CORE CURRICULUM
FOR THE TRAINING OF
FISHERIES INSPECTORS
AND UNION INSPECTORS

2a Landing inspection

Disclaimer

The Core Curriculum for training fisheries inspectors and Union inspectors (manual for the trainer and handbook for the trainee) is a training manuscript. It can be used by Member States administrations and the Commission especially for the training of fisheries inspectors and other fisheries officials.

It is not a legal document and by no means replaces the legislative framework for the application of the common fisheries policy set by the EU or other legal provisions established at EU and at national level.

Carrying out inspections at sea is not without any risk. Although fisheries inspectors should have a thorough training according to safety at sea, this curriculum does not address safety aspects.

Cataloguing data can be found at the end of this publication.

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Foreword

The Core Curriculum project started in 2011 following the adoption of the implementing rules ([1]) of the Control Regulation ([2]). Its overall objective is to contribute to the establishment of a level playing field across the European Union (EU) by providing a common basis to train the trainers and consequently officials involved in fisheries control operations. It was developed in cooperation with Members States and the European Commission through a specific validation process.

The Core Curriculum for the trainers on fisheries inspection constitutes a common knowledge basis that was obtained after it was discussed, agreed and validated at the EU level. It is composed of a manual for the trainers and a handbook for trainees.

First, the manual for the trainers contains comprehensive training guidelines, course objective, case studies and worksheets. It aims at reducing the preparation work by the trainers and improving the effectiveness of the training by targeting the skills and competencies to be acquired by the trainee. The manual promotes common teaching methods for transmitting best practices, thus making possible the diffusion of a harmonized approach for fisheries control independently from the place where the course takes place or the education background of the trainee.

Secondly, the handbook for the trainees presents core information and essential inspection techniques in support to the training course. It provides key explanations necessary to fulfill inspection tasks and successfully check and verify the application of the rules of the Common Fisheries Policy (CFP) by officials of public administrations involved in fisheries controls.

By coordinating the updating of this common and shared knowledge, EFCA encourages better coordination, closer collaboration and the exchange of best practice that will be applied while coordinating regional Joint Deployment Plans (JDPs). Training is a key aspect in this regard.

EFCA would like to acknowledge the work of external experts, the Member States and the European Commission as members of the EFCA Working group and Steering group on Training and Exchange of Experience (TEE), and the Agency's experts who largely contributed to the success of this publication.

([1]) Commission Implementing Regulation (EU) No 404/2011 of 8 April 2011.

([2]) Council Regulation (EC) No 1224/2009 of 20 November 2009.

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- last but not least the Publication Office and the European Commission for their valuable contribution to this project.

2a Landing inspection

Module 1 Perform the initial actions to start an inspection

Section 1.1 Initial actions prior to landing

1. Objective(s)

The module is aimed at providing the trainee with information on what they should have in terms of equipment to perform an inspection at the point of landing and also detail the information which is available to them to make the inspection as comprehensive as possible. It is in effect the toolkit for this type of inspection. The section will guide the trainee to complete points 1 to 14 and 16 to 27 of the minimum information required for the completion of inspection reports ([1]).

2. Overview

The inspection of a vessel on landing is the only opportunity to examine the true nature of what has been retained by the fishing vessel and then landed. The module will show the trainee that there are various pieces of information available, either transmitted by the vessel or available from national or international databases, which can be helpful prior to the landing inspection taking place. The module will also explain to the trainee what tools or equipment should be available to an inspector for the inspection to take place.

An inspector should prepare in the same way for any inspection, that is expect and prepare for the worst-case scenario and so that any inspection can be managed. If possible take duplicates and backups for every form or piece of equipment which may be used. This may be impractical but even the simple act of taking a pen and a pencil to write notes is common sense.

An inspector should execute any procedure with confidence and care. He should take time to speak to the master and set down in clear terms what will be happening during the inspection, what he expects the master to do and what he expects the crew to do.

3. Entry requirements

Trainees should be familiar with the websites of the EU institutions, RFMOs and the secure part of the official websites of the Member States' authorities in order to obtain the necessary preliminary information.

([1]) Article 115 and points 1-14 and 16-27 of Module 3 of Annex XXVII of Commission Implementing Regulation (EU) No 404/2011.

Chapter 1.1.1 — Equipment, forms and data

Part A. Introduction

The inspection of a vessel does not start when an inspector boards the vessel. There are a number of actions which shall be taken by an inspector to prepare for the inspection and ensure that they have all the relevant information and equipment available for the inspection to start.

Part B. Concepts and definitions

(a) **Fishing licence**

A fishing licence, issued by the flag Member State, is required for a vessel to be used for commercial fishing operations ([2]). Details of fishing licences and their validity may be accessed from the secure part of the official website of the flag Member State ([3]).

Note there is no EU legal requirement to keep the fishing licence on board the fishing vessel, even if it is mandatory for a couple of Member States according to their own legislation.

(b) **Fishing authorisations**

Fishing authorisations are required in fisheries subject to a recovery or management plan ([4]), or specific recommendations ([5]). They list the permitted conditions of fishing including the period of validity, authorised species, fishing zones and gear. The authorisations issued may be accessed from the secure part of the official website of the flag Member State, as well as from the websites of regional fisheries management organisations.

(c) **Sea areas** ([6]) ([7]) ([8])

There are a number of international organisations which play a part in defining sea areas for the purposes of fisheries management. The International Council for the Exploration of the Sea (ICES) has an internationally recognised set of coordinates which splits the oceans of the world into ICES areas. These areas are used by quota managers within the EU to define areas for species quota management. The Eastern Central Atlantic between Cape Spartel and the Congo river have areas which are defined by the Fishery Committee for the Eastern Central Atlantic (CECAF) ([9]). Also the Mediterranean areas are set out in the General Fisheries Committee for the Mediterranean (GFCM) ([10]). The areas within the Baltic are covered by the specific regulation covering technical fisheries measures in the area ([11]).

(d) **Vessel history** ([12])

This is a reference to the recent fishing history of the vessel and also any relevant inspections which have carried out on the vessel and any noted areas of concern.

It is a part of the obligations placed upon inspectors to prepare for an inspection by collecting information on previous inspections. Also any information held on secure Member State databases concerning the vessel should be retrieved ([13]).

The decision on whether or not to inspect the vessel depends on whether it is has been identified through risk-based analysis or past history on non-compliance ([14]).

If the vessel is involved in a multi-annual plan fishery there may be a requirement to inspect it ([15]).

([2]) Article 6 of Council Regulation (EC) No 1224/2009.

([3]) Article 116 of Council Regulation (EC) No 1224/2009.

([4]) Article 7 of Council Regulation (EC) No 1224/2009.

([5]) Such as NAFO, NEAFC or ICCAT recommendations.

([6]) http://www.fao.org/fishery/area/search/en

([7]) Annex III of Regulation (EC) No 218/2009 of the European Parliament and of the Council.

([8]) Annex II of Regulation (EC) No 216/2009 of the European Parliament and of the Council.

([9]) http://www.fao.org/fishery/rfb/cecaf/en

([10]) http://www.gfcm.org/gfcm/topic/16162/en

([11]) Annex I of Council Regulation (EC) No 2187/2005.

([12]) Articles 99, 105 and 106 of Commission Implementing Regulation (EU) No 404/2011.

([13]) Art 99(d) of Commission Implementing Regulation (EU) No 404/2011.

([14]) Art 105 of Commission Implementing Regulation (EU) No 404/2011.

([15]) Art 106 of Commission Implementing Regulation (EU) No 404/2011.

(e) **Vessel monitoring system (VMS) data**

Information received from the VMS system on board a vessel equipped with a satellite tracking system will have been received by the relevant Member State(s). The information, in the form of a list of dates, times and locations can be extracted as raw data or possibly in the form of a map showing the track of the vessel so that it is available at the time of the inspection.

(f) **EU fleet register** ([16])

The EU fleet register, which is available online, records details of all registered fishing vessels within the Union. If an inspector knows that a vessel is coming in to land, and they have no previous knowledge about the vessel, it is always worthwhile checking the EU Fleet Register ([17]). An extract of the vessel details can be printed off so that they are available at the time of the inspection.

(g) **Pre-notifications**

Notification of the arrival of a vessel may come in the form of a prior notification message. This may include the notification received from the ERS ([18]), a prior notification ([19]) of the intention to land demersal species subject to a multiannual plan or where the vessel intends landing certain pelagic species ([20]). The message will give details of the species held on board, the intended port of landing and the estimated time of arrival. Prior notification information can be cross checked against ERS data received and any information from inspections at sea.

(h) **RFMO websites**

Regional fisheries management organisations (RFMOs) are international organisations formed by countries with fishing interests in an area ([21]). One example being the **International Commission for the Conservation of Atlantic Tunas (ICCAT)** which is an intergovernmental fishery organisation responsible for the conservation of tunas and tuna-like species in the Atlantic Ocean and its adjacent seas.

([16]) Commission Regulation (EC) No 26/2004.

([17]) http://ec.europa.eu/fisheries/fleet/index.cfm?lg=en

([18]) Item No 149 (PNO) of Annex XII of Commission Implementing Regulation (EU) No 404/2011.

([19]) Articles 17 and 18 of Council Regulation (EC) No 1224/2009.

([20]) Article 80 of Commission Implementing Regulation (EU) No 404/2011.

([21]) http://ec.europa.eu/fisheries/cfp/international/rfmo/index_en.htm

([22]) Article 15.4 of Council Regulation (EC) No 1224/2009.

([23]) Article 10 of Council Regulation (EC) No 1224/2009.

(i) **Electronic reporting system (ERS)**

If not exempted ([22]), fishing vessels of 12 m overall length or more are subject to ERS. This system is used by the master to declare fishing activity, details of the catch and required notifications of, for example, exit and entry from and to a fishery covered by a fishing effort regime, or the intention to land the catch. This data is available to the inspector before an inspection, either directly through the equipment on board the fisheries patrol vessel (FPV) or indirectly from the fisheries monitoring centre (FMC) of the flag Member State.

(j) **Automatic identification system (AIS)**

Fishing vessels with an overall length of 15 m or more are required to operate an AIS system which transmits position, identity and other data almost continuously ([23]). Normally this data is available to the inspector in advance of the inspection.

Part C. Data and information sources

- Logbook
- ERS
- VMS
- Fishing activity reports (FAR) from the ERS
- Fishing authorisations
- Vessel data
- Fishing prohibitions
- RFMO websites

Part D. Methodology

(a) **Inspection form**

An inspector should ensure that, if a paper inspection report is to be used, the appropriate inspection form for landing inspection from the standard EU module ([24]) is used. It is also a good idea to have some form of protection, such as a clear polythene pocket for any paper form which the inspector is going to use.

(b) **Recording equipment**

Apart from the inspection form an inspector may want to carry a notebook for recording information which they can transcribe, or record electronically, on an inspection form. If notes are taken on the facts they can be used to complete the inspection form. If an inspector is going to use a camera then there are a few preparations to be made before using the equipment. The inspector should ensure that the camera works and the battery is charged, the data and time settings are correct (as they will be embedded on any image recorded), they have a spare charged battery and spare storage discs/cards.

(c) **ERS information**

If a vessel has been transmitting ERS data then an inspector may have the opportunity to download this data prior to carrying out an inspection. This may not always be the case but it is always useful to realise that this information exists and should show the catch retained on board prior to the vessel arriving in port. The data received can then be used as a check against the actual catch landed. Masters of fishing vessels of 12 m overall length or more are required to maintain an ERS and transmit the data in the form of a fishing activity report to the flag Member State on at least a daily basis and immediately before entering port. Member States may exempt their fishing vessels of less than 15 m overall length from the requirement to complete and transmit electronic logbook data, if the vessels operate exclusively within the territorial sea of that Member State or never spend more than 24 hours at sea ([25]).

(d) **Vessel history**

The recent landing history of the vessel should be available on the Member State database of landings and this information has to be collected if possible before the inspection takes place. These include details of the licences and authorisations, VMS data, sightings and any previous inspection records ([26]) and previous infringements. However, if the vessel lands very frequently the information may not be up to date. Even if the information on the vessel is days or weeks old it will provide the inspector with information as to where the vessel has been landing and should show if the behaviour of the vessel or the master in previous inspections has raised concerns which should be taken into account. Most of this information will come from inspection reports. The inspection at sea report, if there

([24]) Article 115 and Module 3 of Annex XXVII of Commission Implementing Regulation (EU) No 404/2011.

([25]) Article 15(4)(b) of Council Regulation (EC) No 1224/2009.

([26]) Article 99 of Commission Implementing Regulation (EU) No 404/2011.

is one for the current fishing trip, often proves to be of most use to the inspector as it is a snapshot of what has been found at sea. This information can be compared against the catch found on board with an update of the fishing operations which the vessel has carried out from the time of boarding at sea until its arrival in port.

The vessel history will also include any sightings by fishery patrol vessels, patrol aircraft or other sources. Again this information can be used by the inspector to cross check this information with the VMS record and log sheet data which the master has recorded or transmitted.

When inspections in port are expected the inspector should also be aware that inspections should be considered for the set down categories of identified risks. Firstly vessels which have been specifically identified through a risk based sampling exercise or where it is suspected of failing to comply with common fisheries policy (CFP) rules ([27]). Finally there may be an obligation to inspect the vessel if it is involved in a multi-annual recovery plan ([28]). Each of these deciding factors will be gained from the vessel history and the inspector should use these to determine whether or not the vessel must be inspected.

(e) VMS record

The information from the vessel monitoring system (VMS) can also be downloaded and will be available to the inspector prior to boarding the vessel. The position reports can then be compared to the paper or electronic logbook records of where the catches were taken and the master should be questioned about any discrepancies between the two records.

(f) Fishing licences and fishing authorisations

If the vessel is one which the inspector knows, and possibly issues the entitlements to fish (fishing licences), then the inspector will have a clear idea of what restrictions the vessel operates under. It is still a good idea for the inspector to inspect the fishing licences or fishing authorisation if these are held on board. It has been the case where permits have been issued from a central point that the inspector has not been informed of them being issued.

The need to be aware of fishing entitlements is particularly important where the vessel is one which the inspector has no knowledge of, either one administered by their own Member State or from another Member State. If the inspector has prior knowledge of the vessel arriving in port, then they should make themselves aware of the fishing entitlements which the vessel holds. Fishing entitlements to quota species by sea area are usually available from Member State central databases which record changes to quota entitlements as fisheries open and close. Any changes which open or close fisheries to fishing vessels of Member States are controlled by quota managers within the Member State ([29]) ([30]). The information is then transmitted to the EU which then issues notices which either open or close fisheries. These notices are published in the European Journal which is available on the Internet ([31]).

There may also be fishing authorisations issued to individual vessels which have individual fishing opportunities available to them or there may be a scientific derogation issued which allows the vessel to fish for species which it normally would not be permitted to retain on board or to fish within areas normally closed to fishing vessels. Again these authorisations should be available from the Member State central database or from fisheries managers.

Finally the vessel may have been fishing in an area where there are a restricted number of vessels which are permitted at any time and the vessel has to be included in the list of permitted vessels. Be aware that when these lists, which are usually held by national authorities, are checked the list itself may be out of date because of delays in Member

([27]) Article 105 of Commission Implementing Regulation (EU) No 404/2011.

([28]) Article 106 of Commission Implementing Regulation (EU) No 404/2011.

([29]) The requirement to monitor quotas and close fisheries is contained in Article 34–36 of Council Regulation (EC) No 1224/2009.

([30]) Article 1 of Regulation (EC) No 218/2009 of the European Parliament and of the Council. Article 1 of Regulation (EC) No 216/2009 of the European Parliament and of the Council.

([31]) http://eur-lex.europa.eu

States updating the centrally held database. Before taking any enforcement action the status of the vessel on the list should be thoroughly checked. These lists are normally controlled by national, rather than European, legislation.

(g) **Transhipment declaration** ([32])

For vessels over 10 m in overall length any transhipment operation carried out between vessels must be recorded on either a paper form or transmitted by electronic means (electronic transmission is applicable for vessels over 12 m in overall length). This applies to each species transhipped or received above 50 kg of live weight equivalent. Specific rules apply to species subject to recovery plans. Prior to boarding any vessel the inspector should have an up-to-date record of any transhipment notifications received. Since electronic notifications have to be sent within 24 hours of the completion of the transhipment and paper notifications sent within 48 hours of the completion of the transhipment, the data may not have been received when the inspector carries out the inspection.

(h) **Measuring and weighing equipment**

There is always some requirement to check minimum fish sizes or the dimensions of certain parts of fishing gear or carry out checks on weights of fish held on board a vessel. An inspector should carry, or have available, equipment to carry out these checks.

For measuring nets an inspector should have a calibrated electronic mesh gauge, twine thickness gauge and a tape measure available. Checks on the electronic gauge should be carried out according to national test procedures before using the equipment. A tape measure will be used to measure any attachments to nets which have specific lengths set by legislation.

Fish and shellfish measurements will normally be carried out by means of gauges issued by the national authorities in accordance with the appropriate regional technical conservation regulation (Regions 2 and 3 ([33]), Baltic ([34]) and Mediterranean ([35]) or by using some form of calliper or vernier gauge.

When estimating the quantities of fish held in refrigerated seawater tanks (RSW) the inspector will use a measuring tape with a plate weight on the end of the tape. This is lowered into the tank until the top layer of fish held in the tanks stops the weight. The depth from the top of the tank to the top of the fish layer is used with the set of tank calibration tables required under legislation to estimate the weight of fish in the tanks.

Prior to carrying out any weighing of the catch it is worth knowing if there is a sampling plan in operation at the port. The inspector should be aware of this and have decided or not, to weigh the catch according to this. In most cases where catches are discharged the sampling plan using approved weighing equipment at the port will meet all the needs of the inspection process. Sampling plans are set up according to the rules within the control regulation ([36]).

- **weighing equipment**

Calibrated weighing equipment may be present on the fishing vessel or on the fish market or factory to which the catch is being landed. These scales should carry a calibration certificate.

In all the 'Parts' of this chapter it is a matter of the inspector being aware of what checks may need to be carried out, what information is available to cross check, how they will record what they see and how they can verify data submitted by masters of fishing vessels. It is always a good idea if inspectors get into the routine of compiling a checklist and then using this to check off the individual items for an inspection 'pack' which they will need prior to boarding any vessel or carrying out a landing inspection.

([32]) Article 21 and 22 of Council Regulation (EC) No 1224/2009 and Article 29 of Commission Implementing Regulation (EU) No 404/2011.

([33]) Articles 17 and 18 and Annexes XII and XIII of Council Regulation (EC) No 850/98.

([34]) Article 14 and Annex IV of Council Regulation (EC) No 2187/2005.

([35]) Article 15 and Annexes III and IV of Council Regulation (EC) No 1967/2006.

([36]) Article 60(1) of Council Regulation (EC) No 1224/2009 as read with Articles 76 and 77 of Commission Implementing Regulation (EU) No 404/2011.

- **suggested list of equipment for landing inspection, according to the type of inspection**
  - — Inspection form(s)
  - — Notebook
  - — Pens and pencils
  - — Camera, spare batteries and storage medium
  - — Waterproof bags
  - — Seals and labels
  - — Fish measuring gauges
  - — Electronic mesh gauge
  - — Twine thickness gauge
  - — Tape measure
  - — Torch
  - — Tank capacity tables and dipping tape for RSW tanks
  - — Weighing scales
  - — Test weight
  - — Mobile phone or VHF radio
  - — Gloves
  - — Laptop

Chapter 1.1.2 — Verification of individuals and vessel(s)

Part A. Introduction

When an inspector carries out a landing inspection the information recorded on the inspection form must be accurate. This chapter will deal with the core information which an inspector will need to verify and how they should go about this verification process.

Part B. Concepts and definitions

(a) **Operator**

The 'operator' means the natural or legal person who operates or holds any undertaking carrying out any of the activities related to any stage of production, processing, marketing, distribution and retail chains of fisheries and aquaculture products.

(b) **The master**

The master or captain is the person who is in ultimate command of the vessel. The master is responsible for the safe and efficient operation of the vessel, including fishing operations, navigation, crew management and ensuring that the vessel complies with local and international laws, as well as company and flag state policies. All persons on board, including officers and crew, other shipboard staff members, passengers, guests and pilots, are under the master's authority.

For the majority of fishing vessels the master is required to be properly qualified and licensed and will carry certificates to prove this.

(c) **The fishing captain**

On some vessels there is a fishing captain who is responsible for the fishing operations of the vessel. This person is not the person legally responsible for the activities of the vessel although they may give the appearance of being in command. Sometimes the normal master is not in command and there is a replacement master for all or part of the trip. In this case the legal master is the person who has command at the time of inspection, according to the logbook.

(d) **The owner**

The owner is the natural or legal person registered as owning the vessel. This may be different to the beneficial owner who directs the activities of the vessel.

(e) **The agent**

The agent is the person(s) or companies that provide support to the vessel. The role of the agent is not defined and the services provided will vary with circumstances. The services may include, for example, arranging for the sale of the catch, supplying the vessel with victuals and fuel, vessel maintenance and administrative services such as providing legal documents and insurance. Some vessels may use different agents when they operate away from their home port.

(f) **The charterer**

The charterer is a person(s) or company that have entered into a contract with the owner of a vessel to operate the vessel for their own needs. There are different types of charter contract, for example the hiring of a vessel and crew for a specific one-off task, to the complete hiring (bare boat charter) of the vessel where the charter arranges the complete operation of the vessel, including the crew, and all the administration, acting in all ways as the actual owner. In some Member States the charterer has the same legal responsibility as the owner for complying with fisheries legislation.

(g) **Beneficial owner**

These owners may be recorded on any registration system as beneficial owners. They are persons or companies who may not be directly listed as owners but have a controlling role in the operations of the vessel and benefit from this.

Part C. Data and information sources

Papers or documents held on board which state ownership and vessel registry details.

Part D. Methodology

(a) **Verify the identity of the vessel/partner vessel**

The vessel's name painted on the vessel should be compared with the vessel name in the ship's papers. Note that although very rare, some vessels may not have a name.

Take into account the different national methods and scripts for indicating numbers and letters in different Member States.

The identity of any partner vessel will be entered on the log sheet information.

(b) **Vessel external registration number**

The vessel's external registration number painted on the vessel should be compared with the vessel name in the ship's papers and in the Union fleet register. The marking of the registration number should be in accordance with EU rules.

(c) **Union fleet register number**

The data in the Union fleet register should be consistent with the data in the vessel's documentation and the markings on the vessel.

(d) **International radio call sign (IRCS)**

The IRCS should be recorded as it forms a further unique identification. The marking of the IRCS should be in accordance with EU rules.

(e) **IMO number**

The IMO number if any should be recorded as it forms a further unique identification.

(f) **Flag state**

The flag state should be evident from the vessel's papers and should be recorded as it may affect the application of EU legislation.

(g) **Verify the identity of the master** ([37])**, owner(s)** ([38]) **and beneficial owner** ([39])

Examine personal identification papers such as passport, seaman's book, national identity card and master's certificate. In addition to the identity of the master by name note his/her nationality, date of birth and address. Some of these documents may be classed as private and beyond the power of an inspector to examine.

Ships documents such as the crew list and official log will identify the master.

Ships documents such as the licence/registration documents, permits/fishing authorisations and many others will identify the legal and possibly the beneficial owners.

(h) **Verify the identity of the operator or vessel representative**

Having established the identity of the master there may be the need to confirm the identity of the person in charge of the premises to which the catch is being landed or perhaps the agent for the vessel. As in the case of the master the inspector should ask for any personal identification papers or, if appropriate, company records which identify the person.

(i) **Verify the cooperation of the master** ([40])

In this the inspector should ask the cooperation from the master and explain what will happen during the inspection. Hopefully, getting a confirmation from the master that he understands what is going to happen and what he is expected to do to facilitate the inspection. If the master does not want to cooperate it will only result in the inspector considering a case report against the master for obstruction ([41]). Obstruction is considered to be a serious infringement and the regulations provide for sanctions in the form of penalty points against the master ([42]). The consequences of this action should be explained to the master if it is necessary.

(j) **Verify the fishing activity**

When an inspector boards a vessel and checks documentation prior to a landing taking place they will either have, or be presented with, logbook data which records the fishing gear which has been used to take the catch held on board. The inspector has to assure that the gear which is recorded on the log sheet is the gear which is held on board. This is especially important where the catch composition is dependent upon the gear used. The inspector should not assume that the gear found on board, especially items such as cod-ends, is the gear which has been used to take the catch which is held on board. It is a common practice within the industry for fishermen to transfer cod-ends at sea when another fishing vessel has torn or lost gear. It also may be the case that when pair fishing the catch has been taken by the net which is on board the partner vessel rather than the gear on board the vessel the inspector is checking. It is a good practice for the inspector to ask if the gear he/she finds on board is the gear used on the fishing trip.

([37]) Article 115 and point 23 of Module 3 of Annex XXVII of Commission Implementing Regulation (EU) No 404/2011.

([38]) Article 115 and point 19 of Module 3 of Annex XXVII of Commission Implementing Regulation (EU) No 404/2011.

([39]) Article 115 and point 20 of Module 3 of Annex XXVII of Commission Implementing Regulation (EU) No 404/2011.

([40]) Article 113 of Commission Implementing Regulation (EU) No 404/2011.

([41]) Article 90 paragraph 1 of Council Regulation (EC) No 1224/2009 in conjunction with Article 42 paragraph 1(a) and Article 3 paragraph 1(h) of Regulation (EC) No 1005/2008.

([42]) Article 134 of Commission Implementing Regulation (EU) No 404/2011.

Appendix 1: Bibliography

- Fishing methods: http://www.fao.org/docrep/005/y3427e/y3427e04.htm
- 'Basic Fishing Methods' SEAFISH UK 2005 and
- http://www.scotland.gov.uk/Uploads/Documents/Fishing %20Gear.pdf

Appendix 2: Links and references

- Updates to legislation and quotas — European Legislation site: http://eur-lex.europa.eu
- Union Fleet Register: http://ec.europa.eu/fisheries/fleet/index.cfm?lg=en

Appendix 3: Legislation

- Council Regulation (EC) No 850/98 of 30 March 1998 for the conservation of fishery resources through technical measures for the protection of juveniles of marine organisms.
- Commission Regulation (EC) No 26/2004 of 30 December 2003 on the Community fishing fleet register.
- Council Regulation (EC) No 2187/2005 of 21 December 2005 for the conservation of fishery resources through technical measures in the Baltic Sea, the Belts and the Sound, amending Regulation (EC) No 1434/98 and repealing Regulation (EC) No 88/98.
- Council Regulation (EC) No 1967/2006 of 21 December 2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea, amending Regulation (EEC) No 2847/93 and repealing Regulation (EC) No 1626/94.
- Council Regulation (EC) No 1005/2008 of 29 September 2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing.
- Regulation (EC) No 216/2009 of the European Parliament and of the Council of 11 March 2009 on the submission of nominal catch statistics by Member States in areas other than those of the north Atlantic.
- Regulation (EC) No 218/2009 of the European Parliament and of the Council of 11 March 2009 on the submission of nominal catch statistics by Member States in the north-east Atlantic.
- Council Regulation (EC) No 1224/2009 of 20 November 2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy (CFP).
- Commission Implementing Regulation (EU) No 404/2011 of 8 April 2011 laying down detailed rules for the implementation of Council Regulation (EC) No 1224/2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy (CFP).
- Regulation (EU) No 1343/2011 of the European Parliament and of the Council of 13 December 2011 on certain provisions for fishing in the GFCM (General Fisheries Commission for the Mediterranean) Agreement area and amending Council Regulation (EC) No 1967/2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea.
- Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 693/2004 and Council Decision 2004/585/EC

- Regulation (EU) 2015/812 of the European Parliament and of the Council of 20 May 2015 amending Council Regulations (EC) No 850/98, (EC) 2187/2005, (EC) No 1967/2006, (EC) 1098/2007, (EC) No 254/2002, (EC) No 2347/2002 and (EC) No 1224/2009, and Regulations (EU) No 1379/2013 and (EU) No 1380/2013 as regards the landing obligation and repealing Council Regulation (EC) No 1434/98

Module 2 Inspect conformity of documentation and transmitted information

Section 2.1 Check legal documents

Coverage: EU ports — All vessels

1. Objective(s)

This section covers the legally required documentation on board a fishing vessel. The section will guide the trainee to complete points 15, 28 to 31, 37 and 39 to 40 of the minimum information required for the completion of an inspection report following a landing inspection ([42]).

2. Overview

Fishing activity is highly regulated under the common fisheries policy (CFP) and accordingly it is necessary for certain information to be available during an inspection in order to assess compliance with the rules in force. For example if there is a maximum engine power permitted in certain areas it is necessary the inspector has access to information on the engine power of the vessel being inspected to assess compliance.

Under European Union (EU) rules, not all the information is required to be kept on board the fishing vessel, although this may be required under national rules. The information may be in paper or electronic form on board the vessel or it may be available from the Internet, for example on the secure parts of the Member States websites.

There are a number of documents which are required, by law, to be available to a fisheries inspector when on board a vessel. There are others which, although they are not required, may be available when an inspection is carried out and can be used to improve the quality of the inspection.

3. Entry requirements

This section on documentation is intended for all trainees, including those with a basic knowledge of fisheries control. It would be an advantage, but not essential, to have knowledge of the principles of the common fisheries policy (CFP) and the general concepts of fisheries control.

([42]) Article 115 and points 15, 28 to 31, 37 and 39 to 40 of Module 3 of Annex XXVII of Commission Implementing Regulation (EC) No 404/2011. (Note that a different inspection report format may be required for vessels that have been fishing in non-EU waters covered by a regional fisheries management organisation (RFMO).

Chapter 2.1.1 — Certificate of Registry

Part A. Introduction

This chapter covers the certificate of registry or national registration documentation. It is necessary for the inspector to use this document to identify the vessel to assess compliance with the authorised fishing activity.

Part B. Concepts and definitions

There are no common EU standards for national registration documentation or certificates of registry although vessels of 10 m overall length or more are required to carry documents issued by the competent authorities of the flag Member State in which the vessel is registered showing certain minimum information concerning the identity of the vessel, the owners and the principle dimensions and engine power of the vessel ([43]).

Part C. Data and information sources

Union fleet register ([44]) on the Internet ([45]) for registration data.

Part D. Methodology

The master should be asked to produce the certificate of registry (or similar national document(s) showing the identity of the vessel). The inspector should check the existence of the following data and cross check with other sources of data and observations, such as the name and number of the vessel painted on the side of the hull:

(Note that the words 'certificate of registry' are not mentioned in the legal text ([46]) but are cited as one of the elements of minimum information required for the completion of inspection reports ([47]). The compulsory information required in the legal text ([48]) should be documented according to national rules and shall be presented for the purpose of control and inspection at the request of officials, but it might be found in documents on board other than the 'certificate of registry').

Mandatory:

— name of fishing vessel (if any);
— external identification, that is the port or district letters and number (PLN);
— international radio call sign (IRCS);
— name and address of the owner and if applicable, the charterer;
— length overall;
— propulsion engine power;
— gross tonnage;
— date of entry into service (for EU vessels entered into service after 1 January 1987).

Optional:

— serial number (if any) and period of validity of the national registration documentation;
— issuing authority.

The inspector should investigate any discrepancies such as the document being out of date, or missing data such as the lack of an entry for gross tonnage or any modifications of characteristics. The inspector may check the existence of the registry or the data on the certificate with the Union fleet register either by the Internet or via the fisheries monitoring centre (FMC).

([43]) Article 7(1) of Commission Implementing Regulation (EU) No 404/2011.

([44]) Commission Regulation (EC) No 26/2004.

([45]) http://ec.europa.eu/fisheries/fleet/index.cfm

([46]) Article 7(1) of Commission Implementing Regulation (EU) No 404/2011.

([47]) Article 115 and point 13 of Module 3 of Annex XXVII of Commission Implementing Regulation (EU) No 404/2011.

([48]) Article 7(1) of Commission Implementing Regulation (EU) No 404/2011.

Failure to carry on board official vessel identity documents showing the above mandatory information is an infringement and the inspector should consider enforcement procedures.

The data on the certificate of registry (or vessel identity documents) should be noted and entered into the inspection report.

Chapter 2.1.2 — Fishing licence

Part A. Introduction

This chapter explains how a vessel is licensed to operate commercially. It is necessary for the inspector to check this document in order to know if the vessel may be used for commercial fishing activity.

Part B. Concepts and definitions

A fishing licence is an official document, issued by the national authorities, giving the holder of the licence the right to use the fishing capacity of a fishing vessel for the commercial exploitation of fisheries.

The fishing licence contains, at the least, information concerning the identity of the vessel, the owners, the principle dimensions and the fishing gear of the vessel. A fishing licence may be combined with the certificate of registry to form one document.

EU legislation ([49]) lays down how licences may be issued, managed and withdrawn by the flag Member States and the minimum information that must be contained in the licence. This information must be consistent with the information recorded in the Union fleet register ([50]) and recorded on the Commission website ([51]). A fishing licence is valid for one EU fishing vessel only.

The fishing licence may be suspended temporarily or permanently withdrawn by the flag Member State if the vessel is subject to enforcement action following a serious infringement ([52]). The licence may also be suspended or withdrawn under Union schemes, implemented by the Member States, for the adjustment of fishing effort or capacity.

Part C. Data and information sources

- Union fleet register on the Internet for licence data.
- Secure part of Member State websites for licence data and licence suspensions ([53]).

Part D. Methodology

The master should be asked to produce the fishing licence. The inspector should check the existence of the following data and cross check with other sources of data and observations, such as the certificate of registry and an observation of the method of fishing in use:

(Note there is no EU requirement to keep paper licences on board the fishing vessel although it is normally a requirement under national rules. If a valid licence is not available on board the inspector should check via the Internet or ask the FMC for the data.)

— Union fleet register number;
— name of fishing vessel (if any);
— flag state/country of registration;
— port or district of registration (name and national code);
— external marking;
— international radio call sign (IRCS) (if required under national rules);
— name and address of licence holder, fishing vessel owner and fishing vessel agent;
— engine power (kW);
— tonnage (GT);
— length overall;

([49]) Article 6 of Council Regulation (EC) No 1224/2009 and Article 3 and Annex II of Commission Implementing Regulation (EU) No 404/2011.

([50]) Commission Regulation (EC) No 26/2004.

([51]) http://ec.europa.eu/fisheries/fleet/index.cfm

([52]) Article 43 of Council Regulation (EC) No 1005/2008, Articles 90 and 92 of Council Regulation (EC) No 1224/2009 and Article 129 of Commission Implementing Regulation (EU) No 404/2011.

([53]) Article 116(1)(d) of Council Regulation (EC) No 1224/2009.

— main fishing gear ([54]);

— subsidiary fishing gears.

It is not permitted to use a vessel without a valid fishing licence for the commercial exploitation of living aquatic resources and an inspector encountering such a vessel should consider enforcement procedures.

The inspector should investigate any discrepancies such as the document being out of date, or missing data such as the lack of an entry for fishing gear. If the data in the licence is incorrect without a satisfactory explanation, the inspector should consider infringement procedures.

The data on the licence should be noted and entered into the inspection report.

([54]) In accordance with the International Standard Statistical Classification of Fishing Gear (ISSCFCG).

Chapter 2.1.3 — Fishing authorisation

Part A. Introduction

This chapter explains how a vessel is authorised to carry out fishing activity. It is necessary for the inspector to check the fishing authorisation to know what fishing activity the vessel is authorised to carry out and where it may take place.

Part B. Concepts and definitions

A fishing authorisation is an authorisation issued to an EU fishing vessel operating in EU waters in addition to its fishing licence, entitling it to carry out specific fishing activities. The fisheries or fishing zones where specific fishing activities are authorised are those subject to ([55]):

— a fishing effort regime;

— a multiannual plan;

— a fishing restricted area;

— fishing for scientific purposes;

— other cases laid down by EU legislation.

In these fisheries and zones, fishing activity may only be carried out in accordance with a valid fishing authorisation issued to the vessel.

There are different requirements for fishing authorisations for EU fishing vessels operating in non-EU waters and for non-EU fishing vessels operating in EU waters ([56]).

EU legislation ([57]) lays down how fishing authorisations may be issued and withdrawn by the Member States and the minimum information that must be contained in the authorisation. It is basic requirement that a fishing authorisation may only be issued to a vessel with a valid fishing licence. A fishing authorisation is valid for one EU vessel only. Member States must make available lists of vessels that have fishing authorisations on the secure part of their official websites ([58]).

The document may be combined with the licence to form one single document. The fishing authorisation must contain, at the least, information concerning the identity of the vessel and the permitted conditions of fishing including the date of issue, period of validity and the authorised species, fishing zones and gear.

Note that a fishing authorisation may be called a special fishing permit. These permits were issued under some of the multi-annual recovery plans and they should be considered as a fishing authorisation if they contain the minimum information required in a fishing authorisation ([59]).

Unless otherwise specified fishing vessels of less than 10 m overall length which fish exclusively in the territorial waters of their flag Member State do not need to have a fishing authorisation.

Part C. Data and information sources

Secure part of the websites of Member States for fishing authorisation data.

Part D. Methodology

The inspector should assess whether a fishing authorisation is required for the activity the vessel is engaged.

([55]) Article 7 of Council Regulation (EC) No 1224/2009.

([56]) Council Regulation (EC) No 1006/2008 and Commission Regulation (EU) No 201/2010.

([57]) Article 7 of Council Regulation (EC) No 1224/2009 and Article 4 and Annex III of Commission Implementing Regulation (EU) No 404/2011.

([58]) Article 5 of Commission Implementing Regulation (EU) No 404/2011.

([59]) Article 4(3) of Commission Implementing Regulation (EU) No 404/2011.

The master should be asked to produce the fishing authorisation. The inspector should check the existence of the following data ([60]) and cross check with other sources of data and observations, such as the certificate of registry, the fishing licence (which may form the same document as the authorisation) and an observation of the species caught, the fishing zone and the method of fishing in use, all which may be conditions of the authorisation:

— Union fleet register number;

— name of fishing vessel name (if any);

— external registration letters and number;

— date of issue;

— period of validity;

— conditions of authorisation including, where appropriate, species, zone and fishing gear.

Note there is no EU requirement to keep paper authorisations on board the fishing vessel although it is normally a requirement under national rules. If a valid authorisation is not available on board the inspector should use the Internet or ask the FMC to check the secure part of the official websites of Member States. This check may be made in advance of the inspection.

Carrying out fishing activity without an authorisation, when an authorisation is needed, is not permitted. An inspector encountering such activity should undertake enforcement procedures.

The inspector should investigate any discrepancies such as fishing activity (species, zone and gear) contrary to the conditions of the authorisation or the document being out of date. If these are apparent, the inspector should undertake infringement procedures.

The data on the authorisation should be noted and entered into the inspection report.

([60]) Article 4 and Annex III of Commission Implementing Regulation (EU) No 404/2011.

Chapter 2.1.4 — Engine power certificate

Part A. Introduction

This chapter covers the certificate stating the power of the engine. Access to some fisheries is regulated by engine power when it is necessary the inspector has access to information concerning the engine power stated on the certificate, as it is relevant to compliance by the vessel.

Part B. Concepts and definitions

Engine power certificates are required for all EU fishing vessels whose propulsion engine power exceeds 120 kilowatts (kW) ([61]). Vessels which use exclusively static gear or dredge gear or are auxiliary vessels or are used exclusively in aquaculture do not need an engine power certificate.

An engine power certificate is issued by the authorities of the Member State to certify the maximum continuous output of the propulsion engine(s) of a fishing vessel ([62]) after taking into account any technical modifications ([63]). In addition, engine power must be verified by Member States following a sampling plan based on a risk analysis. It is prohibited to fish with a vessel that is equipped with an engine with a greater power than the power entered in the fishing licence.

There are no EU rules on the format of the engine power certificate. However, engine power is one of the elements which must be shown on the documents issued by the competent authorities of the flag Member State ([64]) to be carried on board. For practical purposes, such a document showing engine power may be considered as the engine power certificate. In some Member States, engine power may be indicated as one of the items on the certificate of registry and/or the fishing licence.

The flag Member State may delegate the certification of engine power to a classification society or similar organisation.

Part C. Data and information sources

The Union fishing fleet register on the Internet ([65]).

Part D. Methodology

The inspector should ask the master for the engine power certificate. There may not be a single stand-alone certificate showing engine power but the information should be indicated on one of the documents issued by the competent authorities of the flag Member State and required to be carried on board ([66]). In many Member States the certified engine power is recorded on the certificate of registration and/or the fishing licence.

Failure to carry on board an official document showing the certified engine power is an infringement and the inspector should consider enforcement procedures.

If the inspector is not satisfied with the documented information of engine power he/she may then examine the main propulsion engine(s) to ascertain if there is a plate showing the make and model of the engine and its power to check if it corresponds with the engine power recorded on the engine power certificate, registry or licence.

If there remain discrepancies, the inspector should use the Internet or ask the FMC to check the data and take enforcement action if necessary.

The data on the engine power certificate (or the document showing this information) should be noted and entered into the inspection report.

([61]) Article 40(1) of Council Regulation (EC) No 1224/2009.

([62]) Article 61 of Commission Implementing Regulation (EU) No 404/2011.

([63]) Articles 39–41 of Council Regulation (EC) No 1224/2009.

([64]) Article 7(1)(e) of Commission Implementing Regulation (EU) No 404/2011.

([65]) http://ec.europa.eu/fisheries/fleet/index.cfm

([66]) Article 7(1)(e) of Commission Implementing Regulation (EU) No 404/2011.

Chapter 2.1.5 — Fish room certificate

Part A. Introduction

This chapter covers the fish room certificate. The inspector uses the fish room certificate as one of the tools to assess the quantity of fish on board.

Part B. Concepts and definitions

A fish room certificate is a document with accurate drawings and description, of the fish rooms (storage spaces) and the access points to these spaces. It includes the storage capacity of the fish rooms in cubic metres. The fish room certificate is required for EU vessels of 17 m length overall and over and it must be certified by the competent authority of the flag Member State and be kept on board the fishing vessel ([67]). Any modification of the characteristics contained in the fish room certificate should also be certified by a competent authority of the flag Member State ([68]).

(Note that the words 'fish room certificate', are not mentioned in the legal text ([69]), but are referred to as a document showing 'accurate drawings with description of its [the vessel's] fish rooms …'. However the words 'fish room certificate' as such are mentioned in the model inspection report ([70]) for a landing inspection).

Part C. Data and information sources

None

Part D. Methodology

The inspector should ask the master for the fish room certificate and check that it contains drawings and description of the fish rooms, the access points and the cubic capacity in cubic metres. The inspector should also check it has been certified by a competent authority of the flag Member State and it is up to date. The inspector should be satisfied that all the fish storage spaces are recorded on the certificate and that there are no hidden unrecorded spaces.

Failure to carry a fish room certificate, or the carriage of a fish room certificate that does not show all the fish storage spaces, is an infringement and the inspector should consider enforcement procedures.

The existence and validity on the fish room certificate should be noted and entered into the inspection report.

The fish room certificate will be used in the procedure to assess the quantity of fish on board.

([67]) Article 7(2) of Commission Implementing Regulation (EU) No 404/2011.

([68]) Article 7(4) of Commission Implementing Regulation (EU) No 404/2011.

([69]) Article 7 of Commission Implementing Regulation (EU) No 404/2011.

([70]) Point 39 of Module 3 of Annex XXVII of Commission Implementing Regulation (EU) No 404/2011.

Chapter 2.1.6 — Ullage tables for refrigerated seawater tanks

Part A. Introduction

This chapter covers the document which indicates the calibration of the chilled or refrigerated seawater (RSW) tanks, typically seen on larger pelagic fishing vessels. The inspector uses the calibration tables as one of the tools to assess the quantity of fish on board.

Part B. Concepts and definitions

An ullage table for a chilled or refrigerated sea water tank is a document showing the volume in a tank in cubic metres at 10 cm intervals ([71]). It is normally expressed as the ullage or space remaining above any fish in the tank so that, for example, a tank full of fish would have an ullage value of zero.

Chilled or refrigerated seawater tanks are normally used for the storage of large quantities of fresh pelagic fish, for example, herring or mackerel and typically, a vessel would have six or more such tanks, each with a different volume, each tank requiring a separate ullage table. The ullage tables are required to be certified by the competent authorities of the flag Member State and to be kept on board the fishing vessel. Any modification of the characteristics contained in the ullage tables should be certified by a competent authority of the flag Member State ([72]).

A chilled or refrigerated seawater tank is different to a seawater vivier hold used on some shellfishing vessels. One these vessels the live catch is stored in a hold full of seawater with a system to allow seawater to be pumped, or to flow, through the hold. Ullage tables are not required on a vessel with a seawater vivier hold used to store shellfish.

Part C. Data and information sources

None

Part D. Methodology

On vessels with chilled or refrigerated seawater tanks, the inspector should ask the master for the document indicating the calibration of the tanks. This document should show the volume of the tanks at 10 cm intervals and it should indicate to which tank it refers, for example 'starboard forward'. The inspector should be satisfied the document is valid, for example if it matches the configuration of the tanks on board, if the correct particulars of the vessel are indicated and that it is properly certified by the competent authority of the flag Member State.

Failure to carry ullage tables, or to carry incorrect tables, is an infringement and the inspector should consider enforcement procedures.

The existence and validity on the ullage tables should be noted and entered into the inspection report.

The ullage tables will be used in the procedure to assess the quantity of fish on board.

([71]) Article 7(3) of Commission Implementing Regulation (EU) No 404/2011.

([72]) Article 7(4) of Commission Implementing Regulation (EU) No 404/2011.

Appendix 1: Bibliography

Not applicable

Appendix 2: Links and references

- Fleet register: http://ec.europa.eu/fisheries/fleet/index.cfm
- Fishing authorisations: Secure part of Member State websites
- Fishing gear: International Standard Statistical Classification of Fishing Gear (ISSCFCG)

Appendix 3: Legislation

- Council Regulation (EC) No 850/98 of 30 March 1998 for the conservation of fishery resources through technical measures for the protection of juveniles of marine organisms.
- Commission Regulation (EC) No 26/2004 of 30 December 2003 on the Community fishing fleet register.
- Council Regulation (EC) No 1005/2008 of 29 September 2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing, amending Regulations (EEC) No 2847/93, (EC) No 1936/2001 and (EC) No 601/2004 and repealing Regulations (EC) No 1093/94 and (EC) No 1447/1999.
- Council Regulation (EC) No 1006/2008 of 29 September 2008 concerning authorisations for fishing activities of Community fishing vessels outside Community waters and the access of third country vessels to Community waters, amending Regulations (EEC) No 2847/93 and (EC) No 1627/94 and repealing Regulation (EC) No 3317/94.
- Council Regulation (EC) No 1224/2009 of 20 November 2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy (CFP).
- Commission Regulation (EU) No 201/2010 of 10 March 2010 laying down detailed rules for the implementation of Council Regulation (EC) No 1006/2008 concerning authorisations for fishing activities of Community fishing vessels outside Community waters and the access of third country vessels to Community waters.
- Commission Implementing Regulation (EU) No 404/2011 of 8 April 2011 laying down detailed rules for the implementation of Council Regulation (EC) No 1224/2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy (CFP).

Section 2.2 Check required declarations by the master or other relevant persons

Coverage: EU ports — All vessels

1. Objective(s)

This section covers the legally required declarations of catch and fishing effort from a fishing vessel. The section will guide the trainee to complete points 24, 25, 32 to 36 and 38 of the minimum information required for the completion of an inspection report following a landing inspection ([73]).

2. Overview

Under the common fisheries policy (CFP) many fish stocks are managed by a quota on the quantities taken or by the amount of fishing time (effort). The master must make certain declarations of fishing activity so that quotas and effort can be managed and inspectors can target their activity and assess compliance with the CFP. This section provides guidance to the inspector on how to check these declarations as part of a landing inspection.

3. Entry requirements

This section on declarations is intended for all trainees, including those with a basic knowledge of fisheries control. It would however be an advantage, but not essential, to have knowledge of the principles of the common fisheries policy (CFP) and general concepts of fisheries control.

([73]) Article 115 and points 24, 25, 32-36 and 38 of Module 3 of Annex XXVII of Commission Implementing Regulation (EC) No 404/2011. A different inspection report format may be required for vessels that have been fishing in the regulatory area of a regional fisheries management organisation (RFMO).

Chapter 2.2.1 — Reports during voyage of catches and positions

Part A. Introduction

This chapter covers the reports during a fishing voyage of catches and positions that are necessary under a fishing effort regime. These are some of the tools required to control the presence of a fishing vessel in a geographical area in order that the effort in terms of days at sea can be managed.

It is necessary to notify the fishing gear to be used in a fishing effort regime, as normally the allocation of effort or days allowed at sea varies with the type of gear to be used.

The fishing effort reports described in this chapter are not included in the list of minimum information required for the completion of an inspection report following a landing inspection ([74]).

Part B. Concepts and definitions

(a) Catch and activity reports

- **Effort messages**

Effort messages are reports of entry and exit into and from geographical fishing zones covered by a fishing effort regime and details of the catch on board. The messages must be sent in manual form (see subpart (c)) from vessels not required to submit electronic logbooks ([75]) or in electronic form by vessels required to submit electronic logbooks (see subpart (d)).

(b) Notifications

- **Before return to port** ([76])

Prior notifications of the estimated time of arrival at port are required as follows:

Masters of vessels of 12 metres overall length or more, under the obligation to record logbook data electronically, fishing stocks subject to a multiannual plan, are required to give a notification to the competent authorities of the flag Member State of at least four hours in advance of arrival of i) vessel identity, ii) intended port and purpose, iii) dates and fishing zones of trip, iv) date and time of arrival, v) quantities of each species recorded in the logbook, including those below the applicable minimum conservation reference size ([77]) and vi) quantities of each species to be landed or transhipped. ([78])

For all vessels not under the obligation to record logbook data electronically and landing in another Member State, a prior notice of landing is required four hours in advance of arrival, sent to the competent authorities of the landing Member State. ([79])

- **Gear notifications**

A gear notification is a notification made by the master (or his/her agent/representative) of the vessel about which gear/gears he/she is intending to use in the relevant geographical area during the period to which maximum fishing effort applies. ([80])

There is no requirement under EU rules to keep a copy of the notification of return on board.

Within the rules of the electronic reporting system (ERS), it is compulsory to declare the 'gear on board' at the time of departure from port. Normally the notified gear is part of the special fishing permit (or fishing authorisation) ([81]). Although there is no EU rule requiring the permit to be kept on board it is frequently a national requirement and the

([74]) Article 115 and Module 3 of Annex XXVII of Commission Implementing Regulation (EU) No 404/2011.

([75]) Article 28 of Council Regulation (EC) No 1224/2009.

([76]) Article 17 of Regulation (EC) No 1224/2009.

([77]) Article 17 (1) (e) of Regulation (EC) No 1224/2009.

([78]) Article 17(1)(f) of Council Regulation (EC) No 1224/2009.

([79]) Article 18 of Council Regulation (EC) No 1224/2009.

([80]) Article 27 of Council Regulation (EC) No 1224/2009.

([81]) Article 4 and Annex III of Commission Implementing Regulation (EU) No 404/2011.

flag Member State must make list of special permits available via the secure parts of their websites to other Member States ([82]).

(c) Manual reporting

For vessels that complete paper logbooks effort messages must be sent by radio, e-mail or similar means ([83]). There is a standard format for manually transmitted effort messages ([84]). This format lists the data required in the effort message in terms of the identity of the vessel, the geographical zones to be entered or exited and the catch on board. The messages must be sent to the flag Member State, and where appropriate to the coastal Member State, between 12 hours and 1 hour before an entry or an exit.

For vessels that enter and exit a fishing zone several times in one day, in a trans-zonal fishery within 5 nautical miles either side of the line between the fishing zones, only the first entry and last exit in a 24-hour period must be communicated ([85]).

Member States may adopt alternative measures providing that they are equally as effective as those under EU rules ([86]). For example, they may not require entry and exit messages if it is from and to a port situated within the zone of the fishing effort regime if the information is already recorded by VMS and in the logbook.

Fishing effort messages should also be recorded in the paper logbook in accordance with the instructions in the regulation ([87]). These include crossing effort zones without fishing, entry and exit to and from an effort zone, trans-zonal fishing and for passive fishing gear the setting, resetting and finishing fishing operations.

For all vessels not under the obligation to record logbook data electronically and landing in another Member State, a prior notice of landing is required at least 4 hours in advance of arrival in port, to be sent to the competent authorities of the landing Member State ([88]). See Chapter 2.2.4 for more information on prior notification.

(d) Electronic recording and reporting system (ERS)

For vessels that complete electronic logbooks, effort messages and landing notifications are sent using the electronic reporting system (ERS) in the same way as the regular catch information.

Effort messages and landing notifications are sent as catch on entry or catch on exit messages, trans-zonal fishing, crossing and prior notification of return ([89]).

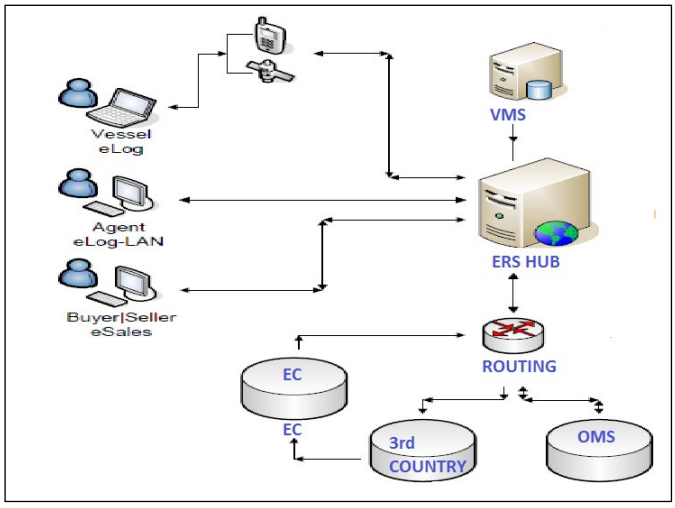


Figure 1 — *Schematic of a typical electronic recording and reporting system*

([82]) Article 5 of Commission Implementing Regulation (EU) No 404/2011.

([83]) Article 28 of Council Regulation (EC) No 1224/2009.

([84]) Articles 31, and 58 and Annexes X, and XVII of Commission Implementing Regulation (EU) No 404/2011.

([85]) Paragraph 4 of Annex XVII of Commission Implementing Regulation (EU) No 404/2011.

([86]) Article 28(2) of Council Regulation (EC) No 1224/2009.

([87]) Paragraph 3 of Annex X of Commission Implementing Regulation (EU) No 404/2011.

([88]) Article 18 of Council Regulation (EC) No 1224/2009.

([89]) Article 58 and Annex XVII of Commission Implementing Regulation (EU) No 404/2011.

- **The FMC**

The core component in the fisheries monitoring centre (FMC) receives data from fishing vessels, sales organisations, agents, other Member States, regional fisheries management organisations (RFMOs) and third countries. The ERS hub sorts and stores data, and routes data to other Member States, RFMOs and third countries.

- **Access to ERS data**

In most cases inspectors carrying out a landing inspection will have access to ERS data, either manually via the FMC or using a secure mobile Internet connection.

- **Fishing vessel on-board data unit**

The on-board unit consists of a data entry device, usually a PC or laptop with embedded software, which allows the master to enter, edit and store the various mandatory reports. Data entry screens are generally designed to facilitate data entry and navigate through the system in a logical and uncomplicated manner and many of the systems currently installed on-board EU fishing vessels have a broadly similar layout.

- **ERS declarations**

The following is a list of the principal ERS declarations.

— *Departure from port declaration*

When a fishing vessel departs from port a departure message must be transmitted. The declaration details include the identity of the vessel and master, the date, time and port of departure along with details of any catch retained on board from the vessel's previous fishing trip. In addition the master should detail his intended activity during the fishing voyage, e.g. fishing, transit, guard ship duty — other non-fishing type activities can be reported. The declaration also makes it compulsory for the master to record the fishing gear on board on departure from port.

In principle a master may not commence a fishing trip without having an operational ERS system on board ([90]). The departure declaration, combined with a successful acknowledgement message provides the master with confirmation the system is operational.

— *Fishing activity report declaration*

The declaration must include the following information:

- — the fishing gear used, its dimensions and mesh size if applicable;
- — the species caught in live weight (kgs);
- — the geographical area where the fish were caught;
- — all fish discarded by species above 50 kg.

- *Operating in more than one ICES area*

If a master fishes in more than one ICES division or fishing zone on the same 24-hour period, the master must submit a separate fishing activity report, detailing the catches, for each ICES division or fishing zone.

- *No catch to report*

When sending a report with no catch information then gear and area must be reported.

- *Pair fishing*

Vessels which pair fish must record details of their partner vessel. Only the vessel receiving the fish should record the catch. To record details of a partner vessel the relocation [RLC] report should be completed at the beginning of the voyage and should only be transmitted again if there is a change of partner vessel during the current voyage.

- *Fishing gear*

If different gears or mesh ranges are used on the same day, then a separate fishing activity report for each gear or mesh range must be recorded and reported.

([90]) Articles 36(1) and 39(4) Commission Implementing Regulation (EU) No 404/2011.

- *Recording haul by haul*

In certain situations, masters will be required to record their fishing activity on a haul-by-haul basis or for each operation; for example, vessels operating in some third country waters or waters under the jurisdiction of an RFMO, trawlers operating with a deep sea licence or vessels fishing with static gear. However, masters recording each haul or fishing operation may transmit all relevant reports for that day in one data communication.

- *Lost gear*

If any fishing gear is lost then this must be reported as soon as possible; a gear lost declaration should be submitted.

- *Fishing area*

When reporting fishing area the master should record the geographical area where the majority of catch was taken.

- *Inspection*

If a vessel is being inspected then the electronic logbook must be brought up to date prior to being inspected.

— *Landing obligation*

Masters must record species subject to the landing obligation, below the applicable MCRS over 50 kg live weight ([91]) as a separate entry; (BMS)

— *Discard declaration* ([92])

Masters must record and report as a separate entry all estimated discards above 50 kg live weight equivalent in volume for any species to which the landing obligation does not apply (DIS) (this is covered in Section 5.2).

Masters must record all discards above all estimated discards above 1 kg live weight equivalent for any species to which the landing obligation does apply, but which can be discarded under - the “de minimis” exemptions (DIM);

- high survivability species (DIS);
- all protected species or fish damaged by predators (DIS).

— *Catch on entry and catch on exit declarations* ([93])

Catch on entry and exit reports are used when reporting a fishing vessel’s entry or exit from fishing areas under effort regimes. These reports may also be required when a master intends to fish in the waters of a third country or RFMO.

— *Trans-zonal fishing effort declaration* ([94])

A trans-zonal fishing effort declaration is used by vessels that enter and exit a fishing zone several times in 1 day, in a trans-zonal fishery within 5 nautical miles either side of the line between the fishing zones. Only the first entry and last exit must be communicated.

— *Prior notification of arrival declaration* ([95])

When a Union fishing vessel intends to enter a port in a Member State other than the flag Member State, the competent authorities of the flag Member State shall immediately upon receipt forward the electronic prior notification to the competent authorities of the coastal Member State.

— *Prior notification of transfer declaration*

To be used under the bluefin tuna rules.

— *End of fishing report*

The submission of this report confirms that the fishing activities recorded in the logbook have been finalised. The report must be submitted prior to entering the port where the landing will take place.

([91]) Article 14(2)(f) of Council Regulation (EC) No 1224/2009.

([92]) Article 14 (4) of Council Regulation (EC) No 1224/2009.

([93]) Annex X(3) of Commission Implementing Regulation (EU) No 404/2011.

([94]) Annex X(3) of Commission Implementing Regulation (EU) No 404/2011.

([95]) Article 17 of Council Regulation (EC) No 1224/2009.

— *Return to port report*

This report details the date and time when the vessel returns to a port. Additionally, the master should record the reason for arriving in port, e.g. landing, sheltering.

— *Transhipment report*

Transhipments of catches to another vessel in EU waters can only take place within a designated port or location near a port. The report must be transhipped within 24 hours of completion of the transhipment operation.

— *Relocation report*

Used when part or all of the catch is moved to another vessel (as may be the case for pair trawlers) or when catch is placed live in keep pots (as may be the case for shellfish vessels).

— *Landing declaration*

Details of the landing, to be transmitted after the landing of the catch.

— *Transport declaration*

The transport document may be transmitted before the transport of fish begins.

- **Other reporting criteria**

— *Corrections ([96]):*

Masters may transmit corrections to the electronic logbook reports up until the return to port declaration. It is an ERS requirement that any corrections made by the master must be easily identifiable and that all original reports and corrections to these reports are recorded and stored by the competent authorities. The system does not permit original data to be overwritten.

— *Return messages ([97]):*

All (ERS) messages transmitted by the master of a fishing vessel and successfully received by the FMC must be acknowledged by a system-generated return message. The return message is sometimes referred to as an 'ACK' or 'NACK' message as some systems will include within the return message confirmation that the message has been received in the correct format (ACK) or the message has been received but there is a problem with the content format (NACK). Return messages must be retained on board until the end of the fishing trip.

— *Manual reporting ([98]):*

Included within the regulations are measures to address technical system failures on the fishing vessel while at sea. In the event of a technical failure, masters or their representatives must forward the required reports to the competent authorities of the flag Member State using the same delivery criteria as required for electronic submissions and using delivery systems as dictated by the Member State. The FMC must then ensure the received reports are entered into the electronic data-base without delay on their receipt. In theory, this should ensure that a full record of the fishing trip is available to inspectors at sea despite the technical failures on board the fishing vessel.

— *Non-receipt of data ([99])*

If the flag Member State authorities have not received (ERS) data whilst a vessel is at sea, they shall notify the master as soon as possible and the authorities of the coastal Member State if the vessel is present in those waters. The master must then immediately send all the missing data. If this occurs more than three times in a calendar year, then the (ERS) system on the vessel must be thoroughly checked.

- **Exemptions**

A Member State may exempt masters of EU fishing vessels of less than 15 m overall length flying its flag from ERS if they ([100]):

([96]) Article 47 of Commission Implementing Regulation (EU) No 404/2011.

([97]) Article 38 of Commission Implementing Regulation (EU) No 404/2011.

([98]) Article 39 of Commission Implementing Regulation (EU) No 404/2011.

([99]) Article 40 of Commission Implementing Regulation (EU) No 404/2011.

([100]) Article 15(4) of Council Regulation (EC) No 1224/2009.

— operate exclusively within the territorial seas of the flag Member State;
— never spend more than 24 hours at sea from the time of departure to the return to port.

Additionally ERS does not apply to EU fishing vessels used exclusively for the exploitation of aquaculture ([101]).

Master of EU fishing vessels that electronically record and report data are exempt from the obligation to complete a paper logbook, landing declaration and transhipment document ([102]).

Part C. Data and information sources

ERS

The secure part of Member State websites for lists of special fishing permits.

Part D. Methodology

(a) Catch and activity reports

- **Effort messages**

The inspector will first need to assess if effort messages are required for the type of fishing activity carried out by the vessel and in what form they should be recorded. The following checklist may be used:

— Is there a fishing effort regime in place where the vessel was operating?
— Had the vessel transited, without the intention of fishing and with gear lashed and stowed? If yes, has the vessel made a 'crossing' effort message?
— Has the vessel has been outside the geographical fishing zones covered by the fishing effort regime during the current trip? If yes, see entry and exit messages. It may be necessary to refer to VMS records.
— Has the vessel fished within an effort zone not exceeding 5 nautical miles either side of the line separating two effort zones? If yes, it must record its first entry and last exit during a period of 24 hours in a trans-zonal message.
— Has the vessel used static gear? If yes see the 'setting', 'resetting' and 'finishing' messages. In ERS the relevant sub-declarations are gear deployment, gear shot, gear retrieved, gear lost.

Once it has been established an effort message is needed to be recorded inspectors will need to check the following required elements:

— the word 'entry', 'exit', 'trans-zonal', 'setting', 'resetting' or 'finishing';
— the effort zone;
— position in latitude and longitude;
— the time of entry, exit, etc. (first and last times for trans-zonal messages);
— the catches retained on board by species at the time of entry, exit, etc.;
— the target species.

See the implementing rules for a full description of the required elements ([103]).

(b) Notifications

- **Before return to port** ([104])

The prior notification before return to port is made immediately before the end of the fishing trip and it is unlikely to form a check during an inspection at sea. If, however, it is apparent during an inspection on board a vessel that entry to port is imminent and the vessel should make a prior notice of entry to port, the inspector can make enquiries to check if the notification has in fact been made. The inspector should note that the

([101]) Article 36(2) of Commission Implementing Regulation (EU) No 404/2011.

([102]) Article 15(5) of Council Regulation (EC) No 1224/2009.

([103]) Article 37 and Annex X of Commission Implementing Regulation (EU) No 404/2011.

([104]) Article 17(1) of Regulation (EC) No 1224/2009.

master is obliged to include in his/her message quantities of those species recorded in the logbook and retained on board which are subject to the landing obligation. ([105])

- **Gear notifications**

If in an area subject to a fishing effort regime and the vessel activity is regulated by that regime, the master should be asked for the special fishing permit (or fishing authorisation) which should be in-date and show the notified gear type. If the permit is not available, the inspector should check with the flag Member State's secure website or by direct contact with the FMC of the flag Member State. This check may be made in advance of the inspection. In the ERS departure declaration it is compulsory for the master to record the fishing gear on board on departure from port.

Fishing with a gear that has not been notified in a fishery subject to a fishing effort regime is an infringement.

(c) Manual reporting

The following checklist may be used which supplements the checklists for effort messages and return to port notifications above:

— Did the vessel leave from a port in the fishing effort regime zone? If yes, is there a paper logbook entry or is there an equivalent national measure (it may be useful to check this before the inspection with the flag state FMC).

— Is vessel required to complete a paper logbook? If yes, see recorded messages in logbook.

([105]) Article 15 of Regulation (EU) No 1380/2013.

Chapter 2.2.2 — The VMS System

Part A. Introduction

The objective of this chapter is to enable the trainee to understand the operational use of VMS during landing inspections. The chapter covers point 24 (VMS check pre arrival) of the minimum information required for the completion of inspection reports ([106]).

The vessel monitoring system, or VMS as it is widely known, is a satellite-based method of transmitting position data from a fishing vessel to the control authorities. It is a very powerful tool that allows the authorities to monitor fishing vessels in near real-time to target control and to check the historical positions of a fishing vessel for compliance with catch records and restricted areas.

Part B. Concepts and definitions

(a) How VMS operates

- **Technical functions**

The VMS equipment receives position data from navigational satellites using the Global Positioning System (GPS) and then re-transmits the data to the flag state control authorities through a communication satellite. In the European Union, the data is then passed on as necessary to other flag states, European institutions such as the European Fisheries Control Agency (EFCA), third countries and RFMOs. These agencies then pass the data on to their inspection services at sea and on land.

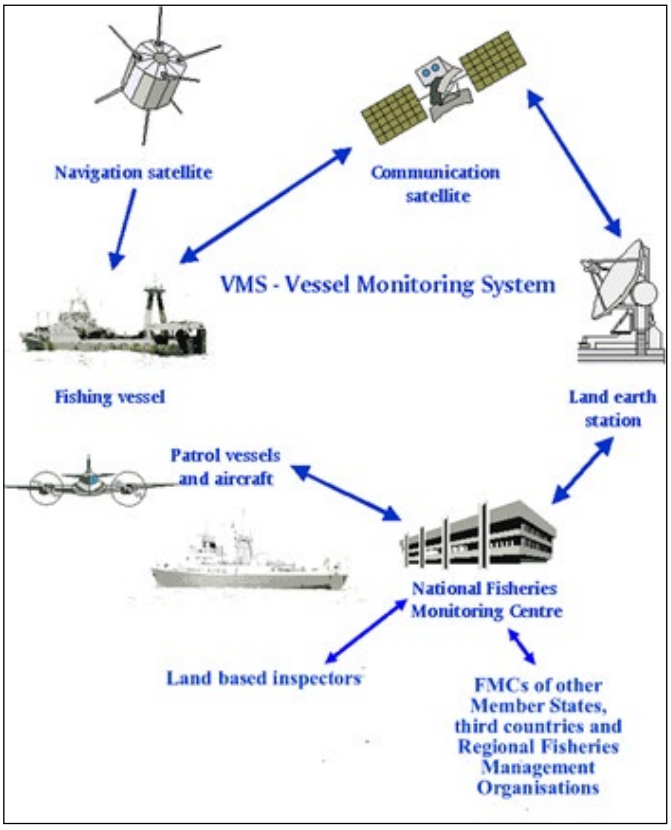


Figure 2 — *Schematic of VMS data flow*

([106]) Article 115 and point 24 of Module 3 of Annex XXVII of Commission Implementing Regulation (EU) No 404/2011.

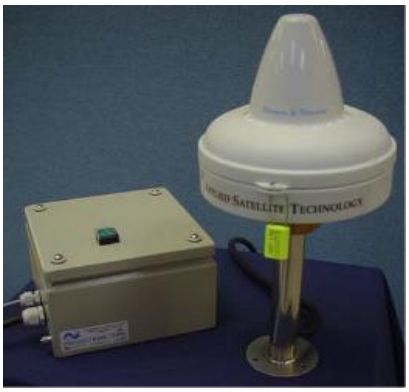


Figure 3 — *VMS data processor (on left), VMS antenna (on right)*

- **Presentation of VMS data**

There are software systems that process VMS position data and present it in the form of an electronic chart showing the position, speed and heading of fishing vessels and their past activity. This is overlain with geographic information showing the coastline and fishing zones. This is very useful for the inspector to check compliance with access rights and to plan control activity.

Most VMS systems incorporate automatic alarms, for example to warn when a fishing vessel is crossing into a prohibited area or when the VMS equipment fails to transmit.

(b) **Responsibilities**

- **Fisheries monitoring centre**

The fisheries monitoring centre (FMC) is a key link in the flow of VMS data between the fishing vessel and the control services. It is an operational centre established by the flag state and is equipped with computer hardware and software that enables the automatic and immediate reception of VMS data, and the processing and re-transmission of the data. The setup of an FMC differs from country to country but it is normally an integral part of the fisheries control headquarters of an individual country. The FMC can, however, be a stand-alone centre which only processes VMS data, or it can be incorporated into another organisation, such as a maritime search and rescue organisation.

In the European Union, Member States are required to set up fisheries monitoring centres ([107]).

- **Flag state responsibilities**

Flag Member States are required to monitor the activities of their fishing vessels by VMS wherever those vessels may be ([108]).

In the case of fisheries in third country waters or in areas of the high sea managed by an RFMO, the VMS data must be re-transmitted to that country or organisation if required by an international agreement with the country or organisation ([109]).

Some third countries may require fishing vessels to have a separate VMS system, when fishing in their waters, where the VMS data is sent directly to the authorities of that third country.

- **Exchange of data**

The following data should be exchanged when fishing vessels operate in the waters of another Member State:

— The flag Member State must re-transmit VMS data automatically and immediately to that coastal Member State during the time the fishing vessel is present in the waters of the coastal Member State ([110]). Member States should have a clear and

([107]) Article 9(7) of Council Regulation (EC) No 1224/2009.

([108]) Article 9(1) of Council Regulation (EC) No 1224/2009.

([109]) Article 9(4) of Council Regulation (EC) No 1224/2009.

([110]) Article 9(3) of Council Regulation (EC) No 1224/2009 and Article 24 of Commission Implementing Regulation (EU) No 404/2011.

documented procedure for this purpose. The data is not re-transmitted to other Member States or the coastal Member State when the vessel is not present in its waters.

— In case of non-functioning of a VMS device on a fishing vessel, the flag state FMC shall send the manually transmitted geographical positions immediately on receipt to the coastal state FMC ([111]).
— If VMS data has not been received for 12 hours, the flag state FMC should notify the coastal FMC without delay if the last transmitted position was from within the waters of that coastal Member State ([112]).
— If the competent authorities of a coastal Member State observe an applicable fishing vessel in its waters but have not received any VMS data they should inform the flag state FMC ([113]) and the master of the fishing vessel.
— VMS data shall be made available upon request by a Member State in whose port a fishing vessel is likely to land its catches ([114]).
— The Commission may request Member States to re-transmit VMS data for specific vessels and during a specific time automatically and immediately to the Commission or to the European Fisheries Control Agency (EFCA) ([115]).

- **Coordinates of Member State waters**

Member States shall communicate the geographical coordinates of their exclusive economic zones (EEZ) to each other and to the Commission ([116]). These coordinates may be published on the public part of their websites.

- **Which vessels require VMS**

All European Union vessels of 12 m overall length or more, with a few exceptions (see below) are required to have a fully functioning VMS device installed on board ([117]).

All third country fishing vessels operating in European waters, including auxiliary vessels, of 12 m overall length or more are required to have a fully functioning VMS device installed on board ([118]). Third country vessels are required to transmit their VMS data to the coastal fisheries monitoring centre (FMC) responsible for the waters they are operating in.

— **Exemptions**

Member States may exempt vessels of less than 15 m overall length from the requirement to be fitted with a VMS device if (a) the vessel operates only in the territorial sea of the flag Member State or (b) the vessel never spends more than 24 hours at sea ([119]).

(c) Transmission of VMS data

- **What data is transmitted**

The VMS device should transmit:

— the fishing vessel identification;
— the most recent geographical position with a position error of no more than 500 m;
— the date and time (expressed in coordinated universal time — UTC) of the fixing of the said position of the fishing vessel;
— the instant speed and course of the fishing vessel;
— the VMS device should be tamper-proof. That is it cannot be capable of the input or output of false signals or of being manually over-ridden. Most Member States require the VMS device to have an anti-tamper sensor inside the unit and for it to be sealed before installation in the vessel. In addition, the device may carry a unique number marked on the outside of the unit and recorded in the firmware inside.

- **When is data transmitted**

VMS data should generally be transmitted from the fishing vessel to its flag state FMC at least once every 2 hours ([120]).

([111]) Article 25(2) of Commission Implementing Regulation (EU) No 404/2011.

([112]) Article 26(2) of Commission Implementing Regulation (EU) No 404/2011.

([113]) Article 26(3) of Commission Implementing Regulation (EU) No 404/2011.

([114]) Article 9(3) of Council Regulation (EC) No 1224/2009.

([115]) Article 28 of Commission Implementing Regulation (EU) No 404/2011.

([116]) Article 24(3) of Commission Implementing Regulation (EU) No 404/2011.

([117]) Article 9(2) of Council Regulation (EC) No 1224/2009.

([118]) Article 9(6) of Council Regulation (EC) No 1224/2009.

([119]) Article 9(5) of Council Regulation (EC) No 1224/2009.

([120]) Article 22(1) of Commission Implementing Regulation (EU) No 404/2011.

In addition, the flag state FMC should be able to poll the actual position of each of its fishing vessels. This means sending an electronic signal from the FMC to the VMS device on the fishing vessel, which will automatically cause the VMS data to be transmitted immediately ([121]).

There are reciprocal agreements for VMS with non-EU countries and RFMOs, where the vessel's position must be reported once every hour.

The frequency of the transmission of VMS data should be increased to once every 30 minutes when a fishing vessel enters a 'fishing restricted area' ([122]). These are areas defined as 'a marine area under the jurisdiction of a Member State which has been defined by the Council and where fishing activities are either limited or banned' ([123]).

(d) Other systems

- **Automatic identification system**

The automatic identification system (AIS) is a collision-avoidance system where the vessel automatically transmits information, such as position, heading and speed, and navigational status, at regular intervals, via a VHF transmitter built into an AIS transponder. The information originates from the vessel's navigational sensors, typically its GPS receiver and gyrocompass. Other information, such as the vessel name and VHF call sign, is programmed when installing the equipment and is also transmitted regularly. The signals are received by AIS transponders fitted on other vessels or on land-based systems, such as vessel traffic services (VTS) systems or can be received via the Internet. The received information can be displayed on a screen or chart plotter, showing the positions of the other vessels.

AIS has a useful secondary function in fisheries control in that it can be used in much the same way as VMS, but since the transmissions are almost continuous (approximately every 10 seconds) there are no gaps in data which is the case with VMS (up to 2 hours unless polled). AIS, however, is limited by range to line of VHF radio sight (about 50 km from a fishing vessel) so is of less use for shore-based surveillance of vessels in the open sea. Where satellite reception of AIS data is available, this restriction disappears. In addition, in some busy maritime waters such as the North Sea, there are AIS receivers placed on fixed objects such as oil installations, which extends coverage.

It should be noted that AIS was not specifically designed for fisheries control and cannot be considered as a secure system for fisheries control. There are no EU fisheries rules on obstruction or interference with data or technical failure in the way that exist for VMS.

In the European Union, fishing vessels are required under the control regulation ([124]) to operate an automatic identification system (AIS) for vessels of 15 m overall length. Data from the AIS should be exchanged with other Member States in the same way as for VMS.

- **Vessel detection system**

A vessel detection scheme (VDS) uses satellite images to identify vessels. The benefit compared with VMS and AIS is that it requires no transmission from the vessel so it cannot be tampered with. There are, however, significant technical and financial restraints on VDS and the European Union will not introduce the system for fisheries control unless there is evidence of a cost-benefit compared with other means of surveillance ([125]).

Part C. Data and information sources

- VMS data.
- Logbook data.
- Coordinates of Member State and third country waters, areas where specific rules apply, fishing restricted areas and waters covered by an RFMO.
- Contact points of FMCs in the Member States.

([121]) Article 22(2) of Commission Implementing Regulation (EU) No 404/2011.

([122]) Article 50(3) of Council Regulation (EC) No 1224/2009.

([123]) Article 4(14) of Council Regulation (EC) No 1224/2009.

([124]) Article 10 of Council Regulation (EC) No 1224/2009.

([125]) Article 11 of Council Regulation (EC) No 1224/2009.

— Public websites of the competent authorities of each Member State, giving instructions for the transmission of manual positions in case of a VMS malfunction.
— Database of fishing vessel identities and dimensions. This may be from a published almanac or by access to the Union fleet register on the Internet ([126]).
— Copy of communication procedures between FMCs of Member States.

Part D. Methodology

(a) Use of VMS data for landing inspections

- **Inspection planning**

Knowledge of the position of fishing vessels from VMS data is a key tool in planning landing inspections. Inspectors may monitor the activity of fishing vessels at sea to see when and where they may return to port to land the catch. Inspectors can then target inspection resources in ports and at times to be most effective, taking into account the risk profile of the fishery.

- **Verification of prior notification**

For those vessels required to make a prior notification of arrival in port (see Chapter 2.2.4), VMS data may be used to verify the existence and/or accuracy of the notification.

- **Assessment of compliance with access rules**

The historical VMS data can be analysed to assess compliance with the permitted access of the vessel to fishing areas. This may be at a number of different levels. For example:
— Access to coastal 12 mile zones, based on historical rights ([127]) or restricted for beam trawlers in excess of a certain engine power ([128]);
— Access to fishing restricted areas;
— Access given by fishing authorisation ([129]);
— Real-time closures ([130]).

- **Cross-check with logbook (manual and ERS) data**

The historical data can be used to cross-check with the logbook entries. For example, if the logbook records fish caught in a certain area then a VMS position would be expected from that area. Words of warning — (a) take account of the fact that VMS may only be transmitted every 2 hours and if it were possible to carry out a suspect fishing operation in that 2-hour window and (b) VMS only records geographic position, it does not record that fishing was taking place. However the VMS data may give indications of fishing activity depending on the track and speed of the vessel that are consistent with fishing operations for that type of fishing vessel and gear.

(b) How to verify the responsibilities of the master concerning the correct use of the VMS system

- **Operational at all times**

Fishing vessels may not leave port without an operational VMS device installed on board ([131]); this includes any transit voyages made when no fishing activity is carried out. The only exception is following a technical failure of the VMS device where the flag state FMC may authorise the vessel to leave port with a non-functioning device so the vessel can go to another port where it can be repaired or replaced ([132]). The VMS device can only be removed from the fishing vessel with the approval of the competent authorities of the flag state.

- **Non-receipt of data** ([133])

If the flag state FMC of a fishing vessel has not received VMS transmissions for 12 hours the FMC should immediately inform the master or representative of the vessel (unless

([126]) Commission Regulation (EC) No 26/2004 and http://ec.europa.eu/fisheries/fleet/index.cfm

([127]) Article 5(2) of Regulation (EU) No 1380/2013.

([128]) Articles 30 and 34 of Council Regulation (EC) No 850/98.

([129]) Article 7 of Council Regulation (EC) No 1224/2009.

([130]) Commission Regulation (EU) No 724/2010.

([131]) Articles 18 and 20(1) of Commission Implementing Regulation (EU) No 404/2011.

([132]) Article 25(3) of Commission Implementing Regulation (EU) No 404/2011.

([133]) Article 26 of Commission Implementing Regulation (EU) No 404/2011.

the vessel has notified it is in port). If this happens more than three times in a year, the flag state authorities should check the VMS equipment on the vessel.

If the vessel was in the waters of another coastal Member State when the last VMS transmission was made before the break in transmission, the flag state FMC should immediately inform the coastal FMC of the non-receipt of data. Similarly, if the competent authorities of a coastal Member State observe an EU fishing vessel in its waters for which they have not received VMS data (if the vessel is subject to the VMS) they should notify the master of the vessel and the FMC of the flag Member State.

- **Tamper prevention**

The master of the fishing vessel has to ensure that ([134]):

— The VMS data is not altered in any way.

— The antenna(s) of the VMS device is not obstructed (for example covered with a bucket), disconnected or blocked in any way as this would prevent the transmission of data.

— The power supply for the VMS device is not interrupted in any way. Most Member States require the VMS device to have a back-up power supply provided by batteries in case there is a power failure on the vessel.

— The VMS device is not removed from the fishing vessel without approval. This would prevent, for example, the VMS being placed on another vessel legally fishing or left in port whilst the fishing vessel carries out unobserved and possibly illegal activity.

— The VMS device is not destroyed, damaged, rendered inoperative or interfered with unless the flag state authorities have authorised its repair or replacement.

Most Member States require the VMS device to be sealed so the master has no access to the equipment. Some Member States require an internal alarm to be fitted which sends a signal to the FMC if the unit is removed or opened.

- **When the VMS device can be switched off** ([135])

The VMS device may only be switched off in port if the fishing vessel flag state FMC has been notified in advance and when the VMS device is switched on again, the fishing vessel is in the same position as where it was when the VMS device was switched off. The notification to the flag state FMC may be made by an automatic VMS message or alarm.

- **Technical failure of the VMS device**

As soon as the master of a fishing vessel is aware of a technical malfunction of the VMS device whilst the vessel is at sea, he should communicate the geographical position of the fishing vessel to his flag state FMC every 4 hours. The master may be aware of the malfunction of the device from his own observations or he may have been informed by his flag state FMC that VMS data was not being received.

These manually sent geographical positions should be recorded in the FMC database so that they are available to the inspection services in the same way as automatically transmitted VMS data and they should be passed on immediately to the coastal FMC if the vessel is in the waters of another Member State. The manually sent positions should be distinguishable from the automatically sent data. This enables the inspector to be aware they were sent from a malfunctioning device and which may need further investigation.

Following a technical malfunction of a VMS device, the fishing vessel may not leave port until the device has been repaired or replaced and is functioning to the satisfaction of the competent authorities of the flag state. However, the authorities may permit the vessel to go to another port, if it is necessary for the repair or replacement of the VMS equipment.

([134]) Articles 20(2) and 20(3) of Commission Implementing Regulation (EU) No 404/2011.

([135]) Article 18(2) of Commission Implementing Regulation (EU) No 404/2011.

(c) How to verify the responsibility and action taken by the master in case of VMS failure

The VMS is functioning correctly if the data arriving at the FMC corresponds with the observed positions of the fishing vessel. If this is the case, then no further action needs to be taken although it is useful to note any reference or serial numbers on the VMS processing device, the manufacturer of the processor and antenna, and if there are any lights on the processor indicating its operating status.

If there is no data arriving at the FMC, there could either be a malfunction of the VMS equipment on board the vessel or there is a break in the communication path, either through the satellite links, or between FMCs if the fishing vessel is operating in the waters of another coastal state. It may be useful to poll the VMS device of the fishing vessel to check if it is functioning at that time.

If there is data arriving at the FMC, but it does not correspond with the observed positions of the vessel (within an acceptable error), there could be a technical malfunction either with the equipment or communication path, or, more seriously, the data may have been altered, either inadvertently or illegally.

Normally the inspection team would be aware of the correct functioning of the VMS before conducting an inspection. If there was a lack of data transmission or there was erroneous data, the inspection team may check with the flag state FMC for an explanation.

During the inspection of the vessel, the inspectors should examine the VMS equipment on board, noting any operating lights or readings on the VMS processor, noting the serial number and, if safe to do so, examine the external antenna and wiring for signs of damage or obstruction. It may be useful to take photographs for evidence in case of an infringement.

Once he is aware of any malfunction, the master should have made 4-hourly manual position reports. The malfunction could be a technical failure of the VMS equipment on board the vessel or it could be a transmission failure between the vessel and the flag state FMC. The master is not responsible for any breaks in transmission of data after it has been received by the flag state FMC; for example, if there is a break in the re-transmission of data to the FMC of another Member State when the vessel is operating in the waters of that Member State.

It is important to check if any malfunction occurred during the current trip before the landing. If it occurred during a previous trip, the vessel should not have left port until the VMS equipment has been repaired or replaced.

Normally, the inspection team would be aware of a malfunction of the VMS in advance of an inspection from the fact that there was no data available, or the data received indicated it had been transmitted manually as required in case of a malfunction. The master should be aware of a malfunction, either by observation of the equipment on board the vessel or because he had been informed of a fault by his flag state FMC. If the master is not aware of a malfunction, possibly because of communication problems, he should be informed immediately, preferably in writing, and a note taken of the fact.

In addition to his responsibilities following any failure of the VMS, the master is also legally responsible for (a) not altering any VMS data, (b) not obstructing the VMS antenna, (c) not interrupting the power supply to the VMS equipment and (d) not removing the VMS equipment from the vessel.

Once the awareness of the master of any VMS failure has been confirmed, it is necessary to verify if the master has made the 4-hourly manual position reports to his flag state FMC in accordance with the approved means of communication published on the flag state website.

These checks will require inspectors to communicate with their flag state FMC, who in turn may need to refer to the fishing vessel flag state FMC if the vessel is from another Member State. The inspectors should find out (a) when the most recent VMS data was sent automatically (i.e. when the VMS equipment was last functioning) and (b) if the 4-hourly manual position reports had been made. The logbook can be used to verify if the fishing vessel has not returned to port since the malfunction.

The master should be aware that the vessel should not leave port until any defective VMS equipment has been repaired or replaced.

Chapter 2.2.3 — The logbook (paper and ERS)

Part A. Introduction

In the EU the fishing logbook, in either paper or ERS form, is a key tool for the management of fisheries. The fisher records the catch, where and how it was taken and with what gear, as well as certain data concerning the fishing trip, the fishing vessel and the master. This information is submitted to the authorities where it is principally used to monitor catches and fishing effort. The inspector will verify the information recorded in the logbook with observations on the fishing vessel and through VMS and other position indicators.

Generally, all EU fishing vessels, fishing in EU waters, of 12 m overall length or more are required to keep an on-board ERS ([136]) and vessels between 10 m overall length and less than 12 m overall length are required to keep a paper logbook ([137]). In addition, vessels fishing in the Baltic Sea between 8 m overall length and less than 12 m overall length need to complete a paper logbook ([138]). Member States may exempt their fishing vessels of less than 15 m overall length, if the vessels fish exclusively within the territorial sea of that Member State or never spend more than 24 hours at sea ([139]).

This chapter will guide the trainee to complete a number of elements of the minimum information required for the completion of points 33, 34 and 45 of the minimum information required for the completion of inspection reports following a landing inspection ([140]).

Part B. Concepts and definitions

(a) Entries to be made in the logbook

The following entries must be made in the logbook in both the paper and ERS versions ([141]). All quantities must be expressed in kilograms live-weight equivalent or, where appropriate, the number of individuals:

- The external identification number and name of the fishing vessel.
- The FAO alpha-3 code of each species and the relevant geographical area in which the catches were taken.
- The date of catches.
- The date of departure from and of arrival to port, and the duration of the fishing trip.
- The type of gear, mesh size and dimension.
- Legal size catches (LSC) are the estimated quantities of each species in live weight following application of a conversion factor for processed weight if appropriate ([142]). All species over 50 kg that are retained on board must be recorded. The permitted margin of tolerance of the quantities for each species recorded in the logbook is 10 %, expressed as a percentage of the figures recorded in the logbook. For landings of unsorted catches the margin of tolerance may be calculated on the basis of one or more representative samples ([143]).
- landing obligation
  Masters must record species subject to the landing obligation, below the applicable MCRS over 50 kg live weight ([144]) as a separate entry; (BMS)
- discards ([145])
  Masters must record and report as a separate entry all estimated discards above 50 kg live weight equivalent in volume for any species to which the landing obligation does not apply (DIS) (this is covered in Section 5.2).

([136]) Article 15 of Council Regulation (EC) No 1224/2009.

([137]) Article 14 of Council Regulation (EC) No 1224/2009.

([138]) Article 12 of Regulation (EU) No 2016/1139.

([139]) Article 15(4) of Council Regulation (EC) No 1224/2009.

([140]) Article 115 and points 33, 34 and 45 of Module 3 of Annex XXVII of Commission Implementing Regulation (EU) No 404/2011.

([141]) Article 14 of Council Regulation (EC) No 1224/2009.

([142]) Articles 48 to 50 and Annexes I, XIII, XIV and XV of Commission Implementing Regulation (EU) No 404/2011.

([143]) Article 51(2) of Commission Implementing Regulation (EU) No 404/2011.

([144]) Article 14(2)(f) of Council Regulation (EC) No 1224/2009.

([145]) Article 14 (4) of Council Regulation (EC) No 1224/2009.

Masters must record all discards above all estimated discards (above 1 kg live weight equivalent) for any species to which the landing obligation does apply , but which can be discarded under

- the "de minimis" exemptions (DIM);
- high survivability species (DIS);
- all protected species or fish damaged by predators (DIS).

— The number of fishing operations.
— Each entry and exit from port and the catch retained on board by species.
— Each entry and exit from areas where specific rules apply, such as for a stock subject to a fishing effort regime, and the catch retained on board by species.
— For static gear the date and time of setting and re-setting the gear and the time of completion of fishing operations must be recorded.

Note that third country fishing vessels operating in EU waters must keep a logbook in the same way as an EU vessel ([146]).

If different logbooks are required for EU vessels fishing in the waters of an RFMO or in the waters of a third country they should use that logbook ([147]). Otherwise they should use the logbook, paper or ERS, required in EU waters.

(b) The paper logbook

- **Format**

Paper logbooks are printed by the flag Member State in a standard format ([148]). The logbook page can be numbered with a code for the flag Member State and a unique serial number. Each page has at least one carbonated copy; the original page is for submission to the flag Member State and the copy is for submission to the landing Member State, if this is not the flag Member State. There may be additional carbonated copies, for example, for the producer organisation and for the master to keep.

The paper landing declaration is printed on the lower part of the standard paper logbook.

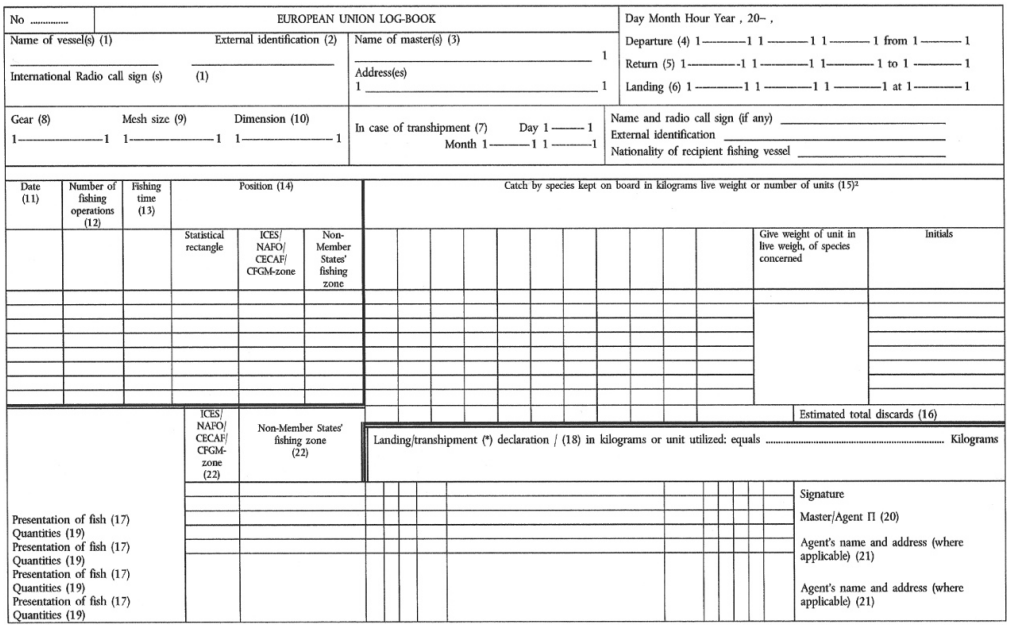

No .....
EUROPEAN UNION LOG-BOOK
Day Month Hour Year , 20– ,
Name of vessel(s) (1)
External identification (2)
International Radio call sign (s) (1)
Name of master(s) (3)
Address(es)
Departure (4) from
Return (5) to
Landing (6) at
Gear (8)
Mesh size (9)
Dimension (10)
In case of transhipment (7) Day Month
Name and radio call sign (if any)
External identification
Nationality of recipient fishing vessel
Date (11)
Number of fishing operations (12)
Fishing time (13)
Position (14)
Statistical rectangle
ICES/ NAFO/ CECAF/ CFGM-zone
Non-Member States' fishing zone
Catch by species kept on board in kilograms live weight or number of units (15)²
Give weight of unit in live weigh, of species concerned
Initials
Estimated total discards (16)
ICES/ NAFO/ CECAF/ CFGM-zone (22)
Non-Member States' fishing zone (22)
Landing/transhipment (*) declaration / (18) in kilograms or unit utilized: equals ..... Kilograms
Presentation of fish (17)
Quantities (19)
Signature
Master/Agent Π (20)
Agent's name and address (where applicable) (21)
(*) Delete whichever does not apply. Comments:_

Figure 4 — *Standard paper logbook* ([149])

Note there is no restriction under EU law in using a logbook printed by another Member State, nor is there a requirement to use the logbook pages in numerical sequence.

([146]) Article 14(8) of Council Regulation (EC) No 1224/2009.

([147]) Article 30(3) of Commission Implementing Regulation (EU) No 404/2011.

([148]) Article 30 and Annexes VI and VII of Commission Implementing Regulation (EU) No 404/2011.

([149]) Annex VI of Commission Implementing Regulation (EU) No 404/2011.

There is a different format for EU vessels of less than 12 m overall length fishing on daily trips in the Mediterranean.

No	Internal fleet register No			Fishing logbook No		Year:	Trip No:		
(1)(7) Name of vessel(s)	(1)(7) Radio call sign	(2)(7) External identification	(3) Name of master		(4)(5)(6)(7)(11) Day	(4)(5)(6)(7)(11) Month	(4)(5)(6)(7)(11) Hour	(4)(5)(6) Port	
				(4) Departure					
Pair trawler			Address	(5)(6)(7) Arrival					
(7) Transhipment				(5)(6)(7) Landing					

(15) Catches by species retained on board and landed/transhipped in kg live-weight equivalent															
							(17) Species in kilograms								
(8) Gear	(10) Dimensions	Number	(9) Mesh size	(12) No of fishing operations	(13) Trawling/ soaking time	(14)(22) Fishing area									
					(16) Discards										
					Presentation of fish										

Observations	Signature
	I, the undersigned, hereby certify that all records are complete, true and accurate.
	Date: (20)(21) Signature

Figure 5 — *Mediterranean logbook for vessels less than 12 m overall length* ([150])

- **Instructions for completion of the logbook**

The regulations contain detailed instructions on how to complete and submit the paper logbook ([151]).

- **Completion of the paper logbook**

The paper logbook has to be completed at the following times, even when there are no catches ([152]):

— daily not later than 24:00;
— before entering port;
— at the time of any inspection at sea;
— at the time of specific events laid down in legislation, such as entry into a different fishing zone covered by a multi-annual plan.

A new line should be filled in for:

— each day at sea;
— when fishing in a different zone on the same day;
— when entering fishing effort data.

A new page should be filled in when:

— using different fishing gear;
— fishing after transhipment or intermediate landing;
— after a visit to a port without landing;
— if the number of columns is insufficient for the number of species taken;
— on departure from a port when no landing has taken place.

If fish remains on board after landing the quantity remaining of each species should be shown on a new logbook page.

- **Submission of the paper logbook**

The original of the paper logbook must be submitted within 48 hours of the completion of landing to the competent authorities of the flag Member State ([153]). If no catches have been landed the paper logbook must be submitted within 48 hours of arrival in port. In addition if the landing was made in another Member State the first copy of the paper

([150]) Annex VII of Commission Implementing Regulation (EU) No 404/2011.

([151]) Article 31 and Annex X of Commission Implementing Regulation (EU) No 404/2011.

([152]) Article 33 of Commission Implementing Regulation (EU) No 404/2011.

([153]) Article 32 of Commission Implementing Regulation (EU) No 404/2011.

logbook must be submitted to the competent authorities of the port Member State within 48 hours of completion of landing.

(c) The on-board ERS

The on-board ERS is one part of the electronic reporting system (ERS) that brings together all electronic reports of fishing activity, landings, transhipments and fish sales. The same data elements must be entered into the on-board ERS as into a paper logbook, but there is no standard layout and Member States are free to implement systems appropriate to the needs of their authorities and industries ([154]). The principle difference between an on-board ERS and a paper logbook is that the data is transmitted to a server hub in the flag Member State and is made immediately available to inspectors, who will then have the ability to view logbook data before they carry out an inspection.

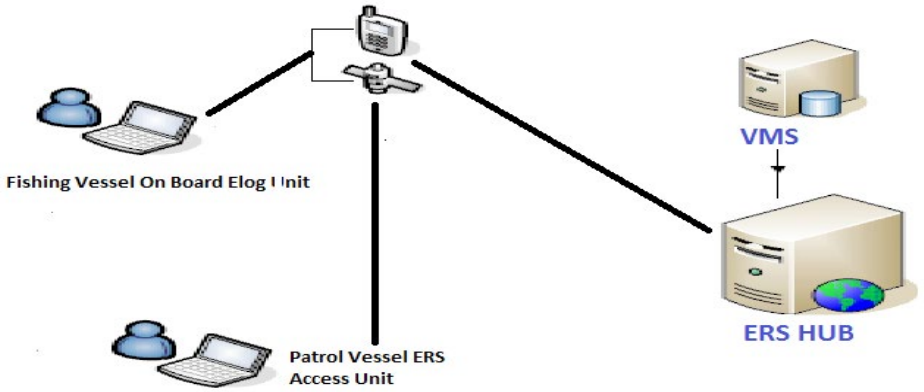


Figure 6 — *Schematic of a typical electronic logbook system*

The ERS data is submitted as a series of 'Fishing Logbook Declarations' structured in such a manner as to record all the aspects of a voyage in a logical order. A series of 'sub declarations' define much of the data to be included in the main declaration. The format of the declaration is determined by the Member State.

Each day, before 24:00, the master should transmit the electronic fishing logbook information to the flag Member State, even if there is no catch to be reported for that day. In addition the electronic fishing logbook information must be transmitted by the master on the following occasions:

- when requested by the fishing authorities,
- at the time of an inspection at sea,
- immediately after the last fishing operation,
- before entering port,
- at any time defined in Union legislation or by the flag Member State.

The ERS data is always sent from the fishing vessel to the flag Member State. The data will then be immediately sent on to other Member States if the vessel is present in the waters of that Member State. The data is sent on to RFMOs or third countries if the vessel is present in those waters and if electronic logbooks are required.

Part C. Data and information sources

- The fishing logbook
- ERS
- VMS.

([154]) Article 37 of Commission Implementing Regulation (EU) No 404/2011.

Part D. Methodology

(a) Entries to be made in the logbook

The master must bring his logbook, paper or ERS, up to date before entering port. For the ERS, the data has to be available on board. The inspector should then:

- Compare the assessment of the total catch on board, converted to live weight with the quantities entered in the logbook for all species over 50 kg live weight
- Check the quantities of species subject to the landing obligation and below the applicable minimum conservation reference size ([155])
- Check discards for any species, paying particular attention to species covered by the landing obligation discard plans and exemptions. ([156]) Any difference beyond the tolerance allowed, based on 10 % of the figure entered in the logbook is an infringement. If available, also compare the fishing logbook with the production logbook.
- Compare the recorded fishing activity, including any effort notifications, with the fishing authorisations and VMS records for the vessel.
- Compare the recorded fishing gear with the observed gear.
- Compare the recorded data for the identity of vessel and the master with the vessel's certificate of registry and the master's identification document.

Failure to maintain an accurate fishing logbook is an infringement.

(b) The paper logbook

Follow the checks listed above in Part D, subpart (a).

(c) The electronic logbook

- **Pre-inspection of electronic data**

Inspectors should have access to the ERS for current voyage and historical logbook data for national vessels and current voyage logbook data for other non-national vessels operating in their national waters. (Historical data for non-national vessels must be made available on request to the flag state of the vessel.)

The following processes should be considered before the inspection starts:

- Access the national ERS system; select the declarations for the vessel to be inspected, including the most recently updated ERS data. Historical ERS information for national vessels should also be visible. Historical information for vessels of another Member State operating in national waters is available to national inspectors subject to certain rules ([157]).
- Check the logbook data has been transmitted before entering port ([158]).
- Confirm any required prior notification of arrival in port.
- Check all ERS data including departure declaration, prior notification of return and any effort declarations. Also look for corrections to declarations.
- Access the VMS plot for the fishing vessel to be inspected, select a time period equivalent to the voyage dates declared in the ERS data.
- Cross check positional information between ERS and VMS, check for inconsistencies between dates/times/positions. (Note; some ERS systems also provide a tracking facility using an inbuilt GPS receiver).
- Check all ERS data has been entered correctly; most ERS systems incorporate some form of basic quality assurance and validation to reduce data entry errors, for example, correct date/time groups, gear and species codes, but incorrect data entry, either intentional or in error cannot be entirely prevented. Take a note

([155]) Article 14(2)(f) of Council Regulation (EC) No 1224/2009.

([156]) Article 14 (4) of Council Regulation (EC) No 1224/2009.

([157]) Article 44 of Commission Implementing Regulation (EU) No 404/2011.

([158]) Article 47(1)(c) of Commission Implementing Regulation (EU) No 404/2011.

of any data errors or inconsistencies for clarification with the master during the inspection.

- Examine the recorded catches; has the master recorded high catches for a particular species in a short period of time in a particular area? Compare with VMS track. Check against quota entitlement; consider whether the master has attempted to misreport area of capture.
- Consider whether the master has recorded a high catch rate for a particular species in the time between the previous transmission and the updated ERS, suggesting the possibility of under-recording catches earlier in the voyage. Take note of any inconsistencies in catch data for clarification with the master during the inspection.
- Check declared mesh ranges used during the current voyage, has more than one mesh range been declared?
- Consider the species declared, are any subject to a multi-annual plan and therefore require separate stowage?
- Check ERS messages for previous voyages, particularly if attempts to under-record or misreport are suspected (note this facility may not be available for non-flag vessels). Check also that any landing declaration from the previous voyage has been submitted within the required timeframe of 24 hours after completion of the landing ([159]). Inspectors should remain aware of the other information available on the Hub, including sales notes and transport declarations, should this be useful.
- If the vessel is fishing with gill nets, examine the records for gill nets, ensure the reporting requirements specific to gill nets are correctly recorded ([160]). If appropriate, consider the soak time requirements and check these have been correctly observed. Cross checking with VMS can be useful tool in this respect.
- Print out copies of the ERS and VMS tracks, for use during the inspection. Masters are required to retain copies of all ERS transmissions on board for the current voyage ([161]) but these may not be available to inspectors in a printed format on board the fishing vessel.

The full range of declarations ([162]) should be considered when inspecting electronic logbook data.

- **Inspection of electronic data on board the fishing vessel**

The conduct of the inspection of ERS data once on board the fishing vessel will largely depend on the amount of information obtained from ERS and VMS in the pre-inspection phase and the priorities identified for the inspection. Items relevant to ERS should be checked as follows:

- If the vessel is required to use ERS, inspectors should verify if the data was transmitted and, if needed, contact the FMC.
- Confirm that the master has submitted ERS data for the current voyage. Should the master claim to be submitting ERS information but this information is not visible on the national ERS hub, inspectors should examine the 'return' messages. If return messages have been received, it is probable there is a system fault elsewhere. The inspection should continue using the information held on the fishing vessel data unit.
- If there is no return message, the master should be aware that the ERS data has not been received and therefore the master should be submitting manually.
- If there is no landing declaration (LD) for the previous fishing trip available on ERS and more than 24 hours has passed since completion of the landing, inspectors should ascertain if the master or his nominee normally submits the landing declaration and establish why the LD is not available on the hub.

([159]) Article 24 of Council Regulation (EC) No 1224/2009.

([160]) Annex X of Commission Implementing Regulation (EU) No 404/2011.

([161]) Article 47 of Commission Implementing Regulation (EU) No 404/2011.

([162]) Annex X of Commission Implementing Regulation (EU) No 404/2011.

- If the vessel left from a port in the fishing effort regime zone, verify if there is an electronic logbook entry.
- Compare the weighing of the total catch on board, converted to live weight with the quantities entered in the logbook for all species over 50 kg live weight
- Has the vessel targeted species which are subject to the landing obligation? ([163])
- Has the master recorded separately ([164]) in the logbook quantities of species subject to the landing obligation which are below the applicable minimum conservation reference size? ([165])
- Is there a discard plan in force for the fishing area, the targeted species and the gear used?
- Has the master recorded details of quantities of species over 50 kg per species discarded not subject to the landing obligation? ([166])
- Where applicable (see discard plan) has the master recorded details of sampling of the catches before release?

While the obligations required of the master by the regulations are clear, when investigating apparent breaches of the regulations, inspectors should consider the relative complexities of the ERS system and the number of potential breakpoints in the system that are out of the control of the master.

- **Provisions in the event of an equipment failure**

In the event of equipment failure on board the fishing vessel, which prevents the master submitting the required reports electronically, the master is obliged to submit the reports by any other means. Inspectors should consider the following when encountered with this situation;

- Are the reports appearing on the ERS Hub? If so, this provides confirmation of the submission of data manually and the entry of the data by the authorities of the Member State as required by the regulations.
- If the reports are not appearing on the ERS at the FMC, inspectors must establish as soon as possible if the master is submitting manual reports as required.
- If the master is not submitting manual reports, inspectors must establish the reasons why reports are not being submitted and when the equipment failure occurred.
- Inspectors must establish if the equipment was operational when the vessel left port at the commencement of the fishing trip. It is prohibited to leave port without a functioning system unless approved to do so by the authorities of the Member State. Member States are required to place on a website a range of operational information regarding the current condition of their ERS system and inspectors are advised to check such websites for any information regarding vessels to be inspected at sea.

([163]) Article 15 (1) of Regulation (EU) No 1380/2013.

([164]) Article 14 (2)(f) of Regulation (EC) No 1224/2009.

([165]) Article 4(17) Regulation (EU) No 1380/2013.

([166]) Article 14(4) of Regulation (EC) No 1224/2009.

Chapter 2.2.4 — Prior notifications of return to port

Part A. Introduction

The regulations require that masters of certain vessels prosecuting certain fisheries provide a prior notification of arrival in port when proceeding from a fishing trip. The prior notification allows inspectors to plan their inspection activity in the most effective way depending on the risk profile of the fishery.

It is important to note the notification is of time of the vessel first arrives in port and not the time the vessel start to land its catch. In this way the inspector should be able to be present to observe the physical arrival of the vessel in port and avoids the possibility of the vessel landing an unobserved catch.

This chapter will guide the trainee to complete a number of elements of the minimum information required for the completion of points 8, 3, and 36 of the minimum information required for the completion of inspection reports ([167]).

Part B. Concepts and definitions

(a) Circumstances in which a prior notification is required

- **General notification requirements**

Master of EU fishing vessels of 12 m overall length or more, which are fishing stocks subject to a multiannual plan and are under the obligation to record logbook data electronically, are required to give a notification of the time of arrival at port to the competent authorities of the flag Member State ([168]).

If the port of arrival is in another Member State then the authorities of the flag must immediately forward the notification to the authorities of that coastal Member State.

Certain categories of vessels may be exempted from the requirement to make a prior notice of arrival in port ([169]).

- **Specific notification requirements**

Prior notification of arrival in port is also required in the following specific activities:

— landings of more than 10 tonnes of certain pelagic species ([170]),
— landings by third country fishing vessels from all waters ([171]),
— landings by third country fishing vessels from the regulatory areas of NAFO ([172]) and NEAFC ([173]),
— transhipments ([174]).

(b) Designated ports

Landings or transhipments may be restricted to certain designated ports or places close to the shore in the following circumstances:

— Landings from fisheries subject to a multi-annual plan. The multi-annual plan may specify that landings above a certain minimum quantity in live weight must be made in a designated port ([175]).
— Landings of more than 10 tonnes of certain pelagic species ([176]).
— Landings by third country fishing vessels from all waters ([177]).
— Landings by third country fishing vessels from the regulatory areas of NAFO ([178]) and NEAFC ([179]).
— All transhipments ([180]).

([167]) Article 115 and points 8, 35 and 36 of Module 3 of Annex XXVII of Commission Implementing Regulation (EU) No 404/2011.

([168]) Article 17(1) of Council Regulation (EC) No 1224/2009.

([169]) Article 17(6) of Council Regulation (EC) No 1224/2009.

([170]) Article 80 of Commission Implementing Regulation (EU) No 404/2011.

([171]) Article 6 of Council Regulation (EC) No 1005/2008 and Article 2 and Annexes IIA and IIB of Commission Regulation (EC) No 1010/2009.

([172]) Article 63b of Council Regulation (EC) No 1386/2007.

([173]) Article 24 of Regulation (EU) 1236/2010.

([174]) Articles 20 and 42 of Council Regulation (EC) No 1224/2009.

([175]) Article 43 of Council Regulation (EC) No 1224/2009.

([176]) Article 79(2) of Commission Implementing Regulation (EU) No 404/2011.

([177]) Article 5 of Council Regulation (EC) No 1005/2008.

([178]) Article 63 of Council Regulation (EC) No 1386/2007.

([179]) Article 23 of Regulation (EU) 1236/2010.

([180]) Article 20 of Council Regulation (EC) No 1224/2009.

Member States shall designate the designated ports in their territory and also establish ([181]):

— landing or transhipment times and places,
— inspection and surveillance procedures.

Member States shall publish a list of designated ports and operating hours on the publicly accessible part of their websites ([182]).

(c) Required data

- **General notifications**

Masters of EU fishing vessels of 12 m overall length or more, which are fishing stocks subject to a multiannual plan and are under the obligation to record logbook data electronically, are required to notify the following data prior to arrival in port ([183]):

— The external identification number and the name of the fishing vessel;
— The name of the port of destination and the purposes of the call, such as landing, transhipment or access to services;
— The dates of the fishing trip and the relevant geographical areas in which the catches were taken;
— The estimated date and time of arrival at port;
— The quantities of each species recorded in the fishing logbook;
— The quantities of each species to be landed or transhipped.

The notification of prior arrival may be made in the same electronic transmission as the electronic fishing logbook data ([184]).

The competent authorities of the coastal Member State may deny access to port to fishing vessels that do not provide the required data, except in cases of force majeure ([185]).

- **Specific notifications**

When landing more than 10 tonnes of certain pelagic species the master must notify ([186]):

— name of the port;
— name and external registration number of the vessel;
— estimated time of arrival;
— quantities in kilograms live weight of the required pelagic species;
— geographical area where the catch was taken catch.

Masters of third country fishing vessels are required to notify the following information before arrival in port ([187]):

— vessel identification;
— name of the designated port of destination and the purposes of the call, landing, transhipment or access to services;
— fishing authorisation or, where appropriate, authorisation to support fishing operations or to tranship fishery products;
— dates of the fishing trip;
— estimated date and time of arrival at port;
— the quantities of each species retained on board or, where appropriate, a negative report;
— the zone or zones where the catch was made or where transhipment took place, whether in Union waters, in zones under the jurisdiction or sovereignty of a third country or on the high seas;
— the quantities for each species to be landed or transhipped.

Masters of third country fishing vessels shall be exempted from notifying this information where a catch certificate (see Chapter 2.2.6 below) has been validated in accordance with the regulations. Furthermore the Commission may exempt certain categories of third country vessels ([188]).

([181]) Articles 43(4) and 43(5) of Council Regulation (EC) No 1224/2009.

([182]) Article 115 of Council Regulation (EC) No 1224/2009.

([183]) Article 17(1) of Council Regulation (EC) No 1224/2009.

([184]) Article 17(4) of Council Regulation (EC) No 1224/2009.

([185]) Article 19 of Council Regulation (EC) No 1224/2009.

([186]) Article 80 of Commission Implementing Regulation (EU) No 404/2011.

([187]) Article 6 of Council Regulation (EC) No 1005/2008 and Article 2 and Annexes IIA and IIB of Commission Regulation (EC) No 1010/2009.

([188]) Article 6 of Council Regulation (EC) No 1005/2008.

Masters of contracting third country fishing vessels landing catches from the regulatory areas of NAFO ([189]) and NEAFC ([190]) are required to provide information under a port state control scheme (PSC) as follows:

- The arrival of the vessel in order to land or tranship is notified to the coastal Member State using form PSC1 in the case for vessels that have caught its own catch and form PSC2 in the case the vessel has received the catch by transhipment at sea. The formats of the PSC forms are annexed to the regulations for the control and enforcement schemes of NAFO ([191]) and NEAFC ([192]).
- On receipt the coastal Member State sends a copy of the PSC form to the authorities of the flag state of the catching vessel(s).
- The authorities of the flag state of the catching vessel(s) return the PSC forms to the coastal Member State indicating the legality of the catch as follows:
  - the catching vessel has sufficient quota;
  - the quantities on board have been correctly reported;
  - the catching vessel is authorised to catch the species on board:
  - the presence of the catching vessel in the area of capture has been verified by VMS.
- The landing or transhipment of the vessel may only be authorised after the flag state has positively confirmed the legality of the catch on the PSC form.

([189]) Article 63b of Council Regulation (EC) No 1386/2007.

([190]) Article 23 of Regulation (EU) 1236/2010 and Article 12 of Commission Implementing Regulation (EU) No 433/2012.

([191]) Annexes XV(A) and XV(B) of Council Regulation (EC) No 1386/2007.

([192]) Annex VIII of Commission Implementing Regulation (EU) No 433/2012.

([193]) Article 17 of Council Regulation (EC) No 1224/2009.

([194]) Article 6 of Council Regulation (EC) No 1005/2008.

([195]) Article 9 of Council Regulation (EC) No 2115/2005.

([196]) Article 81 of Commission Implementing Regulation (EU) No 404/2011.

([197]) Article 5 of Council Regulation (EC) No 1005/2008.

([198]) Article 63c of Council Regulation (EC) No 1386/2007.

([199]) Article 25 of Regulation (EU) 1236/2010.

([200]) Article 20 of Council Regulation (EC) No 1224/2009.

(d) **Deadlines**

Generally the prior notification of arrival in port must be made at least 4 hours in advance for EU vessels ([193]) and at least 3 working days in advance for third country vessels ([194]).

Prior notification of arrival in port to land Greenland halibut taken from the NAFO Regulatory Area must be made at least 72 hours in advance ([195]).

A shorter period of prior notification may be permitted by the coastal Member State in certain circumstances.

(e) **Authorisation to land or tranship**

Discharges of the catch may not start until approval is given from the authorities in the following fisheries:

- landings of more than 10 tonnes of certain pelagic species ([196]).
- landings by third country fishing vessels from all waters following certification of legality of the catch from the flag state ([197]).
- landings by third country fishing vessels from the regulatory areas of NAFO ([198]) and NEAFC ([199]) following confirmation of the legality of the catch by the flag state using the port state control forms described in subpart (c) above.
- all transhipments ([200]).

Part C. Data and information sources

- information from the coastal Member State FMC
- ERS
- VMS.

Part D. Methodology

(a) Circumstances in which a prior notification is required

The following checklist may be used to determine if a prior notification is required:

- is there an exemption for the category of vessel?
- is the vessel from the EU or a third country?

If from the EU:

- is the vessel over 12 m overall length?
- has the vessel been fishing stocks subject to a multi-annual plan?
- is the vessel under the obligation to record logbook data electronically?
- does the vessel have a fishing authorisation for those species?
- is the vessel going to land more than 10 tonnes of certain pelagic species?

If from a third country:

- is the vessel going to land fish?
- has a catch certificate been produced showing the legality of the catches?
- has the vessel operated in the regulatory areas of NAFO and/or NEAFC?

(b) Designated ports

The inspector may confirm the designated ports and the associated control and surveillance procedures from the publicly accessible part of the coastal Member State website.

(c) Required data

The inspector may verify the data on a prior notification of arrival in port with the requirements of that type of notification.

(d) Deadlines

The inspector may verify the timeliness of a prior notification of arrival in port with the requirements of that type of notification, taking into account any local exemptions.

(e) How to use the prior notification to plan an inspection

The inspector may plan inspection activity using the prior notification to achieve the most effective use of resources depending on the risk profile of the fishery.

It is important to note the notification is of time of the vessel first arrives in port and not the time the vessel start to land its catch. In this way the inspector may be able to be present to observe the physical arrival of the vessel in port to avoid the possibility of the vessel landing an unobserved catch.

Chapter 2.2.5 — Landing declaration (if completed during inspection)

Part A. Introduction

The landing declaration, in either paper or electronic form, is a key tool for the control and management of fisheries. A landing declaration accurately accounts for all quantities and all species that are landed and may be used to verify the fishing logbook.

It should be noted that a landing declaration is normally submitted after the vessel has landed its catch and is therefore not normally completed during a landing inspection.

The landing declaration does not form one of the elements of the minimum information required for the completion of an inspection report following a landing inspection ([201]).

Part B. Concepts and definitions

(a) Which vessels are required to make a landing declaration

Landing declarations are required from all EU fishing vessels of 10 m overall length or more unless there is a different requirement in a multi-annual plan ([202]). Vessels between 10 m overall length and less than 12 m overall length are required to submit a paper landing declaration ([203]); vessels of 12 m and over overall length are required to submit an electronic landing declaration ([204]). A flag Member State may exempt masters of its fishing vessels of less than 15 m overall length from the requirement to submit an electronic landing declaration, if the vessels fish exclusively within the territorial sea of that flag Member State or never spend more than 24 hours at sea ([205]).

The minimum length for a vessel required to complete a paper logbook whilst fishing in the Baltic Sea is reduced to 8 m overall ([206]).

There is no specific requirement for a third country fishing vessel to submit a landing declaration after landing a catch in an EU port. In this case the declared landing is the catch stated in the prior notification ([207]).

(b) Entries to be made in the landing declaration

The following entries must be made in the landing declaration in both the paper and electronic versions ([208]):

- The external identification number and the name of the fishing vessel;
- The FAO alpha-3 code of each species and the relevant geographical area in which the catches were taken;
- The quantities of each species in kilograms in product weight, broken down by type of product presentation or, where appropriate, the number of individuals;
- the port of landing.

(c) Submission of a landing declaration

The landing declaration must be submitted within 48 hours of completion of landing for a vessel required to complete a paper landing declaration ([209]) and within 24 hours of completion of landing for a vessel required to complete an electronic landing declaration ([210]).

When landing in another Member State the paper landing declaration must be submitted by the master of a fishing vessel, or his representative, to the competent authorities of the flag Member State and the Member State where the catch was landed ([211]). An electronic landing declaration must be sent to the competent authorities of the flag Member State,

([201]) Article 115 and Module 3 of Annex XXVII of Commission Regulation (EC) No 404/2011.

([202]) Article 23(1) of Council Regulation (EC) No 1224/2009.

([203]) Article 29 of Commission Implementing Regulation (EU) No 404/2011.

([204]) Article 24(1) of Council Regulation (EC) No 1224/2009.

([205]) Article 24(3) of Council Regulation (EC) No 1224/2009.

([206]) Article 12 of Regulation (EU) No 2016/1139.

([207]) Article 5 of Council Regulation (EC) No 1005/2008.

([208]) Article 23(2) of Council Regulation (EC) No 1224/2009.

([209]) Article 23(3) of Council Regulation (EC) No 1224/2009.

([210]) Article 24(1) of Council Regulation (EC) No 1224/2009.

([211]) Article 23(3) of Council Regulation (EC) No 1224/2009.

who then must immediately electronically forward the declaration data to the competent authorities of the port of the Member State where the catch was landed ([212]).

(d) The paper landing declaration

The paper landing declaration is printed on the lower part of the paper logbook. See Part B, subpart (b) of Chapter 2.2.3 of this handbook for a description of the format of the paper logbook/landing declaration and the instructions for completion and submission.

(e) The electronic landing declaration

The operation of the electronic landing declaration through the ERS is the same as the electronic logbook. See Part B, subpart (c) of Chapter 2.2.3 of this handbook for a description of the on-board ERS.

Part C. Data and information sources

ERS

Part D. Methodology

(a) Verification of the landing declaration

There is no obligation for the landing declaration to be submitted before the landing of the catch is completed. If the landing declaration is made available the following checks may be made:

- Compare the observed catch landed with the quantities entered in the landing declaration. If available, also compare the landing declaration with the production logbook. All these quantities should be recorded in terms of product weight or stowed weight after any processing. The comparison should be made for each presentation of each species as these should be separately recorded.
- Convert the quantities recorded in the landing declaration to live weight equivalent using the appropriate conversion factor ([213]) and compare with the recorded live weight of the catch in the fishing logbook.

(b) The paper landing declaration

Follow the checks listed above in Part D, subpart (a).

(c) The electronic landing declaration

Follow the checks listed above in Part D, subpart (a).

([212]) Article 24(4) of Council Regulation (EC) No 1224/2009.

([213]) Articles 48 to 50 and Annexes I, XIII, XIV and XV of Commission Implementing Regulation (EC) No 404/2011.

Chapter 2.2.6 — Other declarations

Part A. Introduction

This chapter covers declarations concerning how the catch is handled after it has been taken on board up to the time the vessel lands its catch. This information will assist the inspector to assess the quantity of fish on board and landed.

The chapter will guide the trainee to complete a number of elements of the minimum information required for the completion of points 37, 45, 50, 55, 56-59 of the minimum information required for the completion of inspection reports ([214]).

Specific declarations requested by long-term plans are covered in Section 5.1.1.

Part B. Concepts and definitions

(a) Production logbook

A production logbook is used to record the daily cumulative catch in the processed form as stowed and the method of production. For example, the weight of fish with the guts removed or as fillets. This differs to the fishing log which records the daily catch in live weight equivalent.

There is no EU format for a production log and it is not required by EU law on vessels fishing in EU waters. A production logbook may be seen on vessels which have been fishing in the regulatory area of an RFMO.

The inspector will use the production logbook to compare with the fishing logbook and the assessment of the catch on board and landed.

(b) Stowage plan

A stowage plan is a document that describes the location of the different species in the hold. They are required by EU vessels of 12 m overall length or more when fishing for demersal species subject to a multiannual plan ([215]).

In addition to a stowage plan, catches of each demersal species subject to a multiannual plan must be stowed separately and not mixed with other species ([216]).

There is no standard EU format for the stowage plan but they should be sufficiently clear for the inspector to be able to use it to find the different species that are subject to a multi-annual plan, in the hold. For example, a drawing showing a plan view of the hold and the names of the species will be sufficient. For larger holds, where the species may be different at different levels there will need to be an indication of the vertical location of the fish.

The inspector will use the stowage plan in the assessment of the catch on board and landed.

(c) Labelling

Labels are applied to fishery products to identify the vessel, species, weight, production method and the date and zone of capture. Not all labels will show all this information and some labels may show other data such as serial numbers and bar codes. Labels are more likely to be used on frozen products for reasons of traceability but may also be seen on fresh fish especially when the fish has been weighed at sea and it is to be sold by direct contract.

([214]) Article 115 and points 37, 45, 50, 55, 56-59 of Module 3 of Annex XXVII of Commission Implementing Regulation (EU) No 404/2011.

([215]) Article 44(2) of Council Regulation (EC) No 1224/2009.

([216]) Article 44(1) of Council Regulation (EC) No 1224/2009.

Labels may be used by inspectors to assist in the assessment of catch on board and landed and to reconcile with the records of dates and zones of capture in the logbook.

There is no specific legal requirement to use labels during fishing operations in EU waters although the rules require the identification and traceability of fish once it enters the market ([217]). Fish species which are subject to common marketing standards are required to be labelled with the marketing standard prior to being offered for sale ([218]). Labels are required for fisheries in the regulatory areas of some RFMOs.

(d) Catch certificate

As part of the policy to combat illegal, unreported and unregulated fishing (IUU), the EU has adopted a catch certificate scheme. Catch certificates are required for most fishery products imported into the EU from third countries, including those landed by third country vessels ([219]). The catch certificate must be validated by the flag state of the catching vessel to certify that the catches were made in accordance the legislation at national and international level. The information required in the catch certificate is listed in the regulation ([220]).

The validated catch certificate must be submitted to the competent authorities of the Member State where the fishery products are to be imported at least 3 working days in advance of the estimated time of arrival ([221]). The catch certificate may be in paper or electronic form.

Catch documents validated in conformity with a catch documentation scheme adopted by an RFMO may be accepted as a catch certificate. The list of the catch documentation schemes is published by the Commission ([222]).

Inspectors should note that there are a number of special administrative arrangements concerning the catch certification scheme that vary depending on the source of the fishery products. These arrangements are generally published on the Commission website ([223]).

(e) Transhipment declaration

A transhipment declaration is a record of fish which has been caught by one vessel and is transferred directly and without being landed, to another vessel which was not involved in the fishing activity. There are rules on the format of the transhipment declaration and for submission ([224]).

When a vessel makes a transhipment, the master of the vessel which caught the fish must hand a copy of the transhipment declaration to the master of the receiving vessel. At the same time, the master of the receiving vessel must hand over a copy of a transhipment declaration for his/her vessel to the master of the vessel which caught the fish. In this way, it is possible to reconcile the quantities of fish on board either vessel with a combination of the logbooks and transhipment documents.

Note that EU rules prohibit transhipments at sea in EU waters ([225]). Transhipments are only allowed after authorisation and in a port or a designated place close to the shore.

The inspector will use the transhipment declaration to compare with the fishing logbook and the assessment of the catch on board and landed.

Inspectors should be aware that uncontrolled transhipment is associated with a strong risk of non-compliance and the circumstances should be checked with particular care.

(f) Transport document

A transport document is needed for fishery products which have been landed in an EU port and are to be transported before sale ([226]).

([217]) Article 58 of Council Regulation (EC) No 1224/2009 and Article 67 of Commission Implementing Regulation (EU) No 404/2011.

([218]) Article 57 of Council Regulation (EC) No 1224/2009.

([219]) Article 12 of Council Regulation (EC) No 1005/2008.

([220]) Article 12(4) and Annex II of Council Regulation (EC) No 1005/2008.

([221]) Article 16(1) of Council Regulation (EC) No 1005/2008.

([222]) Article 13 of Council Regulation (EC) No 1005/2008.

([223]) http://ec.europa.eu/fisheries/cfp/illegal_fishing/info/index_en.htm

([224]) Articles 21 and 22 of Council Regulation (EC) No 1224/2009 and Articles 29–32, 34 and 36 and Annexes VI, X and XI of Commission Implementing Regulation (EU) No 404/2011.

([225]) Article 20 of Council Regulation (EC) No 1224/2009.

([226]) Article 68 of Council Regulation (EC) No 1224/2009.

The transport document must be submitted to the competent authorities of the Member State of landing within 48 hours of the loading of the transport vehicle.

If the transport document is in paper form it must accompany the transport; if it is in electronic form it does not need to accompany the transport if it is submitted in advance before the transport begins.

The following information must be entered on the transport document:

- The place of destination of the consignment(s) and the identification of the transport vehicle;
- The external identification number and name of the fishing vessel that has landed the products;
- The FAO alpha-3 code of each species and the relevant geographical area in which the catches were taken;
- The quantities of each species transported in kilograms in product weight, broken down by type of product presentation or, where appropriate, the number of individuals;
- The name(s) and address(es) of the consignee(s);
- The place and date of loading.

Member States may exempt operators from the requirement to carry and submit a transport declaration if the catch only is to be transported locally (within 20 km).

The transport document may be replaced by a copy of the landing declaration or equivalent.

If fishery products are transport after sale the operator must be able to prove with a document that a sale has taken place.

Part C. Data and information sources

- Vessel monitoring system (VMS)
- Data from ERS
- Documents covered by Section 2.1 — Check legal documents

Part D. Methodology

(a) **Production logbook**

The master should be asked if there is a production log. This may be in the form of an exercise book used by the person in charge of the fish room to record storage. The data, if available, should be used to compare with the assessment of the catch on board and landed, and the records in the fishing logbook. It will be necessary to convert the processed weight in the production log to live weight using conversion factors ([227]) for the production method to make these comparisons. For example if the production log shows 5 000 kg of gutted, head and tail on cod it should be multiplied by the conversion factor 1.17 to give 5 850 kg which should equate with the figure in the logbook (plus or minus the 10 % tolerance of 585 kg).

(b) **Stowage plan**

Inspectors should first ascertain if a stowage plan is required. If so, the master should be asked to produce it and it should be examined to see if it clearly indicates the location of different species both horizontally and vertically in the fish hold. This may need explanation from the master.

The inspector should bear in mind that catches of demersal species subject to a multi annual plan should be shown on the stowage plan indicating their location in the hold ([228]).

([227]) Article 49 and Annexes XIII–XV of Commission Implementing Regulation (EU) No 404/2011.

([228]) Article 44 of Regulation (EC) No 1224/2009.

Additionally, all catches of species below the MCRS retained on board a Union fishing vessel shall be placed in boxes, compartments or containers in such a way that they are separated from other such boxes, compartments or containers. Those catches shall not be mixed with other species above MCRS ([229]). This does not apply to vessels less than 12 metres length overall ([230]).

The inspector should then confirm by observation the location of fish in the hold corresponds with the stowage plan and the required fish are separately stowed, taking into account any possible movement of fish containers caused by movement of the vessel. In the case of frozen fish it may be necessary to identify the species from the label if one is applied.

Failure to maintain an accurate stowage plan and separately stowing multi-annual plan species when required are infringements.

(c) Labelling

Any cartons or containers of fishery products should be examined for a label. For commercial reasons the labels will show information in the same format, e.g. vessel name, species weight, etc. and after examining several cartons, the inspector should be able to understand the system of labelling used on that vessel.

With this information, the inspector can compare the observed fish with the stowage plan (if required on the vessel). The number of boxes landed by each labelled category may be counted to assess the quantity of fish to compare with the fishing logbook and other records.

Failure to use labels is not an infringement if all the fishing has taken place in EU waters.

(d) Catch certificate

Inspectors should ascertain if a catch certificate is required and if so what information is required and what timeline is required for submission, taking into account any special administrative arrangements depending on the source of the fishery product to be landed.

Inspectors should then compare any observations of the catch landed against the requirements of the catch certificate for that landing.

(e) Transhipment declaration

The logbook (paper or ERS) should be examined to see if it contains a transhipment declaration. If a transhipment declaration exists for the current fishing trip it should first be checked to see if the transhipment was legally made; that is with prior approval and in a port or a place close to the shore, designated for that purpose. This information may not be on board the fishing vessel and in this case, it will be necessary to check with the FMC of the flag Member State. It may be necessary to check VMS records to confirm the place of transhipment.

If the transhipment had been legally made, the quantity of fish assessed to be on board should equal the fish in the fishing logbook less the fish in the transhipment declaration for the catching vessel and the converse for the receiving vessel.

Failure to make an accurate transhipment declaration is an infringement.

(f) Transport document

Inspection of the landing of a fishing vessel will take place before any fish is transported away from the place of landing which precludes direct control of any transport document.

Inspectors may, however, be aware from observations and local knowledge that part or all of the fish landed is to be transported before sale. For example if the fishery products

([229]) Article 49a (1) of Council Regulation (EC) No 1224/2009.

([230]) Article 49a (2) of Council Regulation (EC) No 1224/2009.

are loaded directly onto a transport vehicle from the vessel, there are empty transport vehicles waiting and/or there are no local facilities for sale. In these cases the inspector can satisfy him/herself that all the requirements of the transport document will be met.

The inspector will need to be aware of any national exemptions for local transport and have access to the ERS to check if an electronic transport document has been submitted.

The inspector may have the legal power to prevent the movement of a transport vehicle that does not meet the requirements of the transport document.

Chapter 2.2.7 — Control observer's report

Part A. Introduction

A control observer may be deployed on board a fishing vessel for all or part of a fishing voyage under a European control observer scheme ([231]). The task of the control observer is to verify compliance with the rules of the common fisheries policy (CFP), on board the fishing vessel ([232]).

European control observer schemes are seen in some fisheries regulated by a regional fisheries management organisation (RFMO) and in some fisheries conducted under a sustainable fisheries partnership agreement (SFPA) in the waters of a third country. Control observer schemes in RFMOs and SFPAs may be subject to special rules that are not covered by the general rules, such as ICCAT ([233]).

The key elements of a control observer is that he or she is independent, suitably qualified and has access to all relevant parts of the vessel including the catch and the vessel's documents including electronic files. As far as is possible the control observer should not interfere with the normal operation of the fishing vessel.

On board an EU fishing vessel a control observer is authorised to carry out his or her duties by the national authorities of a Member State, which may or may not be the same as the flag Member State.

It is important to differentiate a control observer, who is concerned with compliance, from a scientific observer, who may be concerned with more general, non-attributable data.

Part B. Concepts and definitions

(a) Circumstances in which a control observer's report is required

Following deployment a control observer must draw up a report of his or her observations and forward it without delay, preferably by electronic means, to the authorities of the authorising Member State and the flag Member State.

If the observer notices a serious infringement ([234]) he or she must inform the authorities of the flag Member State without delay.

Control observers shall, where appropriate, brief officials who are about to carry out an inspection and if possible and appropriate, the briefing shall take place in a closed meeting ([235]).

(b) Content of the control observer's report

Generally the format of the observer's report is covered by the implementing rules of the control regulation ([236]). The format of a control observer's report from a fishery in the regulatory area of an RFMO or in the waters covered by an SFPA may be different.

(c) Deadline for submission of the control observer's report

Generally the deadline for submission of the observer's report is 30 days following the completion of the observer's assignment ([237]). The deadline for submission of a control observer's report from a fishery in the regulatory area of an RFMO or in the waters covered by an FPA may be different.

([231]) Article 73(1) of Council Regulation (EC) No 1224/2009.

([232]) Article 95(1) and Annexes XXV of Commission Implementing Regulation (EU) No 404/2011.

([233]) Articles 50 and 51 of Regulation (EU) No 2016/1627.

([234]) Article 42 of Council Regulation (EC) No 1005/2008.

([235]) Article 95(2) of Commission Implementing Regulation (EU) No 404/2011.

([236]) Article 95(3) and Annexes XXVI of Commission Implementing Regulation (EU) No 404/2011.

([237]) Article 95(3) of Commission Implementing Regulation (EU) No 404/2011.

Part C. Data and information sources

— Control observer's report
— ERS
— VMS

Part D. Methodology

(a) How to verify the observer's report

The inspector will need to check if the fishery that has been exploited by a vessel that is about to be inspected is covered by a European control observer scheme. In most cases observers are seen in fisheries in the regulatory areas of an RFMO or in waters covered by an SFPA, when they may be subject to special rules.

In most cases the observer will not submit the report at the time of any landing inspection and indeed the report may not have been prepared at that point.

The inspector should be prepared, if the need arises, to be briefed by the control observer in private and to have a strategy for handling any reports (verbal or otherwise) of illegal activity.

Appendix 1: Bibliography

None

Appendix 2: Links and references

- EUR-Lex for copies of regulations: http://eur-lex.europa.eu/RECH_naturel.do
- Union fleet register: http://ec.europa.eu/fisheries/fleet/index.cfm
- The secure part of Member State websites for lists of special fishing permits
- ICCAT recommendations: http://www.iccat.int/en/RecsRegs.asp
- Catch certificate arrangements: http://ec.europa.eu/fisheries/cfp/illegal_fishing/info/index_en.htm

Appendix 3: Legislation

- Council Regulation (EC) No 850/98 of 30 March 1998 for the conservation of fishery resources through technical measures for the protection of juveniles of marine organisms.
- Commission Regulation (EC) No 26/2004 of 30 December 2003 on the Community fishing fleet register.
- Council Regulation (EC) No 1005/2008 of 29 September 2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing, amending Regulations (EEC) No 2847/93, (EC) No 1936/2001 and (EC) No 601/2004 and repealing Regulations (EC) No 1093/94 and (EC) No 1447/1999.
- Commission Regulation (EC) No 1010/2009 of 22 October 2009 laying down detailed rules for the implementation of Council Regulation (EC) No 1005/2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing.
- Council Regulation (EC) No 1224/2009 of 20 November 2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy (CFP).
- Commission Implementing Regulation (EU) No 404/2011 of 8 April 2011 laying down detailed rules for the implementation of Council Regulation (EC) No 1224/2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy (CFP).
- Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 693/2004 and Council Decision 2004/585/EC.
- Regulation (EU) 2015/812 of the European Parliament and of the Council of 20 May 2015 amending Council Regulations (EC) No 850/98, (EC) 2187/2005, (EC) No 1967/2006, (EC) 1098/2007, (EC) No 254/2002, (EC) No 2347/2002 and (EC) No 1224/2009, and Regulations (EU) No 1379/2013 and (EU) No 1380/2013 as regards the landing obligation and repealing Council Regulation (EC) No 1434/98.
- Regulation (EU) 2016/2336 of the European Parliament and of the Council of 14 December 2016 establishing specific conditions for fishing for deep-sea stocks in the north-east Atlantic and provisions for fishing in international waters of the north-east Atlantic and repealing Council Regulation (EC) No 2347/2002.

Module 3 Inspect conformity of catch

Section 3.1 Confirm the quantities of each species retained on board 2

Section 3.1 Confirm the quantities of each species retained on board

Coverage: EU ports — All vessels

1. Objective(s)

This module, with associated on-the-job training, will enable the trainee to confirm the quantities of each species retained on board during landing inspections. This section will assist the trainee to complete the 'landing inspection' section, fields 44 to 54 of the minimum information required for the completion of inspection reports ([238]). For the purposes of this course, the term 'landing' means the initial unloading of any quantity of fisheries products from a fishing vessel to land ([239]). A 'landing inspection' is the examination by fisheries inspectors of the fishing vessel undertaking the landing including the fisheries products involved and the associated documentation.

2. Overview ([240])

The quantities of most species of marine organisms a vessel can retain on board and land are regulated by a system of quotas which are set at the European level and managed at the national level. Generally the quantities of each species above 50 kg retained on board must be recorded in a logbook, electronic or paper, by vessels of 10 m overall length or more (without prejudice to any specific provisions contained on any multiannual plans or national requirements). An inspector must be able to accurately check the conformity of the catch retained on board and landed as part of the inspection process.

3. Entry requirements

The trainee should be able to identify species of marine organisms retained on board fishing vessels in the national inspectorate's normal operating area. In addition, the trainee should be familiar with the operation of the vessel monitoring system (VMS), electronic recording system (ERS) and automatic identification system (AIS).

([238]) Article 115 and Annex XXVII and points 44-54 of Module 3 of Commission Implementing Regulation (EU) 404/2011.

([239]) Article 4(22) of Council Regulation (EC) No 1224/2009.

([240]) Article 14 of Council Regulation (EC) No 1224/2009.

Chapter 3.1.1 — How to identify various marine organism presentations

Part A. Introduction

Most regulations including those governing quotas of marine organisms and fishing logbooks are made in terms of the live weight of the marine organism. However, in many situations the marine organisms retained on board and landed by fishing vessels are processed or subject to specialised stowage procedures for several reasons:

- To increase the shelf-life of the product, this is usually achieved by removing the internal organs (gutting).
- To remove those parts which may have no commercial value such as heads, tails, fins, etc.
- Specialised processing geared to specific markets, for example filleting and removing skin.
- To retain the quality of the fresh catch until landed to shore processors.

Part B. Concepts and definitions

All regions

(a) **Live weight:**

The live weight of a marine organism is its weight in its natural state at the time of capture and before any processing is carried out.

(b) **Presentation** ([241]):

Presentation means the form into which the marine organism is processed while on board of the fishing vessel and prior to landing. Individual presentations are identified with a 3-alpha product presentation code ([242]) (see Annex I).

(c) **Collective presentation** ([243]):

Collective presentation means a presentation consisting of two or more parts extracted from the same fish.

(d) **State of processing** ([244]):

State of processing means the way the fish is preserved (fresh, fresh salted, frozen, etc.). They are identified with a 3-alpha state of processing code ([245]).

Part C. Data and information sources

(a) **The fishing logbook** ([246]):

The fishing logbook contains the master's estimates in live weight of marine organisms retained on board by species over 50 kg equivalent live weight and for certain species the number of individuals retained including the estimated quantities of species below the applicable minimum conservation reference size as a separate entry when they are subject to the landing obligation (see Chapter 2.2.3). The logbook also contains the master's estimates of discards above 50 kg live weight of species not subject to the

([241]) Article 48 of Commission Implementing Regulation (EU) No 404/2011.

([242]) Annex I of Commission Implementing Regulation (EU) No 404/2011.

([243]) Article 48 of Commission Implementing Regulation (EU) No 404/2011.

([244]) Annex I of Commission Implementing Regulation (EU) No 404/2011.

([245]) Annex I table 2 of Commission Implementing Regulation (EU) No 404/2011.

([246]) Article 14 of Council Implementing Regulation (EC) No 1224/2009.

landing obligation. The logbook must be completed before the commencement of any landing operations.

(b) **The landing declaration**

The landing declaration is an electronic or paper record of the actual weight in kg per species of marine organisms landed by a fishing vessel. There is no permitted tolerance between the actual weight landed and landing declaration weight.

(c) **The production logbook**

Vessels where some form of fish processing is carried out on board generally maintain a record of this activity which is known as the production log. This frequently consists of a computer-based record linked to the production system. This log indicates all the production activity carried out during the voyage and typically for a pelagic freezer will record the species by grade, weight, date and time of production, number of cartons, net weight of cartons and storage location. Details of the labelling content may also be available ([247]).

Part D. Methodology

Two fundamental processes should be followed by inspectors when identifying marine organism presentation, the first is a careful examination of the fishing logbook, the landing declaration if available and any other pertinent documentation, the second is a comprehensive inspection of the retained catch as it is landed. In order to ensure the veracity of catch information recorded in the logbook, the inspection should start before the commencement of any landing operations.

(a) **To identify the presentation of marine organisms landed as live weight:**

- From the logbook identify those species that have been retained in the natural state and the method of stowage. Ascertain from the master if any of the catch is to be retained on board.
- If possible, inspectors should examine the fish stowage area before the landing commences.
- As the catch is landed, inspect those species recorded as retained in the natural state and compare with the species declared in the logbook. Species landed in boxes, bins or other containers should be checked to ensure the declared species are not mixed with other undeclared species or that undeclared species are covered by a layer of declared species in the container.
- On completion of the landing, the fish hold should be inspected to confirm whether any fish has been retained on board.

(b) **To identify the presentation of marine organisms processed on board:**

- From the logbook identify those species that have been retained and processed on board and the method of stowage. Ascertain from the master if any of this catch is to be retained on board.
- If possible, inspectors should examine the fish stowage area before the landing commences.
- As the catch is landed, inspect those species recorded as processed and compare with the species and method of processing declared in the logbook. Species landed in boxes, bins or other containers should be checked to ensure the declared

([247]) Article 58 of Council Regulation (EC) No 1224/2009.

species are not mixed with other undeclared species or that undeclared species are covered by a layer of declared species in the container.

- Inspect the individual species and confirm the type of presentation in use. Note that individual species within the same catch may be presented in different ways depending on the size and the intended market, for example smaller sizes of Haddock (*Melanogrammus aeglefinus*) retained in Region 2 may frequently be retained in the natural state while the larger sizes may be presented as gutted.

(c) **To identify collective presentation:**

In the case of collective presentations, only one presentation should be used to calculate the equivalent live weight, to avoid 'double counting' of the same marine organism. For example, the marine organism may be presented as gutted, but also the roes may be retained. Obviously, both presentations have come from the same batch of marine organism, therefore only one weight (normally the gutted weight) should be used to calculate the equivalent live weight.

Chapter 3.1.2 — How to identify the stowage

Part A. Introduction

The method of assessment of the quantities and species retained on board any fishing vessel is primarily dependant on the method of stowage used, for example for fresh marine organisms, frozen marine organisms or marine organisms in sea water tanks. This chapter describes the different methods of stowage seen on fishing vessels and how inspectors can identify the stowage.

Part B. Concepts and definitions

All regions

(a) **Stowed on deck:**

Commonly found on small inshore vessels targeting a wide range of species which usually land the catch at least once per day. Marine organisms will frequently be stowed in boxes or bags on deck and covered with a wet cover to protect the catch from the sun. Some vessels may also use small deck mounted vivier tanks (see subpart (g) below). Inshore vessels targeting pelagic species and landing on a daily basis may also stow the fish in deck pounds.

(b) **Fish hold:**

A fish hold is any space designed or capable of holding marine organisms. A fish hold may also be called a 'fish room'.

(c) **Fresh stowage:**

Fresh marine organisms are usually stowed in an insulated dry hold either in boxes, bins, sacks, bags or stowed in bulk. Boxes normally hold between 10 kg and 50 kg and bins will hold up to 400 kg. They are normally made of plastic or occasionally metal. Ice will normally be added to the box.

Shellfish such as King scallops (*Pecten maximus*) may be stowed in sacks or bags.

Bulk-stowed marine organisms are stored directly on ice in the hold without containers in areas called pounds separated by vertical boards. The marine organisms may also be separated horizontally (shelved) to ease the pressure on the marine organisms stowed below. Bulk storage of this type is found less frequently nowadays and is usually used to stow larger species such as Atlantic halibut (*Hippoglossus hippoglossus*) and blue fin tuna (*Thunnus thynnus)* where boxed stowage is not appropriate.

Many fish holds on modern fishing vessels are refrigerated and in this case ice is not always used. Ice may be taken on board before the trip starts from an ice machine or factory on the shore or it can be produced on board by the vessel's own equipment.

Some smaller vessels making short fishing trips may stow the catch on deck, either in boxes or directly on the deck separated and held by wooden boards.

(d) **Frozen stowage:**

Marine organisms may be frozen at sea in order to preserve the quality and allow longer fishing voyages, typically several months for demersal freezer trawlers and several weeks for pelagic freezer trawlers. The catch is processed and frozen shortly after capture

and stored in a frozen hold at about – 25 ˚C. Demersal species may be processed in a number of ways ranging from freezing whole to skinless fillets. Pelagic species are generally frozen whole. Most freezer vessels will have several holds, typically two or three holds for a demersal trawler with a total capacity of 500 to 1 000 t and three to five holds on a pelagic freezer trawler and a total capacity of 1 000 to 5 000 t. Some freezer holds may be split with a 'tween' deck into an upper and a lower hold. Freezer facilities may also be found increasingly on smaller vessels where high value species such as whole Norway lobsters (*Nephrops norvegicus*) may be frozen immediately after capture in order to add value to the product.

Normally frozen marine organisms are stored in standard sized cardboard boxes ranging from 5 to 30 kg although large marine organism, for example Atlantic halibut and blue fin tuna, may be stored individually, sometimes wrapped in plastic. Frozen shellfish, such as prawns and shrimps may be stored in bags of up to 30 kg in weight.

Figure 7 — *Example of a freezer trawler*

(e) **Salted fish:**

Rarely seen nowadays but due to the potentially high value some vessels still salt the catch, usually cod (*Gadus morhua*) and ling (*Molva molva*). In a highly skilled process the fish is headed, gutted and split along the backbone then laid flat in layers in the hold and covered with salt. Moisture drawn from the fish gravitates into the bottom of the hold from where it is discharged overboard. As the moisture content of the fish reduces the volume of the catch decreases.

(f) **Refrigerated sea water tanks:**

Pelagic vessels landing to a shore-based production facility generally store the catch unprocessed in tanks containing refrigerated sea water held at a temperature of around 2–3 ˚C. Each vessel may have up to 12 tanks and generally the tanks are arranged in rows as a centre line tank and two wing tanks. The salt water is maintained at the correct temperature by re-circulating the chilled water through a chilling plant. Refrigerated sea water tank vessels commonly use a vacuum pump system to transfer the catch from the net to a draining area prior to routing into a tank. The same system is used to discharge the catch to the shore factory.

Figure 8 — *Example of a refrigerated sea water tank vessel*

(g) **Vivier tanks:**

Live shellfish, commonly crabs and lobsters (*Homarus gammarus*) are frequently stored in tanks of circulating seawater. These can either be small individual tanks placed on deck or large specially constructed tanks integral within the fish hold and accessed through small deck hatches. Vivier tanks may also be used to store live bait; this should be recorded in the fishing logbook.

(h) **Fish room certificate** ([248])**:**

A fish room (or fish hold) certificate is a document with accurate drawings and description, of the fish rooms (storage spaces) and the access points to these spaces (see Handbook Section 2.1.5). It includes the storage capacity of the fish rooms in cubic metres. The fish room certificate is required for EU vessels of 17 m length overall and over and it must be certified by the competent authorities of a Member State and be kept on board the fishing vessel (see Handbook Section 2.1.5).

The inspector uses the fish room certificate as one of the tools to assess the quantity of marine organisms on board.

(i) **Ullage tables for refrigerated sea water tanks** ([249])**:**

An ullage table is a document carried on board the catching vessel showing the volume in the tank in cubic metres at 10 cm intervals (see Handbook Section 2.1.6).

They are normally expressed as the ullage or space remaining above any fish and water contained in the tank so that, for example, a full tank would have an ullage value of zero. The measuring point for the ullage is designated on each table, for example 'Hatch Coaming Top Forward End'. An example ullage table is shown at Annex II.

([248]) Article 7 of Commission Implementing Regulation (EU) No 404/2011.

([249]) Article 7 of Commission Implementing Regulation (EU) No 404/2011.

(j) **Bluefin Tuna (BFT) farming activity**

Figure 9 — *Example of BFT farming activity*

- **Farming caging:**

A blue fin tuna farming cage is a closed space capable of holding alive blue fin tuna individuals during a certain period for the purpose of fattening. Typically, these floating facilities, generally bigger than the transport cages, are located at around 1–3 nm off the coast, where they are anchored at depth ranges between 35 m and 50 m.

(k) **Stowage plan** ([250])**:**

A stowage plan is a document that describes the location of the different species in the hold by EU vessels of 12 m overall length or more when fishing for demersal species subject to a multiannual plan (see Handbook Section 2.2.6).

There is no standard EU format for the stowage plan but it should be sufficiently clear for the inspector to be able to use it to find the different species in the hold. For example, a drawing showing a plan view of the hold and the names of the species will be sufficient. For larger holds, where the species may be different at different levels there will need to be an indication of the vertical location of the fish.

The inspector uses the stowage plan to locate, identify and assess the catch on board.

([250]) Article 44 of Council Regulation (EC) No 1224/2009.

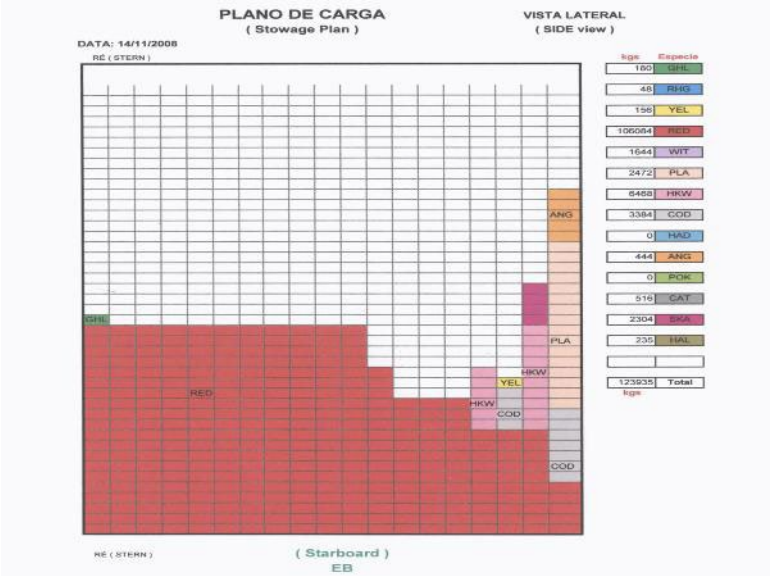


Figure 10 — *Example of a stowage plan*

(l) Separate stowage

In a mixed fishery multiple species may be retained during a typical fishing voyage. Demersal species subject to a catch recovery plan must be stowed separate from other species ([251]) in such a way they are identifiable.

Part C. Data and information sources

- Fishing logbook
- Stowage plan
- Ullage tables

Part D. Methodology

It is good practice for inspectors to carefully observe the characteristics of the fishing vessel prior to the inspection as this provides valuable information regarding the likely target species and stowage methods employed on that individual vessel. Two fundamental processes should be followed by inspectors when identifying stowed marine organism, the first is a careful examination of the logbook and any other relevant documentation, the second is a comprehensive observation and inspection of the retained catch and the stowage spaces before the landing commences and during the landing.

(a) Stowed on deck:

- Before the landing commences the inspector should examine all boxes on deck to gain a complete picture of the retained species.
- Some inshore vessels may also have a small dry hold below the main deck.

(b) Fresh stowage:

- From the fishing logbook, note the species and weights and stowage methods recorded.
- If available check the stowage plan and identify any species requiring separate stowage.

([251]) Article 44(1) of Council Regulation (EC) No 1224/2009.

- Similarly check the fish room plan to identify the location of the spaces in use and other spaces that may be empty but must still be inspected.
- Inspect the declared storage areas and confirm recorded information.
- Inspect any other areas where fish may be stowed, for example empty fish holds, box stowage areas and bait rooms.

(c) **Frozen stowage:**

- From the fishing logbook, note the species, weights and stowage methods recorded.
- If available check the stowage plan and identify any species requiring separate stowage.
- Similarly check the fish room plan to identify the location of the spaces in use and other spaces that may be empty but must still be inspected.
- Inspect the declared stowage areas and confirm the recorded information.
- Inspect any other areas where frozen fish may be stowed.
- On pelagic freezer vessels, newly caught fish is frequently held in refrigerated sea water tanks prior to transfer to the freezer plant. Any such tanks should be checked as part of the inspection.

(d) **Refrigerated sea water tanks:**

- From the fishing logbook, note the species and weights and stowage methods recorded.
- From the ullage tables, identify the total number of tanks and identify those containing fish.
- Visually check each tank, including empty tanks by observation through the tank lid. A powerful torch is a useful tool here.

(e) **Vivier tanks:**

- From the fishing logbook, note the species and weights and stowage methods recorded.
- If the tanks are mounted on deck, visually check the tank by observation.
- If the tanks are below decks, visually check as far as possible, however the construction of integral vivier tanks and the lack of any access at sea apart from a relatively small loading hatch makes this a difficult task.

(f) **BFT farming activity:**

- From the fishing logbook, note the weight and number of individuals recorded.
- From the fishing logbook, confirm any transfer details.
- Visually check if nets and floats are assembled to the cage ring.
- Occasionally, some Member States have used divers to monitor the cages. In some occasions, others have used divers at the catching point to monitor the transfer operations.

(g) **Verification of separate stowage**

It is important that inspectors should verify that any separate stowage criteria is in force before any of the associated catch is landed. This can only be achieved by physical examination of the fish in the hold:

- The inspector should confirm the presence of species requiring separate stowage from the logbook and the physical catch assessment;
- Using the stowage plan and the fish room certificate (if available), the inspector should verify the location of these species in the hold, checking other areas in case they are not correctly recorded;
- Verify the species are stowed separately, this means no mixing of species in a box and no mixing of boxes of different species in the same part of the hold, a practical interpretation of mixing of boxes of different species taking into account the layout of the hold may be required;
- On smaller vessels, it may not be possible to completely separate boxes because of a lack of space;
- Fish that is bulk stowed in pounds should not be mixed with other species in the same pound, again taking into account the practical layout of the hold.
- The inspector should bear in mind that catches of demersal species subject to a multi annual plan should be shown on the stowage plan indicating their location in the hold. ([252])
- Additionally, all catches of species below the minimum conservation reference size retained on board a Union fishing vessel shall be placed in boxes, compartments or containers in such a way that they are separate from other such boxes, compartments or containers. Those catches shall not be mixed with other species above MCRS. This does not apply to vessels less than 12 m length overall. The inspector should bear in mind that catches of demersal species subject to a multi annual plan should be shown on the stowage plan indicating their location in the hold.
- Additionally, all catches of species below the minimum conservation reference size retained on board a Union fishing vessel shall be placed in boxes, compartments or containers in such a way that they are separate from other such boxes, compartments or containers. Those catches shall not be mixed with other species above MCRS ([253]). This does not apply to vessels less than 12 m length overall ([254]).

([263]) Article 44 of Regulation. (EC) No 1224/2009.

([264]) Article 49a (1) of Council Regulation (EC) No 1224/2009.

([265]) Article 49a (2) of Council Regulation (EC) No 1224/2009.

Chapter 3.1.3 — Check compliance with minimum conservation reference sizes of marine organisms

Part A. Introduction

The protection of juvenile marine organisms is a key element of the common fisheries policy (CFP): therefore minimum conservation reference sizes have been established for the main commercial species found in EU waters ([255]).

Part B. Concepts and definitions

a) **The minimum conservation reference size (MCRS)** ([256])

'Minimum conservation reference size' means the size of a living marine aquatic species taking into account maturity, as established by Union law, below which restrictions or incentives apply that aim to avoid capture through fishing activity; such size replaces, where relevant, the minimum landing size;

b) **Landing obligation**

An obligation to land all catches ("the landing obligation") of species which are subject to catch limits and, in the Mediterranean Sea, also catches of species which are subject to minimum sizes, made during fishing activities in Union waters or by Union fishing vessels should be established and gradually implemented and rules that have so far obliged fishermen to discard should be repealed.

c) **Discard plans**

Exemptions to the landing obligation may be adopted through EU law or by discard plans; such acts made by delegated acts by MS which have a direct management interest in a specific fishery, may specify additional technical conditions under which species subject to the landing obligation may be discarded.

d) **Unintended catches** ([257])

Unintended catches shall mean incidental catches of marine organisms which, must be landed and counted against quotas either because they are below the applicable MCRS, or because they exceed the quantities permitted under the catch composition and by-catch rules.

e) **Methods of measuring marine organisms**

A range of devices are available to help inspectors undertake checks on the size of retained marine organisms. Many of these may be stamped with a serial number, may be calibrated in some way and have the corresponding calibration certificates. As a general rule, inspectors should ensure that the gauge or gauges to be used are fit for purpose and, if they have been calibrated, that the calibration is up to date and the certificate is available. Failure to do so may render any results invalid from a legal perspective.

- Fish measuring board:

  A typical fish measuring board consists of a horizontal flat plate with a vertical end plate at one end. Inserted into the flat plate is a metric measure with the zero point located at the end plate. Fish are measured by placing the snout against the end plate and measuring the length at the end point of the tail fin.

([255]) Annex XII of Council Regulation (EC) No 850/98 and Annex III of Council Regulation (EC) No 1967/2006.

([256]) Article 4(17) of Regulation (EU) No 1380/2013.

([257]) Article 3(i) of Council Regulation (EC) No 850/98.

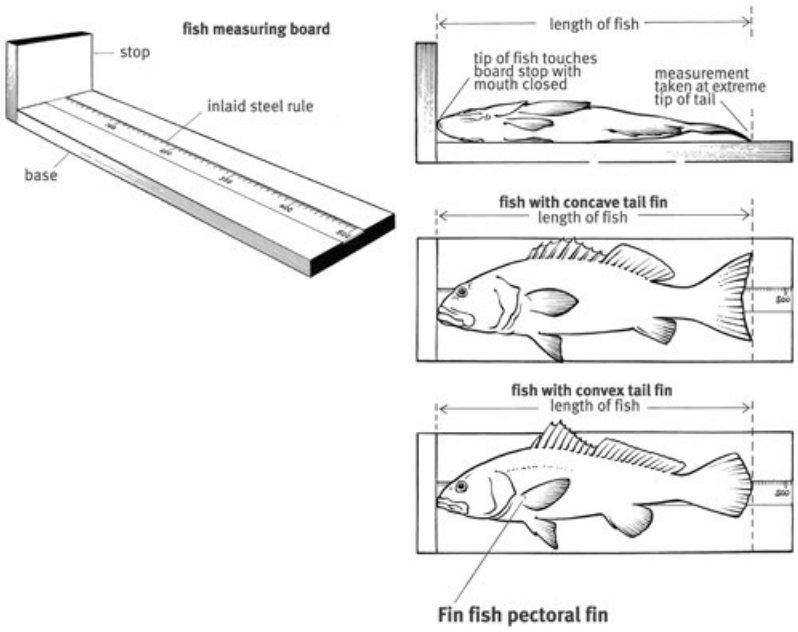


Figure 11 — *Example of a fish measuring board*

- Shellfish gauge:

  Shellfish gauges are available in various forms. Vernier gauges are most suitable for obtaining an exact size of the individual shellfish although this is a time consuming process if large numbers of catch are involved.

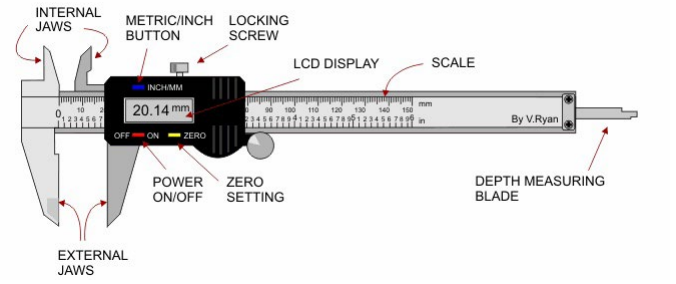


Figure 12 — *Example of a vernier shellfish gauge*

- Shellfish fixed gauges:

  An alternative is the fixed gauge consisting of a plate sized to allow undersized catch to pass through the plate. While this type of gauge does not allow individuals to be measured exactly, it does allow large numbers of catch to be quickly measured on a pass/fail basis.

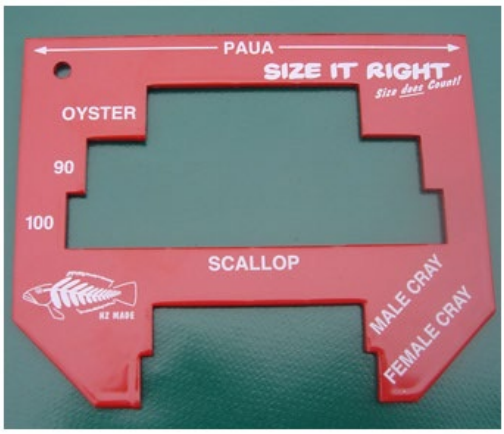


Figure 13 — *Example of a multi-size fixed gauge*

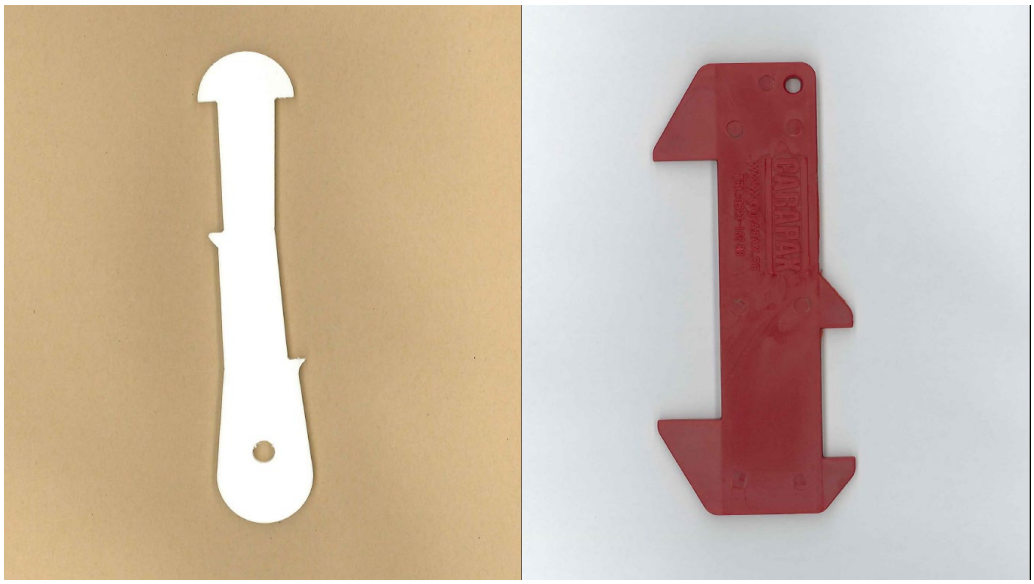


Figure 14 — *Other examples of fixed gauges*

Part C. Data and information sources

Tables with Minimum Conservation Reference sizes

Baltic Sea: Annex IV of Council Regulation (EC) No 2187/2005

Region 2-3: Annex XII of Council Regulation (EC) No 850/98

Region 9:

- Annex XIIa of Council Regulation (EC) No 850/98
- Recommendations from the General Fisheries Commission for the Mediterranean (GFCM) ([258])

Mediterranean Sea:

- Annex III of Council Regulation (EC) No 1967/2006
- ICCAT recommendations

([258]) Article 6 of Recommendation GFCM /39/2015/4.

Part D. Methodology

(a) **Inspection procedure:**

- Identify all the species in the hold and note those species which have a MCRS. It is recommended to carry a list of the MCRS as a reminder. Identify which boxes (or stowage area for bulked fish) contain smaller fish. It may be necessary to check the boxes at the bottom of a stack or those stacked behind other boxes.
- Examine a representative sample of each species, concentrating on the boxes containing the smaller marine organisms. It is useful to also check boxes of larger marine organisms just in case any small individuals are mixed in. The whole box should be examined and not just the marine organisms on the top of the box. It may be necessary to separate out the marine organisms from any ice. This should be done with care to avoid damage and preferably with the assistance of a crew member.
- Measure the size of any marine organisms that appear to be close to the MCRS. The size of any undersized marine organisms should be noted.
- Shellfish such as scallops will generally be stored in sacks, inspectors should open a number of bags to check the contents.
- Unintended catches that are subject to the landing obligation, shall be kept on board. Species under MCRS shall be separately stowed from the species over MCRS ([259]). Verify those species over 50 kg live weight per species are recorded in the logbook as a separate entry.
- Unintended catches that are not subject to the landing obligation, shall not be retained on board, but shall be returned immediately to the sea ([260]). Verify those species when over 50 kg live weight per species are recorded in the logbook.

(b) **Measuring procedure:**

Marine organisms should be measured according to the following methodology, according to the class of the organism ([261]) ([262]).

- **Fish**
  - — Fish should be measured using a fish measuring board (see Figure 11).
  - — Lay the fish with the snout against the vertical plate and the length is taken at the extreme end of the tail. The tail tip should be equal or pass the mark on the measuring board that corresponds to the minimums size for the measured species (according to the region were the fish is caught). The amount and size of undersized species should be recorded to assess and document the dimension of the infringement.
  - — If a fish measuring board is not available, a steel tape measure may be used although this is not as effective and takes considerably longer.
- **Larger fish** ([263])
  - — Larger fish species such as blue fin tuna and swordfish should generally be measured using a steel tape measure.
  - — All species with the exception of swordfish should be measured fork length, that is to say the vertical distance drawn from the tip of the upper jaw to the extremity of the shortest caudal ray.
  - — The size of swordfish should be measured from the tip of the lower jaw to the fork of the caudal fin.

([259]) Article 49a of Council Regulation (EC) No 1224/2009.

([260]) Article 15(12) of Regulation No 1380/2013.

([261]) Article15(2) and Annex IV of Council Regulation (EC) No 1967/2006.

([262]) Article 18 and Annex XIII of Council Regulation (EC) No 850/98.

([263]) Article 10 of Council Regulation (EC) No 520/2007.

- **Shellfish and molluscs:**
  - — The external jaws of the gauge are placed across the part to be measured and a reading taken off the machine to an accuracy of 1 mm: a non-electronic Vernier gauge can also be used.
  - — Shellfish may also be measured using a fixed gauge. A fixed gauge is useful where large quantities of shellfish, for example king scallops are measured and a simple pass/fail test is required. Many shellfish fishermen routinely use a fixed gauge to check the size of the catch at the time of capture. As a matter of courtesy inspectors may wish to compare the gauge used by the fisherman with the official gauge to check the accuracy of the former.
  - — Lobsters and Norway lobsters:
    The size of lobster and Norway lobster is measured either as the length of the carapace, parallel to the midline, from the back of either eye socket to the distal dorsal edge of the carapace (length a in Figures 15 and 16), or as the total length, from the tip of the rostrum to the rear end of the telson, not including the setae (length b in Figures 15 and 16).
  - — Crawfish:
    The size of crawfish shall be measured as the length of the carapace, parallel to the midline, from the back of either eye socket to the distal dorsal edge of the carapace. (See Figure 17).
  - — Bivalve molluscs:
    The size of any bivalve mollusc shall be measured across the longest part of the shell (see Figure 18).

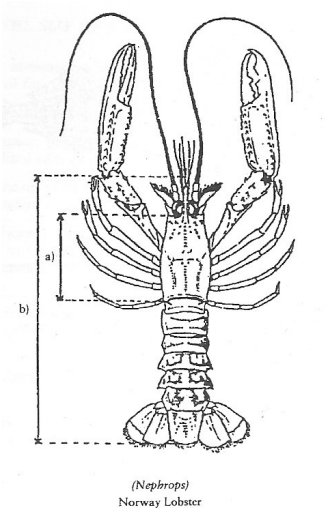


Figure 15 — *Norway lobster*

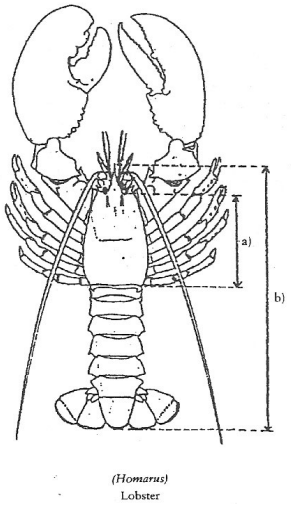


Figure 16 — *Lobster*

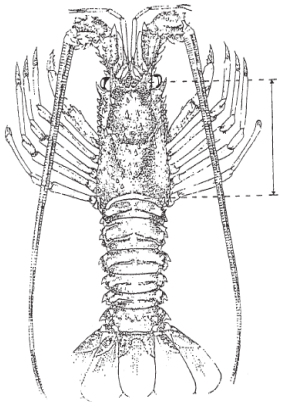


Figure 17 — *Crawfish*

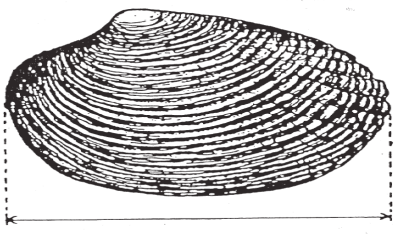


Figure 18 — *Bivalve mollusc*

- **Potential difficulties**

There are strong markets in some regions for certain species below the MCRS, for example sole, hake, lobster and king scallops. Inspectors should be aware of these regional market conditions when inspecting the catches of vessels landing to these markets. Checks should be made for undersized catch over-stowed with larger fish or undersized catch hidden in other spaces or behind ice, etc.

(c) **Minimum weight** ([264])**:**

- For some species, for example blue fin tuna, swordfish and blue marlin (*Makaira nigricans*) minimum lengths and minimum weights of individual fish retained are established.
- For anchovy (*Engraulis encrasicolus*) and sardine (*Sardina pilchardus*) ([265]), Member States may opt to apply minimum sizes by weight. In the Mediterranean these are 110 and 55 specimens per kg respectively. Inspectors should take a sample of at least 1 kg and count the number of specimens (N) and note the weight of the sample in kg (W). This figure (N) should then be divided by the weight of the sample to arrive at the number of specimen per kg.

([264]) Article 8 and Annex IV of Council Regulation (EC) No 520/2007.

([265]) Footnotes (*) and (**) to Annex III of Council Regulation (EC)1967/2006.

Chapter 3.1.4 — Weight of each species

Part A. Introduction ([266])

In order to verify compliance with the accuracy of the logbook entries at the time of landing it is necessary to determine the weight of each species of fish on board. Member States must ensure that all fishery products are weighed on systems approved by the competent authorities unless it has adopted a sampling plan approved by the Commission and based on the risk-based methodology adopted by the Commission. Generally the weighing should be carried out on landing prior to the fisheries products being moved to storage, transported or sold although Member States may permit fisheries products to be weighed on board the fishing vessel subject to a there being an approved sampling plan in place. Importantly registered buyers, registered auctions or other bodies or persons responsible for the first marketing of fisheries products in the Member State are responsible for the accuracy of the weighing operation unless the weighing takes place on board a fishing vessel, in which case it is the master's responsibility. The figure resulting from the weighing is used to complete any landing declarations, transport document, sales notes and takeover declarations.

Part B. Concepts and definitions

(a) Landing scenarios

Member States should ensure that all fishery products are first marketed or registered at an auction centre or to a registered buyer or producer organisation ([267]).

- **Fisheries products landed fresh**

Generally all fish products over 30 kg in weight should be sold at an auction centre or transported directly to a registered buyer or producer organisation who has purchased the product either under contract or directly from the fishing vessel during the voyage.

- **Fisheries products landed frozen**

Fishery products which have been frozen at sea are landed to a cold store where they will be maintained in a frozen state until sold on or defrosted for further processing. Typically this applies to products such as pelagic species frozen whole at sea and demersal species which may have undergone some form of processing at sea prior to freezing on board. Such products may frequently have been caught in waters outside EU waters or in the waters of an RFMO.

- **Fisheries products landed fresh in bulk**

Products landed fresh in bulk are usually limited to pelagic species such as sardines, herring, mackerel and horse mackerel. Some products such as sardines are usually landed daily to auction centres while herring, mackerel and horse mackerel are normally be landed less frequently by RSW-equipped vessels. In the latter cases, the fish is generally discharged directly to an adjacent processing facility via a pumping system although road tankers may be used on occasion.

(b) Responsibilities ([268])

The regulations place the responsibility for weighing of the retained species with the buyer, auction house or other responsible person or with master of the vessel where the species is weighed at sea. Fisheries authorities are responsible for ensuring the correct procedures are in place and implemented and that the results as provided by the responsible body or individual are accurate.

([266]) Article 60 of Council Regulation (EC) No 1224/2009.

([267]) Article 59 of Council Regulation (EC) No 1224/2009.

([268]) Art 60(4) of Council Regulation (EC) No 1224/2009.

(c) On-board weighing system ([269])

An on-board weighing system consists of scales used to weigh marine organisms whilst the vessel is at sea. Weighing systems should be calibrated and sealed in accordance with national procedures. Note that if products weighed at sea are subsequently re-weighed at the time of landing, the latter weight must be used for completion of the catch documentation.

(d) Unit of weight

Generally fish products are weighed in the unit in which they are landed, for example 50 kg box or 20 kg block. To confirm the unit weight is correct the total weight per species may be ascertained by multiplying the unit weight by the number of units. However in some instances, for example for bluefin tuna a minimum weight per fish is established and therefore it may be necessary to weigh each fish in the catch. Similarly some management plans for smaller species of fish, for example sardines establish a minimum number of species per unit weight, normally per kilo.

(e) Sampling plans ([270])

The regulations recognise that it is frequently not necessary to weigh every box, container or packet of product in the catch in order to ascertain the total weight of catch. Therefore in certain circumstances Member States may elect to use an approved sampling plan that incorporates risk based methodologies to allow a portion of the catch to be weighed in order to establish an average unit weight per species that may then be applied to the whole catch. Many Member States have adopted the use of sampling plans and fishery inspectors should be familiar with any sampling plans in use in their normal area of operations.

(f) Weighing of frozen products ([271])

Vessels that process and freeze their catch at sea often land the catch relatively infrequently and therefore the catch when they do land frequently consists of a very large number of cartons or packages and the landing can take a number of days. The regulations seek to provide a process that allows the catch to be correctly weighed without impinging excessively on the effort or time required to complete the landing and protects the quality of the product. Therefore when landed quantities of frozen fisheries products are weighed, the weight of frozen fisheries products landed in boxes or blocks may be determined per species and, where appropriate, presentation by multiplying the total number of boxes or blocks by a net average weight for a box or block calculated according to the methodology set down in the regulations.

(g) Weighing after transportation ([272])

The regulations recognise that there are occasions where, for operational or marketing requirements the weighing process is better undertaken at some location away from the point of landing. Therefore Member States may permit fisheries products to be weighed after transport from the place of landing provided that they are transported to a destination on the territory of the Member State concerned and that this Member State has adopted a control plan approved by the Commission and based on the risk-based methodology adopted by the Commission. In addition the Member State in which the fisheries products are landed may permit the transport before weighing of these products to registered buyers, registered auctions or other bodies or persons which are responsible for the first marketing of fisheries products in another Member State. This permission shall be subject to an approved common control programme between the Member States concerned.

([269]) Article 60 of Council Regulation (EC) No 1224/2009 and Article 72 of Commission Implementing Regulation (EU) No 404/2011.

([270]) Article 60(1) of Council Regulation (EC) No 1224/2009 and Article 76 of Commission Implementing Regulation (EU) No 404/2011.

([271]) Article 73 of Commission Implementing Regulation (EU) No 404/2011.

([272]) Article 61 of Council Regulation (EC) 1224/2009.

(h) Specific rules for weighing of herring, mackerel and horse mackerel ([273])

The regulations contain specific rules for the weighting of herring, mackerel and horse mackerel caught and landed by EU vessels. The rules apply to landing of more than 10 tonnes for:

- Herring caught in ICES zones: I, II, IIIa, IV, Vb, VI and VII;
- Mackerel caught in ICES zones: IIa, IIIa, IV, Vb, VI, VII, VIII, IX, XII, XIV and EU waters of CECAF;
- Horse mackerel caught in ICES zones IIa, IV, Vb, VI, VII, VIII, IX, X, XII, XIV and EU waters of CECAF.
- Generally weighing of these species should be undertaken at the time and place of landing.
  - — When landing in bulk using a conveyor belt system the weight of the fish must be recorded by the system and the cumulative weight displayed by the system ([274]).
  - — When landing using road tankers each tanker load must be weighed and recorded separately ([275]).
- The landings may only take place in ports designated by each Member State and notified to the Commission. Any such ports must have the appropriate facilities and inspection resources to ensure effective surveillance of these landings.
- The master of the fishing vessel concerned or his representative must inform the competent authorities of the Member State in which the landing is to be made, at least 4 hours in advance of entry of the port he intends to enter, the name of the vessel, the estimated time of arrival concerned and details regarding the species, weights and area of capture of the species to be landed.
- The master may not allow the discharge to commence until approval to do so has been received from the appropriate authority of the Member State. If for any reason the discharge is interrupted before completion, it shall not resume without approval from the authority.

(i) Specific rules for weighing bluefin tuna (*Thunnus thynnus*) ([276])

The scale and complexity of the bluefin tuna fisheries conducted in the eastern Atlantic and the Mediterranean places great pressure on the stock biomass. Therefore specific rules are required to control, amongst other factors, the weight of fish caught annually. Participating Member States are required to:

- Establish a sampling programme for the estimation of the numbers-at-size of the bluefin tuna captured ([277]).
- Sample by size in cages should be carried out on a sample of 100 specimens per 100 tonnes of live fish or on a sample of 10 % of the total number of fish placed in a cage. The size sample, on basis of length or weight, shall be taken during harvesting at the farm, and on the dead fish during transport.
- Sampling should be carried out during a harvest taken at random and should cover all cages. The data for sampling carried out each year shall be notified to the Commission by 31 May of the following year.
- Introduce specific fishing logbook catch recording requirements for masters of vessels involved in the catching or transporting bluefin tuna including fishing ([278]).
- The master of a purse seine catching vessel or of another catching vessel over 24 m fishing actively for bluefin tuna must send, by electronic or other means, to the competent authorities of his flag Member State a daily catch report. Alternatively the master of a catching vessel not referred to above must send to the competent authorities of his flag Member State a weekly catch report ([279]).

([273]) Section 2 of Commission Implementing Regulation (EU) No 404/2011.

([274]) Article 72 of Commission Implementing Regulation (EU) No 404/2011.

([275]) Article 84/2 of Commission Implementing Regulation (EU) No 404/2011.

([276]) Regulation (EU) No 2016/1627.

([277]) Article 46 of Regulation (EU) No 2016/1627.

([278]) Article 25 of Regulation (EU) No 2016/1627.

([279]) Article 26 of Regulation (EU) No 2016/1627.

- The master of an EU fishing vessel active in the bluefin tuna fishery or his representative must, at least 4 hours before the estimated time of arrival at the port, notify the competent authority of the Member State (including the flag Member State) or the Contracting Party Country whose ports or landing facility they wish to use ([280]).
- A completed bluefin tuna catch document ('catch document') is required for each bluefin tuna landed or transhipped, caged and harvested from farms in the EU ([281]).

(j) Ice and water ([282])

When weighing fishery products every effort should be made to remove any from the product before weighing:

- for pelagic products landed in bulk a maximum deduction of 2 % from the total weight may be made to allow for any ice and water unavoidably mixed with the product during discharge, this 2% deduction shall not apply to landings of pelagic species for industrial purposes or for non-pelagic species.

(k) Fishery products landed by third country vessels in a Member State ([283])

Generally fisheries products caught in waters outside EU waters and landed in a port of a Member State are subject to the same processes to establish the weights of the products concerned depending on the nationality of the vessel, the area of operations and the species concerned. This applies to EU vessels landing catch from waters outside the EU and third country vessels landing catch from any waters in the port of a Member State. However, inspectors should be aware of any documentation relating to specific regulations to control illegal, unreported and unregulated (IUU) fishing and authorisation submissions required, for example:

- **Catch certificate** ([284])

  To ensure the effectiveness of the prohibition of importation into the EU of IUU- derived fishery products any such products must only be imported into the EU when accompanied by a compliant catch certificate. The catch certificate must be validated by the flag state of the fishing vessel or fishing vessels which made the catches from which the fishery products have been obtained. It is used to certify that such catches have been made in accordance with applicable laws, regulations and international conservation and management measures. It must be validated by a public authority of the flag state with the necessary powers to attest the accuracy of the information. The validated catch certificate must be submitted by the importer to the competent authorities of the Member State in which the product is intended to be imported at least 3 working days before the estimated time of arrival at the place of entry into the territory of the EU. However the deadline of 3 working days may be adapted according to the type of fishery product, the distance to the place of entry into the territory of the EU or the transport means used.

- **Prior notification of landing** ([285])

  Masters of third country fishing vessels or their representatives must notify the competent authorities of the Member State whose designated port or landing facilities they wish to use at least 3 working days before the estimated time of arrival at the port. This period may be reduced for some fishery products under certain circumstances ([286]).

  Any vessel wishing to land fishery products from outside EU waters should generally not be allowed to land into a port of a Member State without the correct documentation being received within the required timescale.

([280]) Article 31 of Regulation (EU) No 2016/1627.

([281]) Article 3/1 of Regulation (EU) No 640/2010.

([282]) Article 74 of Commission Implementing Regulation (EC) No 404/2011.

([283]) Council Regulation (EC) No 1005/2008 and Commission Regulation (EC) No 1010/2009.

([284]) Article 12 of Council Regulation (EC) No 1005/2008.

([285]) Article 6 of Council Regulation (EC) No 1005/2008.

([286]) Article 1 of Commission Regulation (EC) No 1010/2009.

Part C. Data and information sources

(a) The following items should be considered as appropriate to the type of vessel being inspected and the type of stowage in use:

- Fishing logbook
- Production log
- Stowage plan
- Prior notification
- Catch certificate

Part D. Methodology

(a) While inspectors undertaking landing inspections are not directly responsible for the weighing of the fish products landed, it is necessary to ensure the correct weighing procedures are being adhered to by the responsible body and that any catch information contained in the appropriate documentation is valid. Therefore when monitoring landings of fisheries products and particularly the weighing of the products inspectors should:

- Before the landing commences, check any electronic logbook information has been received correctly and the estimated quantities of fishery products retained on board. Similar checks should be undertaken on the estimates recorded in paper logbooks.
- Check compliance with any other reporting and recording requirements, for example prior notification and catch certificate.
- Establish who is responsible for weighing the catch, ensure any weighing procedures are conducted in accordance with the regulatory requirements pertaining to the circumstances of the individual landing.
- Check that any weighing equipment being used complies with the regulations, particularly regarding the national calibration and certification requirements. This applies equally to any weighing equipment carried on board the fishing vessel and used to weigh the product being landed.
- Where pelagic species are being pumped ashore over a conveyor weighing belt, ensure the counter reading is noted or set at zero before the landing commences. The system should be monitored by the responsible person during the landing.
- Where pelagic species are being transported to the processor using road tankers, check the correct procedures are being followed when weighing the vehicle at an approved weighbridge when empty and full.
- If the product is being weighed under the governance of an approved sampling scheme, inspectors should be satisfied that the scheme requirements are followed.
- Where fisheries products are being landed boxed on ice, ensure the ice is removed before weighing.
- Where fishery products are being landed in units such as boxes or cartons, ensure that only the declared species is contained in the unit and the correct labelling is attached. If bins are in use, check below the top layers of fish to ensure other species are not stored in the lower part of the bin.
- During the landing ensure that all the catch is landed to an approved auction centre, registered buyer or producer organisation.
- Physically check the total number of units of each species landed against the estimated figures in the logbook.

- Check the presentation of each species landed.
- On completion of the landing, check the fish holds or tanks to ensure all the catch has been landed or, if catch is being retained on board that this is recorded correctly in the fishing logbook.

Chapter 3.1.5 — Calculate the live weight and compare with logbook figures for permitted tolerances

Part A. Introduction

The regulations recognise the practical difficulties faced by masters and crews of fishing vessels in accurately estimating the weight of marine organisms retained on board and prior to weighing. Equally it is of critical importance that the catch recorded in the logbook is a reasonably accurate reflection of the retained catch. Therefore the regulations allow for a level of tolerance between the weight of the actual catch and the weight of catch recorded in the logbook. This chapter describes the process of calculating the live weight using the established weights of species retained on board as discussed in the previous chapter, how to compare the actual live weight with the weight recorded in the logbook and check compliance with any permitted tolerances.

Part B. Concepts and definitions

(a) Conversion factors ([287])

A conversion factor is a factor to apply to the processed weight of a given species and presentation to calculate the equivalent live weight expressed in kg. Conversion factors may vary from one state of processing to another, for example:

- Conversion factor for gutted (GUT) fresh (FRE) European hake (*Merluccius Merluccius*, HKE) is: 1.11
- Conversion factor for gutted (GUT) frozen (FRO) European hake (HKE) is: 1.34

(b) Permitted tolerance

The permitted margin of tolerance in estimates recorded in the fishing logbook of the quantities in kilograms of fish retained on board is 10 % for all species, expressed as as a percentage of the fishing logbook figures ([288]).

(c) Undersized species

A marine organism is considered to be undersized if its physical size is less than that stipulated in regulation.

(d) Prohibited species

For the purposes of this course a prohibited species is considered to be a species of any marine organism retained on board for which the fishing vessel has no quota entitlement or which is specified by the regulations as a species which may not be retained on board in order to prevent exploitation of that species.

Part C. Data and information sources

- Fishing logbook
- Production log
- Stowage plan
- Prior notification
- Catch certificate

([287]) Article 49 of Commission Implementing Regulation (EU) No 404/2011.

([288]) Article 14(3) of Council Regulation (EC) No 1244/2009.

Part D. Methodology

(a) Process

- On completion of fishing operations and before entering port prior to landing the master of any vessel required to keep a logbook must submit electronically details of the catch on board in live weight. If a paper logbook is used details of the catch retained on board should be completed before arrive in port.
- During the landing, or at the time of arrival at a processor if permitted, the fisheries products contained in the catch must be weighted and recorded as processed weight.
- On completion of the weighing process a landing declaration must be completed recording the processed weight per species as established by weighing. The landing declaration must be submitted by the master or his representative within 24 hours of the completion of the landing or 48 hours for a paper landing declaration.
- Once the logbook and the landing declaration are available to the responsible body, the catch information should be cross checked between the logbook and landing declaration. Inspectors should:
  - — apply the appropriate conversion factor to the processed weight as recorded in the landing declaration to obtain the actual live weight per species landed;
  - — compare the actual live weight with the estimated live weight recorded in the logbook;
  - — the actual live weight per species must not vary from the estimated live weight by more than plus or minus 10 % expressed as a percentage of the fishing logbook figures.

(b) Calculate the live weight:

The live weight of the species is calculated by multiplying the processed weight with the corresponding conversion factor for that species and presentation:

Example 1 — *One box containing 42 kg of gutted cod* (Gadus morhua)

Product	Gutted fresh cod (GUT FRE COD)
Processed weight	42 kg
Conversion factor	1.17
Live weight	42 × 1.17 = 49.14 kg

The total live weight of the species is obtained by multiplying the average box weight by the total number of boxes.

Example 2 — *120 boxes of gutted cod with an average weight 42 kg*

Product	Gutted fresh cod (GUT FRE COD)
Live weight	49.14 kg
Number of boxes	120
Total live weight of cod	120 × 49.14 = 5 896.8 kg

(c) Express the live weight of each species as a percentage of the total live weight of all species retained on board

The purpose of this calculation may be to establish whether the actual live weight of species taken as a by catch lies within regulated parameters, for example bluefin tuna caught as a by-catch should not exceed 5 % of the total catch on board ([289]). Divide the bluefin tuna weight by the total catch weight and multiply by 100.

([289]) Article 16 of Regulation (EU) No 2016/1627.

Example 3 — *350 kg of BFT caught as by-catch*

Species	Actual live weight	% of total catch
Horse mackerel (*Trachurus spp*)	3 500 kg	3500/3850 × 100 = 90.1 %
BFT	350 kg	350/3850 × 100 = 9.9 % Fail > 5 %
Total all species	**3 850 kg**	

(d) Express the actual live weight of each species as a percentage of the estimated live weight of that species

Due to the landing obligation, and the subsequent discard ban, the catch composition rules are adapted similarly. Marine organisms of a species that are subject to the landing obligation and are caught in excess of the catch composition rules, shall be landed and counted against quota. Marine organisms of a species not subject to the landing obligation that are caught in excess of permitted percentages shall not be landed and returned immediately to the sea ([290]).

The purpose of this calculation is to establish whether the actual live weight as established by weighing varies by more than 10 % of the estimated weight as recorded in the fishing logbook. The difference in weight between the estimated (logbook) weight and the actual weight is divided by the estimated weight and the result multiplied by 100.

Example 4 — *120 boxes of gutted cod with an average box weight of 42 kg*

Product	Gutted fresh cod
Actual live weight	589.68 kg
Estimated live weight (logbook)	420 kg
Difference	+ 169.68 kg
Difference as a percentage	169.68/420 × 100 = 40.2 % Fail > 10 %

Example 5 — *Calculating mixed species*

Estimated live weight	Permitted tolerance 10 %	Actual live weight	Weight difference	% Difference
Cod (*Gadus morhua*) 2 500 kg	250 kg	2 650 kg	+ 150 kg OK	6 %
Saithe (*Pollachious virens*) 4 500 kg	450 kg	5 750 kg	+ 1 250 kg Fail	27 %
Plaice (*Pleuronectes platessa*) 250 kg	25 kg	270 kg	+ 20 kg OK	8 %

(e) Calculate the live weight of any prohibited species and express as a percentage of the total weight of all species retained on board

Example 7 — *120 boxes containing 42 kg of gutted cod for which the vessel has no quota. Total catch on board 1 850 kg live weight.*

Product	Gutted fresh cod
Total live weight	1 850 kg
Live weight of prohibited cod	589.68 kg
Percentage of prohibited cod	589.68/1850 × 100 = 31.88 %

([290]) Articles 1 (8), 2(3) and 3(4) of Regulation No 2015/812.

Annex I

Table 1 — *Example of ullage table (partial)*

ULLAGE METRES	Measure from hatch coaming top forward end								
	AFT TANKS			FWD CENTRE TANKS			FORWARD TANKS		
	PORT	CENTRE	STBD	PORT	CENTRE	STBD	PORT	CENTRE	STBD
0.00	200.25	227.24	200.25	131.07	157.08	131.59	140.99	249.32	140.69
0.10	200.25	227.34	200.25	131.07	157.08	131.59	140.76	249.32	140.49
0.20	199.97	227.34	199.77	131.07	157.08	131.59	140.45	248.80	140.14
0.30	199.72	226.88	199.36	130.83	156.89	131.31	140.10	248.46	139.88
0.40	198.58	226.30	198.38	130.59	156.65	130.96	139.74	248.07	139.55
0.50	196.61	224.68	196.64	130.23	156.29	130.54	139.31	247.41	139.13
0.60	194.67	221.94	194.67	129.86	155.92	130.11	138.56	245.98	138.42
0.70	192.67	218.80	192.70	129.46	155.55	129.69	137.54	243.87	137.47
0.80	190.70	215.67	190.73	129.12	155.20	129.27	136.14	240.98	136.12
0.90	188.76	212.55	188.76	128.75	154.76	128.85	134.55	237.63	134.54
1.00	186.75	209.42	186.79	128.33	154.30	128.35	132.85	234.04	132.84
1.10	184.74	206.30	184.81	127.68	153.22	127.68	131.15	230.46	131.14
1.20	182.81	203.17	182.84	126.91	152.00	126.91	129.45	226.87	129.44
1.30	180.84	200.04	180.87	126.14	150.77	126.14	127.75	223.28	127.74
1.40	178.87	196.92	178.90	125.37	149.55	125.37	126.05	219.69	126.05
1.50	176.90	193.79	176.93	124.59	148.33	124.59	124.36	216.10	124.35
1.60	174.93	190.67	174.96	123.82	147.10	123.82	122.66	212.51	122.65
1.70	172.99	187.54	172.99	123.05	145.88	123.05	120.96	208.92	120.95
1.80	170.99	184.41	171.02	122.28	144.66	122.28	119.26	205.34	119.25
1.90	169.02	181.29	169.05	121.51	143.38	121.51	117.56	201.75	117.55

Appendix 1: Bibliography

Appendix 2: Links and references

Appendix 3: Legislation

- Council Regulation (EC) No 850/1998 of 30 March 1998 for the conservation of fishery resources through technical measures for the protection of juveniles of marine organisms (OJ L 125, 27.4,1998, p. 1).
- Council Regulation (EC) No 1936/2001 of 27 September 2001 laying down control measures applicable to fishing for certain stocks of highly migratory fish (OJ L 263, 3.10.2001, p.1).
- Council Regulation (EC) No 1967/2006 of 21 December 2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea (OJ L 36, 8.2.2007, p. 6).
- Council Regulation (EC) No 520/2007 of 7 May 2007 laying down technical measures for the conservation of certain stocks of highly migratory species.
- Council Regulation (EC) No 1005/2008 of 29 September 2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated.
- Commission Regulation (EC) No 1010/2009 of 22 October 2009 laying down detailed rules for the implementation of Council Regulation (EC) No 1005/2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing.
- Council Regulation (EC) No 1224/2009 of 20 November 2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy (CFP) (OJ L 343, 22.12.2009, p. 1).
- Regulation (EU) No 640/2010 of the European Parliament and of the Council of 7 July 2010 establishing a catch document for bluefin tuna.
- Commission Implementing Regulation (EU) No 404/2011 of 8 April 2011 laying down detailed rules for the implementation of Council Regulation (EC) No 1224/2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy (CFP) (OJ L 112, 30.4.2011, p. 1).
- Regulation (EU) No 227/2013 of the European Parliament and of the Council of 13 March 2013 amending Council Regulation (EC) No 850/98 and Council Regulation (EC) No 1434/98.
- Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) N0 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC
- Regulation (EU) 2015/812 of the European Parliament and of the Council of 20 May 2015 amending Council Regulations (EC) No 850/98, (EC) No 2187/2005, (EC) No 254/2002, (EC) No 2347/2002 and (EC) No 1224/2009, and Regulations (EU) No 1379/2013 and (EU) No 1380/2013 of the European Parliament and of the Council as regards the landing obligation and repealing Council Regulation (EC) No 1434/98
- Regulation (EU) 2016/1627 of the European Parliament and of the Council of 14 September 2016 on a multiannual recovery plan for bluefin tuna in the eastern Atlantic and the Mediterranean, and repealing Council Regulation (EC) No 302/2009

Module 4 Inspect conformity of gear

Section 4.1 Identify and examine gear in use and any other on board

Coverage: EU ports, all vessels

1. Objectives:

This module will lead the trainee through the processes involved in identifying the type of fishing gear in use or on board and establishing the legality of the gear.

The module will assist the trainee to complete points 61 - 67 of the minimum information required for the completion of inspection reports ([291]).

2. Overview

The conservation of fish stocks is a key element of the common fisheries policy (CFP); there is a complex and varied set of regulations governing the use of fishing gear and stipulating the dimensions of the gear in relation to the mesh size, the twine thickness and the geometry of the gear. The overall purpose of these regulations is to ensure that the capture of both juvenile and unwanted fish is minimised as far as is practicable.

The geometry of the gear can influence both the size of fish retained and, to some extent, the species retained.

In some fisheries, the amount of gear which can be used is restricted, in order to limit the effort on these fisheries.

Some gears must be marked, in order to identify the vessel using the gear.

This section will lead the trainee through the processes involved in identifying the type of fishing gear on board and recording the relevant parameters by which the legality of the gear may subsequently be established.

3. Entry requirements

This section does not require any previous knowledge of fishing gear or gear technology.

([291]) Article 115 and points 61-67 of Module 3 of Annex XXVII of Commission Implementing Regulation No 404/2011.

Chapter 4.1.1 — Confirm with the master the gear used during the fishing voyage

Part A. Introduction

The use of certain types of fishing gear is strictly controlled by EU legislation which stipulates the manner in which such gear may be deployed and the technical parameters of the gear. Therefore, a fishery inspector must first be able to identify the type of fishing gear being used or carried on board, before being able to check whether the gear complies with the criteria laid down.

The inspection of fishing gear during a landing inspection can pose particular problems for the inspector, as the gear which has been used (or which the master claims has been used) may not be on board. Active gear may have been lost during the voyage and static gear may have been left at sea to carry on fishing. It is therefore very important that the inspector confirms with the master of the vessel whether the gear which has been used during the voyage is actually on board. If the master claims that the gear is not on board, then the inspector should assume that the gear which has been used is that entered in the logbook, unless he has evidence to the contrary.

If the inspector accepts that the gear used is not on board, he may still inspect any gear aboard to ensure that it is not a prohibited gear. The inspector should be aware that either the carriage or the use of a specific gear may be prohibited, depending on the fishery and he will need to be aware of these different conditions before deciding on the legality or otherwise of any gear found on board.

Part B. Concepts and definitions ([292]):

The following definitions will assist the inspector in identifying any gear aboard:

(a) **Gear condition:**

- **'**gear in use' is the gear which has been used during the current voyage; this will be the gear that will be the primary priority of the gear inspection.
- 'gear stowed and lashed' is fishing gear which is not currently being used and has been stowed in an approved manner, so that it cannot be readily used. The criteria for stowage vary between different geographical regions.

NB The following list of descriptions of fishing gear is not exhaustive; it is intended only to address those types of gear whose use is regulated by EU legislation and therefore should be identifiable by a fishery inspector. The FAO alphanumeric codes for each gear are listed in Annex 1.

(b) **Surrounding nets:**

- Surrounding nets with purse lines (purse seines)

These nets catch fish by surrounding them from the sides and underneath. They are normally surface nets, with the headline supported by numerous floats. The net is characterised by the use of a purse line at the bottom of the net, enabling the net to be closed like a purse, thus retaining all the fish within the encircling net. These nets, which may be very large, are usually operated by one vessel, with or without an auxiliary skiff. Figure 19 shows the method of deployment of a purse seine.

([292]) The definitions and illustrations of fishing gear have been taken in part from: Nédélec, C., Prado, J., *Definition and classification of fishing gear categories*, FAO Fisheries Technical Paper No 222. Revision 1, Rome, FAO, 1990, 92 pp.

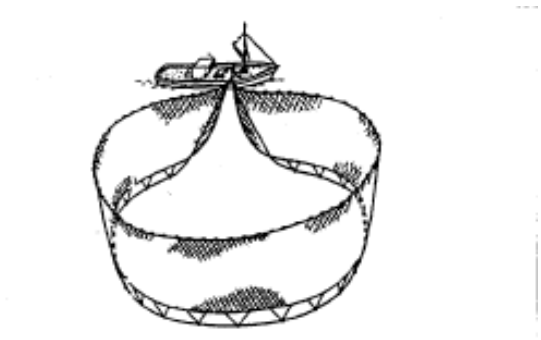


Figure 19 — *Deployment of purse seine*

- Surrounding nets without purse lines (lampara or ring nets)

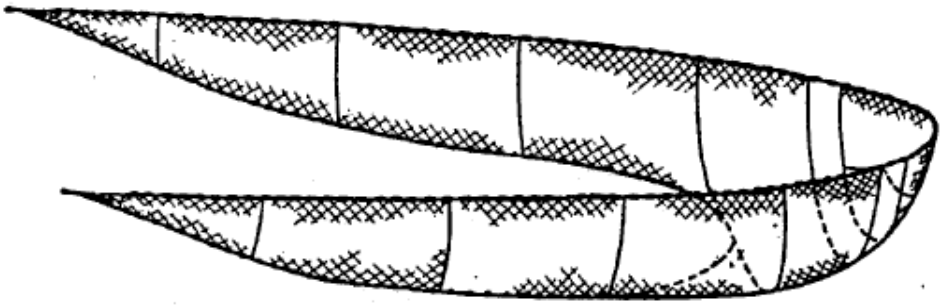


Figure 20 — *Lampara*

The lampara net is the most typical of this category. Its design, with the central bunt in the form of a spoon and two lateral wings, makes it possible to retain a shoal of fish when the two wings are hauled up at the same time. The ring net type is shaped more like a purse seine and is often fitted with bridles to help pull in the leadline (footrope).

These nets are generally operated by relatively small vessels.

(c) Seine nets

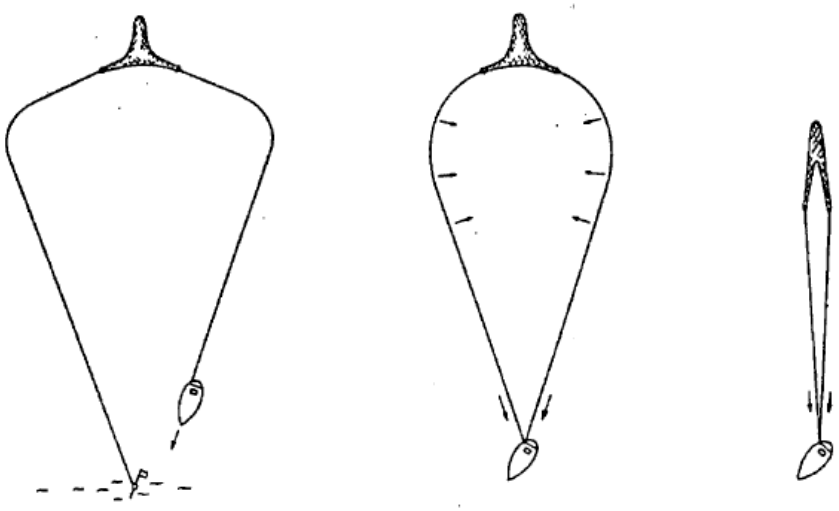


Figure 21 — *Operation of boat seine*

A boat seine net is similar in construction to a trawl net, but with longer wings. The net is connected on either side to a set of very long ropes, which are set on the sea bed and then retrieved as shown in Figure 21. The speed of retrieval is gradually increased during the operation. The fish are herded between the ropes and subsequently collected in the net. This category has two methods of operation:

- Danish seines (anchor seines)

When using the Danish seine method, the vessel is prevented from being dragged backwards during the hauling operation by being anchored.

- Scottish seines (fly-dragging)

When using the Scottish seine method, the vessel is prevented from being dragged backwards during the hauling operation by going ahead on the main propulsion system.

(d) **Trawl nets:**

- Overview

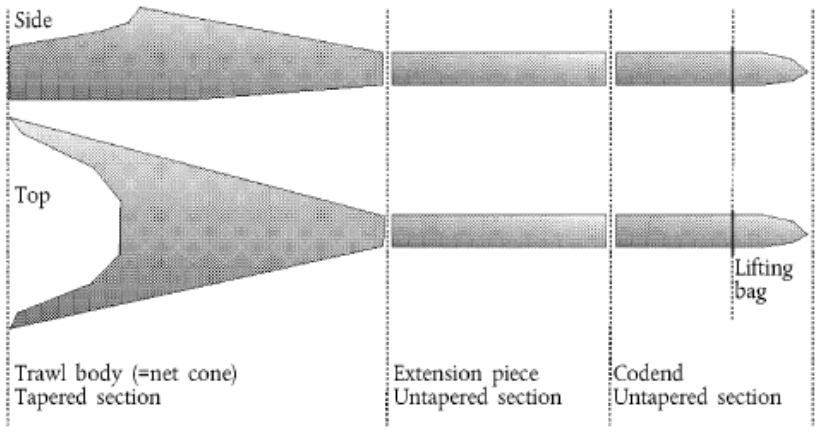


Figure 22 — *Typical trawl construction*

Trawls are towed nets consisting of a cone-shaped body which terminates in a closed bag (cod-end) which collects the fish. The front opening (mouth) can be kept open, both vertically and horizontally by a variety of means, depending on the type of trawl. Bottom trawls are towed along the sea bed to catch demersal (bottom-dwelling) species; midwater trawls are towed anywhere between just off the seabed and the surface to catch pelagic species.

- Beam trawls

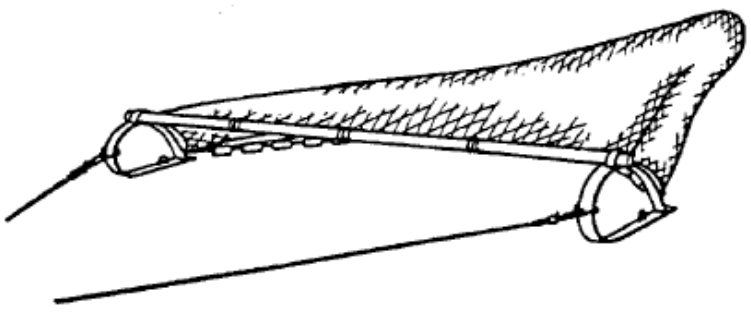


Figure 23 — *Beam trawl*

In these trawls, the opening is maintained by a beam made of wood or, more commonly, metal. These trawls can be very heavy, due to the associated ground gear. There are two common types of beam trawl, referred to as 'open gear' and 'chain mat gear'. Open gear is a lighter rig with several tickler chains. These ticklers help to disturb the fish from the muddy seabed. This rig is used on clean soft ground. The chain mat or stone mat gear is used for towing over rockier areas of seabed. In this rig there is a latticework of chains in the mouth of the trawl. Some beam trawls are also fitted with 'flip up ropes' to prevent stones from entering the net and damaging it. A recent development in beam trawling is the sum wing trawl, where the beam skims above the bottom on hydrostatic lift, and electric pulses (by derogation) ([293]) in the gear are used to disturb the fish from the seabed. These features of beam trawls are shown in Figures 24–27.

Beam trawls are used to catch mostly shrimps and flatfish, and are normally towed off derricks, one on either side of the vessel.

Figure 24 — *Open gear*

Figure 25 — *Chain mat or stone mat gear*

Figure 26 — *Flip up ropes*

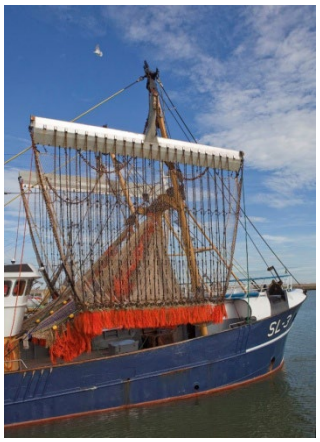


Figure 27 — *Sum wing beam*

- Bottom otter trawls (include multiple rigs)

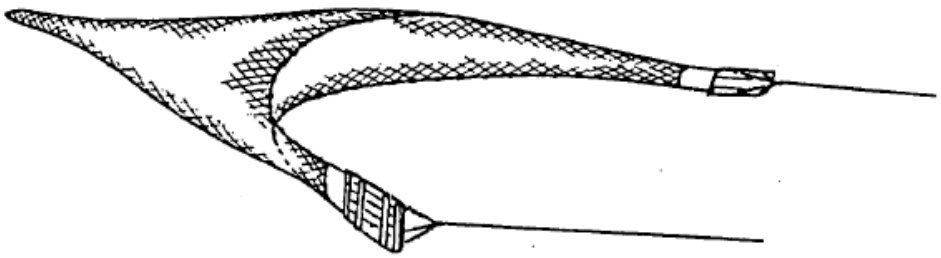


Figure 28 — *Single otter trawl*

([293]) Article 31(a) of Council Regulation (EC) No 850/98.

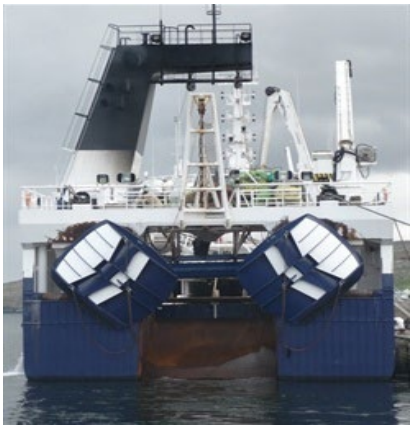


Figure 29 — *Trawl doors*

These trawls are towed along the sea bed by a single vessel; the horizontal opening is maintained by otter boards (Figure 28) which spread the net by a combination of hydrodynamic and ground forces. The vertical opening is maintained by floats and sometimes kites.

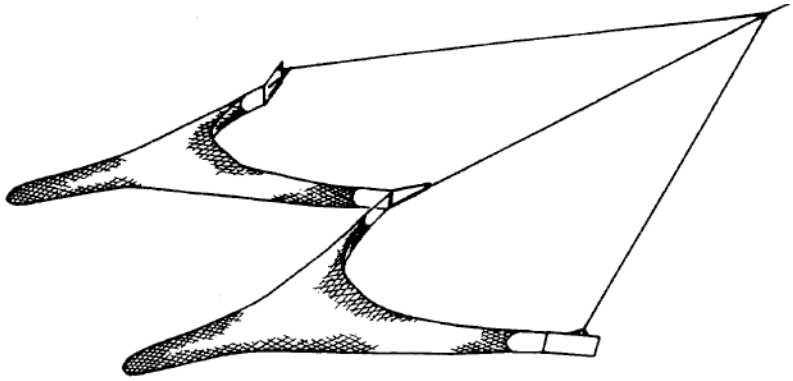


Figure 30 — *Twin trawls*

More than one otter trawl may be towed simultaneously by a single vessel. Normally two trawls are towed (twin-rig), but recently three trawls have also become common. The inner wings are normally attached to a heavy weight or sledge. In certain fisheries, notably for shrimp and flatfish, otter trawls (either single or twin) may be towed from a derrick on either side of the vessel.

- Bottom pair trawls

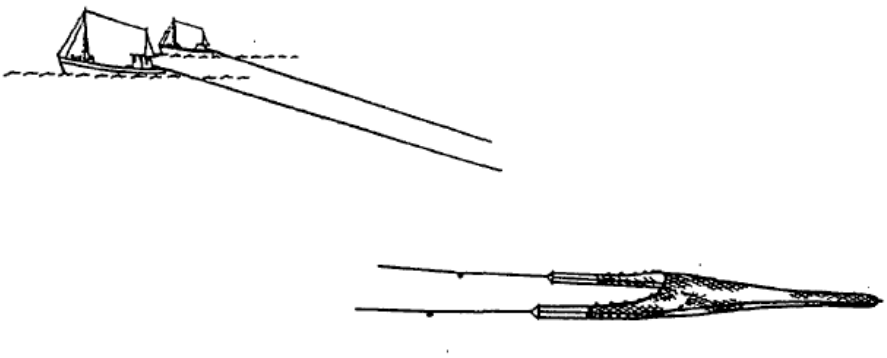


Figure 31 — *Bottom pair trawl*

These trawls are towed by two vessels at the same time, the horizontal opening being maintained by the distance between the two vessels. These nets can be very large with high vertical openings and are used to target species which tend to rise off the sea bed, such as roundfish.

- Midwater otter trawls

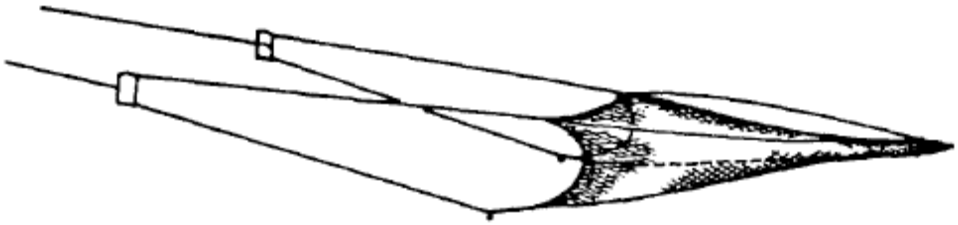


Figure 32 — *Midwater otter trawl*

These trawls are usually much larger than bottom trawls. The front net sections are often made with very large meshes or ropes, to reduce water resistance, which herd the shoals towards the rear of the net. The horizontal opening is controlled by otter boards, usually of a hydrodynamic shape, which normally do not touch the sea bed. The depth is controlled by the warp length, vessel speed and wing-end weights.

- Midwater pair trawls

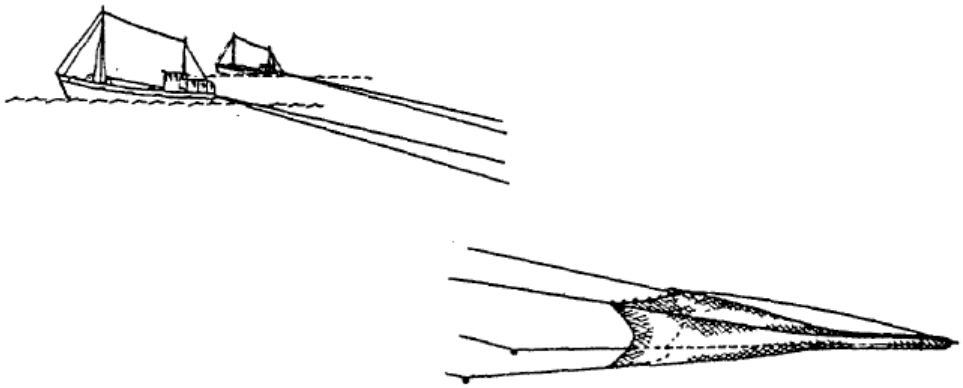


Figure 33 — *Midwater pair trawl*

These trawls are towed by two vessels at the same time, the horizontal opening being maintained by the distance between the two vessels. Otherwise, their characteristics are the same as for midwater otter trawls.

(e) **Dredges**

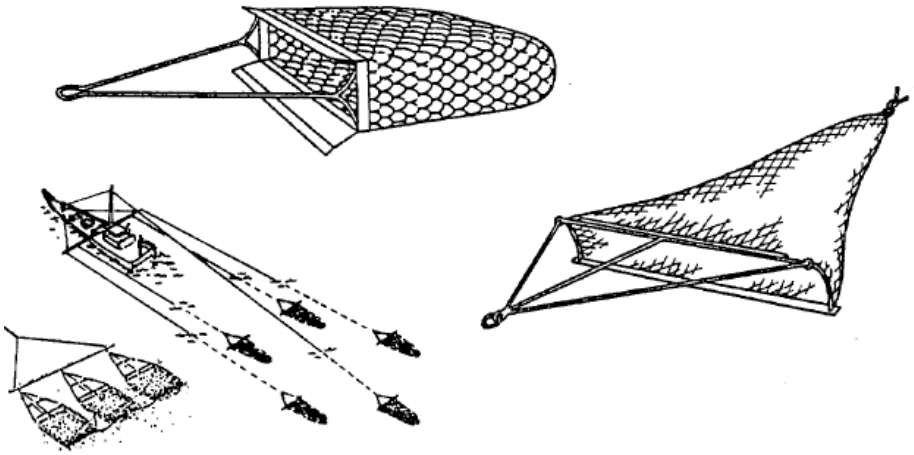


Figure 34 — *Dredges*

These are typically a heavy metal framework, equipped with either a blade or tooth bar, which is dragged along the sea bed to dig out molluscs such as mussels, oysters, scallops and clams. The shellfish are collected in a bag, often made of steel rings, which allows the mud and sand to be sieved out.

(f) **Gillnets and entangling nets**

- Overview

In this type of gear, fish are gilled, entangled or enmeshed in the netting, which may be either single wall (gillnets) or multiple wall (trammel nets). These nets can be used alone or, as is more usual, in large numbers connected in line, normally called a 'fleet'.

According to their design, ballasting and buoyancy, these nets may be used to fish on the surface, in midwater or on the sea bed.

- Set gillnets (anchored)

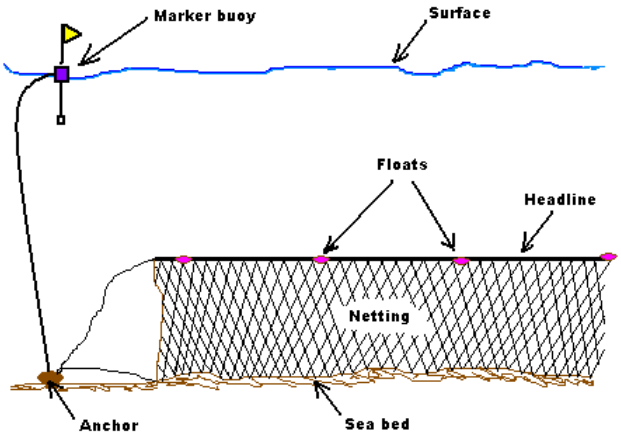


Figure 35 — *Bottom-set gillnet*

These are nets made up of a single piece of netting held vertically in the water by floats and weights fixed or capable of being fixed by any means to the sea bed.

- Drifting gillnets (driftnets)

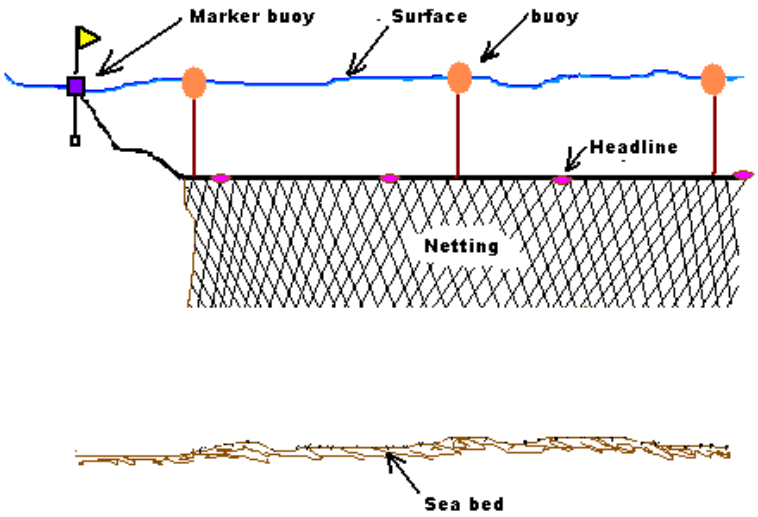


Figure 36 — *Driftnet*

These are nets made up of a single piece of netting suspended vertically in the water above the sea bed by means of floats or buoys. The net is not fixed to the sea bed and is free to drift under the influence of wind or tide.

- Trammel nets

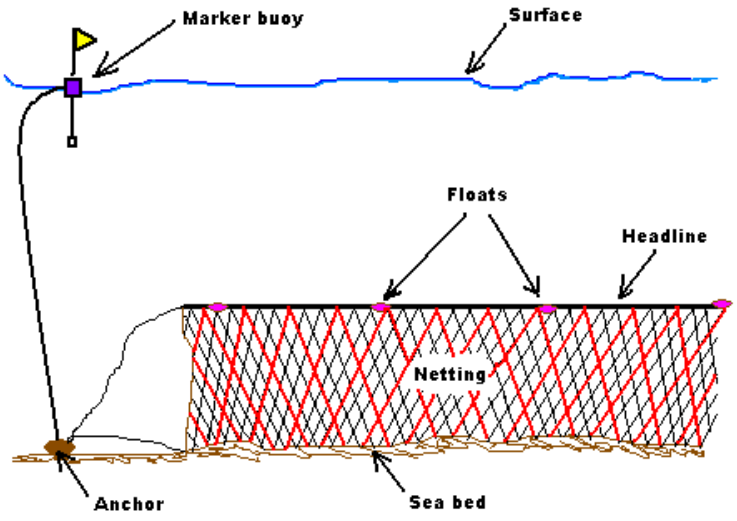


Figure 37 — *Trammel net (outer wall in red)*

These are nets made up of two or more pieces of netting hung jointly in parallel in the water. The 'inner' wall of netting is of a smaller mesh than the 'outer' wall(s); the fish is caught primarily by being trapped in a bag of smaller netting formed by the fish passing through a larger mesh of outer netting. These nets are normally, but not always, anchored to the sea bed.

- Combined gillnets and trammel nets

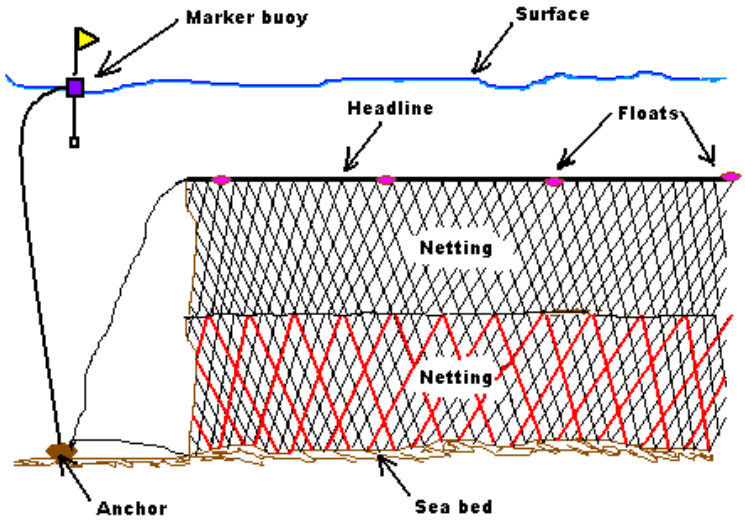


Figure 38 — *Combined bottom-set net*

A combined bottom-set net is any bottom-set gillnet combined with a trammel net which constitutes the lower part.

(g) Traps

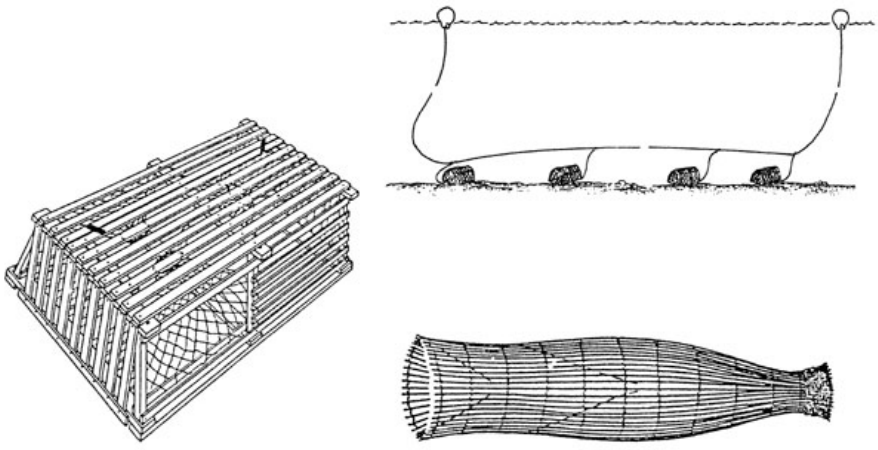


Figure 39 — *Traps*

Traps are fishing gear which is fixed to or deployed on the bottom and which acts as a trap to catch marine species. They are constructed in the form of a basket, pot, barrel or cage, and in the majority of cases they comprise a rigid or semi-rigid frame made of various materials (wood, wicker, metal rods, wire netting, etc.) that may or may not be covered with netting. They have one or more funnels or mouths with smooth ends that allow species to enter the internal chamber. They may be used separately or in groups. When used in groups, a main line carries numerous traps on branch lines of variable length and spacing depending on the target species.

(h) **Hooks and lines**

- Longlines

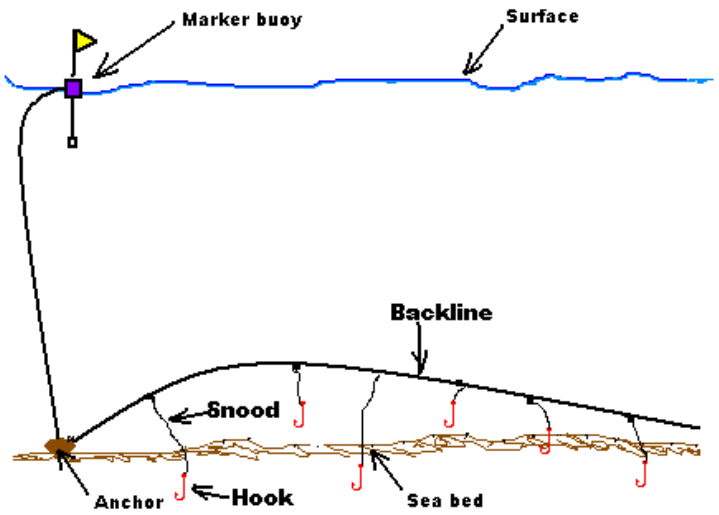


Figure 40 — *Bottom-set longline*

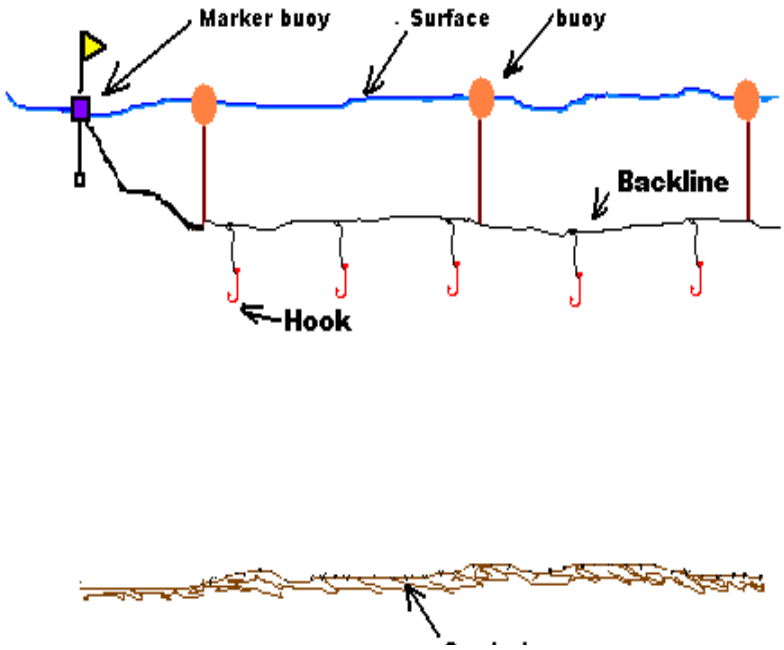


Figure 41 — *Surface longline*

A longline is a fishing gear which comprises a main line carrying numerous hooks on branch lines of varying length and spacing, depending on the target species. It may be deployed either vertically or horizontally to the sea surface; it may be set either at or near the bottom (bottom-set longline) or drifting in midwater or near the surface (surface longline).

Part C. Data and information sources

The FAO alphanumeric codes for each gear are listed in Annex 1.

Part D. Methodology

The inspector should examine the gear to the extent required to identify the type of gear in use or stowed and record his findings as FAO alphanumeric codes for each gear identified. The inspector should confirm with the master the gear used during the voyage, taking into account any gear identified as being aboard, the gear recorded in the logbook and any observations made by the master.

The type of gear found on board (if any) will allow the inspector to decide on the appropriate course of action to take, insofar as what parameters of the gear will need to be ascertained.

Chapter 4.1.2 — Determine the gear measurement

Part A. Introduction

In order to understand the correct use of the mesh size and twine thickness gauges, it is necessary to have a basic knowledge of net construction and the terminology used to describe various features of the netting.

Part B. Concepts and definitions

(a) Active gear

For the purposes of net measurement, 'active gear' means any fishing gear for which the catch operation requires an active movement of the gear ([294]). This would include: trawls, seines and encircling nets. This class of gears (with the exception of encircling nets) is often referred to as 'towed gear'.

(b) Passive gear

For the purposes of net measurement, 'passive gear' means any fishing gear for which the catch operation does not require an active movement of the gear ([295]). This would include: gill nets, entangling nets and trammel nets. This class of gears (along with pots, traps and longlines) is often referred to as 'static gear'.

(c) Net construction:

- Construction (knotted netting)

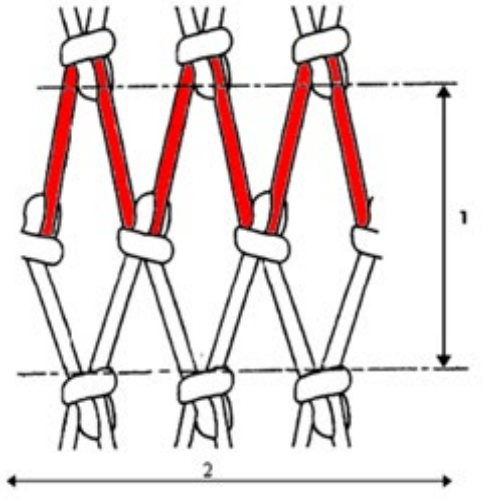


Figure 42 — *Knotted mesh*

Nearly all knotted netting is machine-made, an example is shown in Figure 42; the knot used in the construction is a sheet bend. The mesh size, for control purposes, is the internal length of the mesh, as indicated by arrow number two. The netting is produced from the machine in the direction indicated by arrow number 2. This is the T-direction of the net. The twine coloured red in the diagram is called a row and consists of a continuous length of twine. The dimension of each row is set by the parameters of the machine and remains fairly constant throughout the sheet of netting. There can be, however,

([294]) Article 2(b) of Commission Regulation (EC) No 517/2008.

([295]) Article 2(c) of Commission Regulation (EC) No 517/2008.

significant differences in size between different rows in the same sheet of netting, due to mechanical features of the net-making machine.

- Construction (knotless netting)

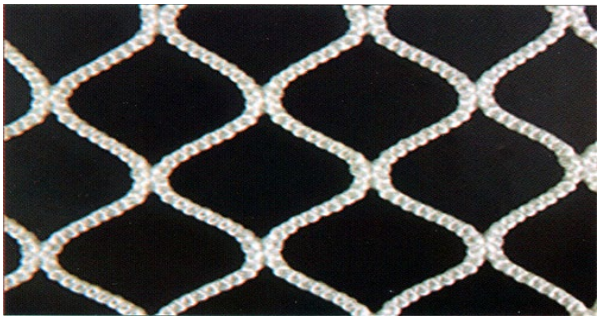


Figure 43 — *Knotless mesh*

In knotless netting, which is all machine-made, the net is constructed by interweaving the twines where there would normally be a knot; an example is shown in Figure 43. In such netting, the T-direction is not always discernible.

- Longitudinal axis of towed gears

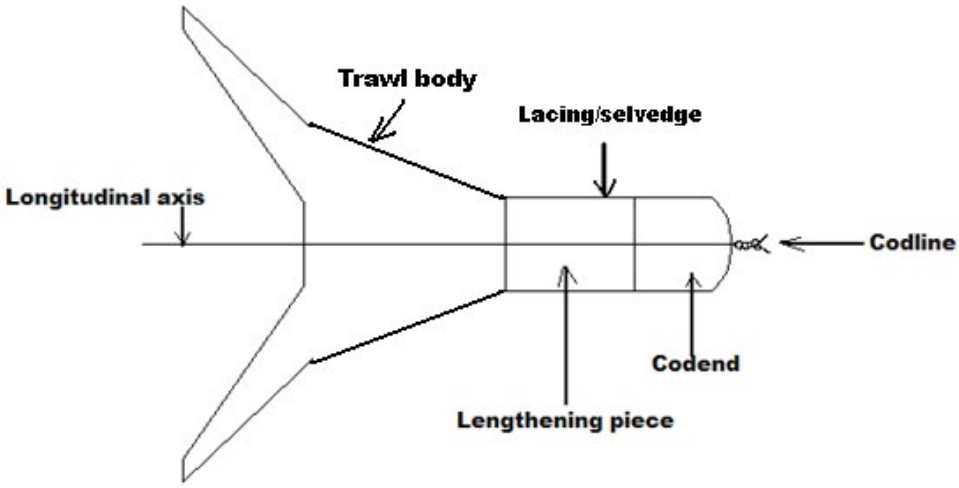


Figure 44 — *General trawl layout*

For towed gears, the longitudinal axis of the net is an axis running from the mouth of the net to the cod-end, as indicated in Figure 44.

- N-direction

Knotted netting bears strain best in the direction indicated by arrow number 1 in Figure 42. This is known as the N-direction and is at right-angles to the T-direction. The net is able to stand much greater strain in the N-direction than in the T-direction, without the knots slipping or 'capsizing'. Because of this, most towed nets are constructed with the N-direction of the component netting aligned with the longitudinal axis of the gear.

- T-90 mesh

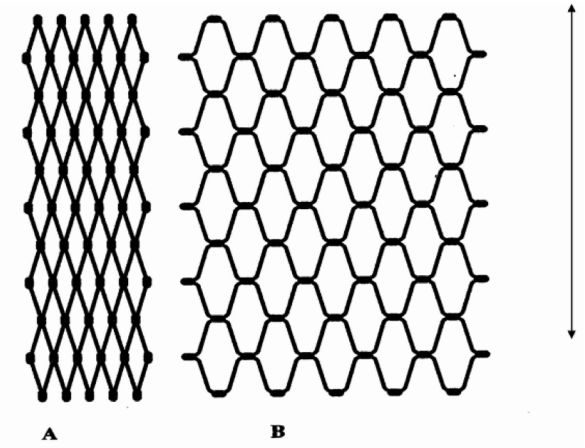


Figure 45 — *Diamond and T-90 mesh*

In Figure 45, (A) shows conventional diamond mesh knotted netting, with the N-direction of the net in the same direction as the longitudinal axis of the gear, which is indicated by the arrow on the right. (B) shows netting which has been turned 90 degrees to the longitudinal axis of the gear. This is known as T-90 mesh.

- Bar

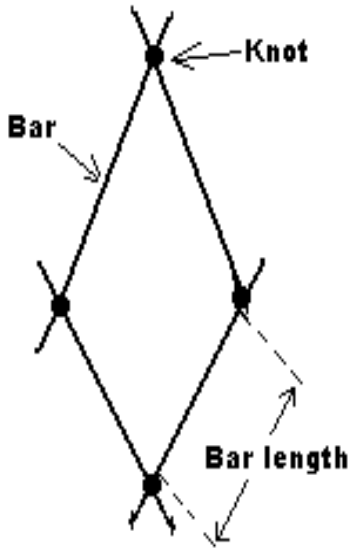


Figure 46 — *Bar length*

A bar is the section of twine between two adjacent knots, as shown in Figure 46.

- Square mesh

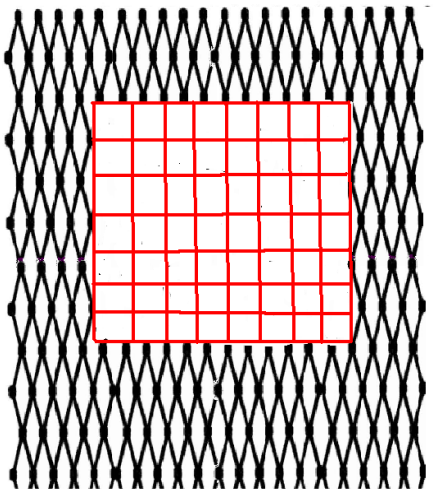


Figure 47 — *Square mesh*

Square mesh is diamond netting which has been rotated by 45 degrees in relation to the longitudinal axis of the gear; in this configuration, the bars run parallel and at right angles to the longitudinal axis of the gear ([296]). Figure 47 shows a section of square mesh, marked in red.

- Materials

Most modern netting is made of synthetic materials, mainly polypropylene, polyethylene and nylon.

- Twine construction

Twine can be constructed in the following ways, depending on the intended usage of the netting:

— Twisted, where the strands are twisted around each other in a variety of configurations, used mostly for light towed gear and static gear;
— Braided, where the strands are braided to form a sheath around an inner core, used exclusively for towed gear;
— Monofilament, consisting of a single strand of transparent nylon, used exclusively in static gear;
— Multi-monofilament, consisting of multiple strands of transparent nylon twisted together, used exclusively in static gear.

- Single/double twine

Figure 48 — *Double twine netting*

([296]) Article 1(e) of Council Regulation (EC) No 2187/2005, Article 3(d) of Council Regulation (EC) 850/98, Article 11, Annex I(c) and Annex (B)(3) of Council Regulation (EC) No 1967/2006.

In some situations, where the netting is subjected to high stresses or abrasions, netting made of multiple twines may be used. In practice they are nearly always composed of two sets of braided twine in knotted netting and are used exclusively in towed gears, as shown in Figure 48.

- Lacing/selvedge

Figure 49 — *Longitudinal lacing/selvedge*

A lacing or selvedge is normally where the sides of the upper and lower panels of a towed net are joined together in the direction of the longitudinal axis of the gear. This is generally done by gathering and sewing together three or four meshes of each panel to form a rope-like reinforcement at the joining edge, as shown in orange twine in Figure 49 above. Occasionally, lacing can also be taken to mean where the front and rear edges of a panel of net are sewn together, as shown by the row of orange twine in Figure 50 below.

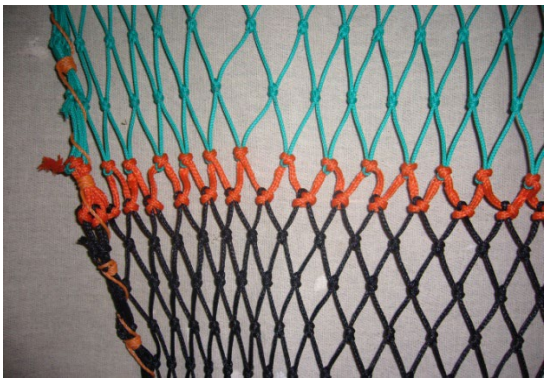


Figure 50 — *Transverse lacing*

- Prohibition of meshes other than diamond or square

Under current EU legislation ([297]), it is prohibited to use meshes which are not constructed with four sides. In practice, this prohibits the use of six-sided netting, which is available for certain non-fishing-related uses.

- Mesh size

The mesh size of a mesh is the distance between the inside extremities of the opening of the mesh, as indicated by arrow 1 in Figure 42; this distance has to be measured under certain pre-defined conditions. The precise determination and methodology will be dealt with later in the section.

([297]) Article 9 of Council Regulation (EC) No 850/98, Article 6(c) of Council Regulation (EC) No 2187/2005, Article 11(2) and Annex I (B) 5 of Council Regulation (EC) No 1967/2006.

As already explained in 'Net construction' above, the different bars in a row of netting are likely to be of the same length, it is therefore evident that a series of meshes consisting of two rows (i.e. running in the T-direction) is more likely to be of a consistent size than a series of meshes running in the N-direction. In order to measure obtain an average mesh size across the whole of the netting; the series to be measured must be taken in the N-direction. The requirements of the relevant regulation ([298]) set out to achieve this.

- Twine thickness

Twine thickness is the assessed diameter of the twine under certain pre-defined conditions. The precise assessment and methodology will be dealt with later in the section.

- Condition of netting

Certain factors can influence either mesh size or twine thickness, the two main parameters of the netting. The two most important factors are:

— Water uptake

As the netting is used underwater, there is a significant uptake of water into the netting material, which can affect the mesh size and twine thickness. This factor is, however, much more pronounced in natural materials (cotton, hemp sisal) which swell when wetted. Nearly all modern-day netting is made from synthetic materials, upon which the effect of water is greatly reduced.

— Detritus ingress

The ingress of detritus into the twine of the netting can greatly affect the mesh size and twine thickness. The detritus is generally composed of sand or mud from the seabed which permeates the netting twine as it is being towed along. This effect is seen mostly in demersal towed gears and the effect is much more pronounced on netting made of braided twine, due to its construction. The detritus enters the outer braided sheath of the twine and forces the sheath outwards. This has the effect of increasing the twine thickness and at the same time shortening the twine and thereby decreasing the mesh size.

Part C. Data and information sources

The logbook will contain a declaration by the master of the mesh size in use; there will be no indication of the twine thickness.

A detailed technical specification for the electronic mesh gauge is given in the relevant legislation ([299]) and is reproduced in Annex 2.

A detailed technical specification for the twine thickness gauge is given in the relevant legislation ([300]) and is reproduced in Annex 3.

Part D. Methodology 1: Determination of mesh size

(a) The electronic mesh gauge

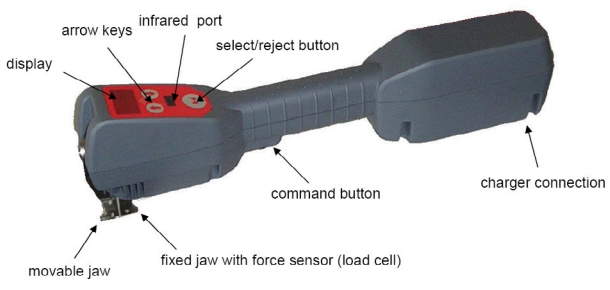


Figure 51 — *The electronic mesh gauge*

([298]) Commission Regulation (EC) No 517/2008.

([299]) Article 3(2) and Annex III of Commission Regulation (EC) No 517/2008.

([300]) Article 3(3) and Annex IV of Commission Regulation (EC) No 517/2008.

- Introduction

The electronic mesh gauge was introduced in 2009, in order to harmonise procedures for the determination of mesh size. Due to the nature of the flexibility of fibre ropes, it is difficult to unambiguously determine the size of a mesh. The best way to determine the mesh size is to take an average of several measurements, applying a standardised measuring force. The electronic mesh gauge achieves this standardisation by applying a pre-determined longitudinal force to the mesh, which is the same for all EU gauges for a given range of mesh size. In this way, the results of determination are harmonised throughout the Union.

Current legislation requires that the electronic mesh gauge is used when determining the mesh size ([301]).

This determined mesh size then becomes the figure used to check whether the net is in compliance with the regulations.

- Certification of the gauge

The mesh gauge shall be certified by the manufacturer as complying with the technical specification ([302]).

- Marking of the gauge

Any gauge used by Union or national inspectors for control purposes shall be marked 'EC gauge' ([303]).

- Calibration

The electronic mesh gauge shall be calibrated periodically in accordance with national requirements, by an authorised calibration institute.

- Calibration instruments

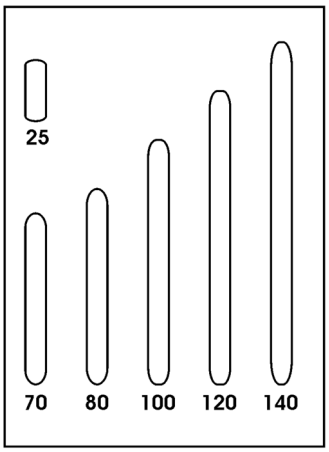


Figure 52 — *Calibration plate*

The test weights used for calibration shall be of 10, 20, 50 and 125 Newtons ([304]). These weights shall be certified by the competent national authority and marked 'EC' ([305]).

The verification of length measurement shall be done by using a rigid test plate as shown above ([306]). The test plate shall be certified by the competent national authority and marked 'EC' ([307]).

([301]) Article 3(1) of Commission Regulation (EC) No 517/2008.

([302]) Article 3(4) of Commission Regulation (EC) No 517/2008.

([303]) Article 3(1) and 3(4) of Commission Regulation (EC) No 517/2008.

([304]) Article 4 and Annex V(B) of Commission Regulation (EC) No 517/2008.

([305]) Article 4 of Commission Regulation (EC) No 517/2008.

([306]) Article 4 and Annex V(A) of Commission Regulation (EC) No 517/2008.

([307]) Article 4 of Commission Regulation (EC) No 517/2008.

- Testing of the gauge:

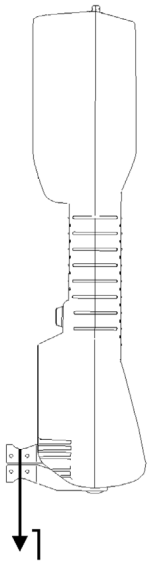


Figure 53 — *Force testing*

  - — Testing the accuracy of the length measurement is achieved by inserting the jaws of the gauge into slots of the calibrated test plate ([308]), operating the gauge and noting the result and the size of the hole in the test plate. Best practice would be to carry out this procedure before measuring the net.
  - — Testing the accuracy of the force measurement is achieved by hanging test weights on the fixed jaw ([309]). The force is shown on the display of the gauge. The gauge must be held vertical and secure and the weights can only be used under stable conditions ([310]). This requirement means that all such testing must be done ashore. In addition, a test stand is available from the gauge manufacturers to hold the gauge vertical.
  - — No frequency is laid down in the legislation for either of these tests; best practice would be to do them as frequently as is physically practicable.

- The buttons

The gauge has four buttons which are used by the operator to control the functions and operation of the gauge, as follows:

  - — the COMMAND button, located on the underside of the gauge,
  - — the ARROW (▲and▼) keys, located on the top of the gauge, just below the display,
  - — the SELECT/REJECT (►◄) button, located below the ARROW keys.

- Setting up the gauge:
  - — Fitting the correct jaws

Three sets of jaws are supplied with the gauge, to be used with different mesh size ranges as follows: small, for mesh sizes 10 to 70 mm; Normal, for mesh sizes 40 to 200 mm; Extended, for mesh sizes 140 to 300 mm. It is advisable to fit the correct jaws before switching on the gauge. Normally, the entry in the logbook of the mesh size of the gear in use should be used to determine which jaws to use.

([308]) Article 5(a) of Commission Regulation (EC) No 517/2008.

([309]) Article 5(b) of Commission Regulation (EC) No 517/2008.

([310]) Article 5 and Annex V(B) of Commission Regulation (EC) No 517/2008.

Figure 54 — *Types of jaws*

NB: The gauge will need to be set with the correct jaw size after the initial switching on.

— Switching on the gauge:

- Press the COMMAND button for one second, until the display shows 'OMEGA GAUGE'. The gauge will perform some initial tests of the electronics. When these tests are completed, the gauge will display 'Press SELECTCOMMAND to start tests'. Press SELECT, followed by COMMAND (within 1 second), the gauge will start the tests on the mechanical parts. To do so, the gauge will open the jaws to maximum position and then close them to minimum position; the jaws should not be touched during this test.
- If a test fails, an error message will be displayed. If the detected error affects the accuracy of the gauge, the gauge will shut down. This makes it impossible to carry out measurements with a malfunctioning gauge. If an error message is displayed, the manufacturer's manual should be consulted.
- When all tests are passed, the display will show 'System ok'.

— Accessing the menu
The menu can be accessed either before the self-test is started or after the self-test and after a force has been selected. The menu is entered by pressing one of the arrow keys and can be scrolled through by using the arrow keys. Pressing SELECT will give to access to the menu item shown on the display.

— Setting the correct force
Normally, on starting, the display will show 'CHOOSE FORCE'. Select the force with the arrow keys (▲ or ▼), then press SELECT (►◄) to accept the force. The correct forces for each mesh type are as follows:
The reference force to be used, is the force that relates to the mesh size of the gear in use, as declared by the master in the logbook.

Table 2 — *Force settings by mesh size*

GEAR TYPE	MESH SIZE	FORCE IN NEWTONS
ACTIVE	< 35 mm	20 N
	≥ 35 mm to < 55 mm	50 N
	≥ 55 mm	125 N
PASSIVE	All sizes	10 N

— Setting the correct jaws

To change the jaws setting, choose 'Jaws' in the menu, press SELECT, change the setting with the arrow keys, then press SELECT again to accept the new setting.

(b) **How to determine the mesh size**

- Introduction

  Once the gauge has been tested and the correct jaws and measuring force have been selected, it is ready to be used for the determination of the mesh size. The following methodology must be strictly adhered to when determining the mesh size ([311]):

- Selection of meshes in towed gears:
  - — Where in the net?
    A series of 20 consecutive meshes shall be chosen in the following direction:
    - for diamond and square meshes, in the direction of the longitudinal axis of the net ([312]);
    - for T90 meshes, perpendicular to the direction of the longitudinal axis of the net ([313]).
  - — Exceptions
    The 20 consecutive meshes should not include any of the following ([314]):
    - Any meshes less than three meshes from the selvedge, lacings, ropes or cod line. The distance shall be measured perpendicular to the lacings, ropes or cod line with the net stretched in the direction of that measurement;
    - Any meshes which are broken or have been repaired;
    - Any meshes which have attachments to the net fixed to them.
  - — Derogation
    Where it is not possible to choose 20 consecutive meshes to be measured, because of the constraints in the point above, then the meshes do not need to be consecutive ([315]). However, as far as is practicable, they should be spaced along the directions already described above.

- Selection of meshes in passive gear:
  - — Where in the net?
    A set of 20 meshes shall be chosen. In the case of different mesh sizes in the fishing net, the meshes shall be selected from the part of the fishing net having the smallest meshes ([316]).
    NB: For passive gear, there is no requirement for the meshes to be consecutive or to be chosen in any particular direction. However, best practice would be to choose the meshes in the N-direction of the netting, wherever practicable, to avoid possible legal challenges.
  - — Exceptions
    The 20 meshes should not include any of the following:
    - meshes at the top, bottom or side of a net selvedge ([317]);
    - meshes within three meshes of lacings and ropes ([318]);
    - meshes which have been broken or have been repaired ([319]).

- Identification of chosen meshes

Once the set of meshes has been chosen for measurement, it is highly advisable (although not mandatory) that the meshes are marked in some way. This could be by a small piece of twine or any other method which would allow the clear identification of the meshes which have been measured. This practice will greatly reduce the possibility of a legal challenge at a later date and will also facilitate the identification and continuity of any evidence which may be required. It is also good practice, as it demonstrates to the master of the vessel that the correct procedure has been followed when selecting the meshes to be measured.

([311]) Article 8 of Commission Regulation (EC) No 517/2008.

([312]) Article 6(1)(a) of Commission Regulation (EC) No 517/2008.

([313]) Article 6(1)(b) of Commission Regulation (EC) No 517/2008.

([314]) Article 6(2) of Commission Regulation (EC) No 517/2008.

([315]) Article 6(3) of Commission Regulation (EC) No 517/2008.

([316]) Article 7(1) of Commission Regulation (EC) No 517/2008.

([317]) Article 7(2)(a) of Commission Regulation (EC) No 517/2008.

([318]) Article 7(2)(b) of Commission Regulation (EC) No 517/2008.

([319]) Article 7(2)(c) of Commission Regulation (EC) No 517/2008.

- Condition of net

As discussed in Chapter 4.1.2, the condition of the net can influence the mesh size. Current EU legislation requires that the net shall be measured only when wet and unfrozen ([320]).

- Procedure for measuring:
  - — Diamond and T-90 meshes
    When measuring diamond and T-90 meshes in:
    - netting when the N-direction can be determined, the netting shall be measured in the N-direction of the meshes ([321]);
    - knotless netting when the N-direction cannot be determined, the longest axis of the mesh shall be measured ([322]).
  - — Square mesh
    When measuring a square mesh panel, the netting shall be measured first in one diagonal direction and then in the other diagonal direction of each mesh ([323]).
- Operation of the gauge:
  - — Moving the jaws:
    - to open the jaws, press the COMMAND button once (for more than 1 second);
    - to stop the opening of the jaws, press the COMMAND button a second time;
    - to close the jaws, press and hold the COMMAND button, after one second the movable jaw will retract, release the button to stop the jaw.
  - — Starting a measurement:

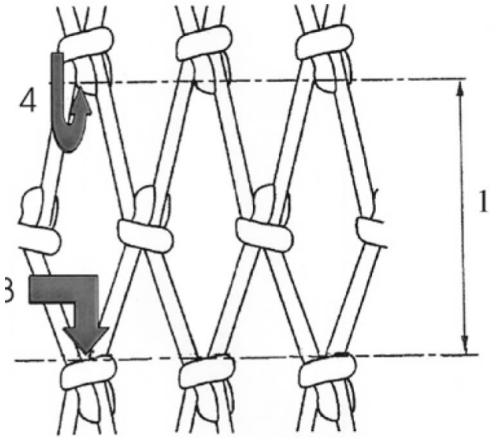


Figure 55 — *Where to measure a mesh*

- insert the jaws in the mesh,
- locate the fixed jaw in the nearest knot (position 3 in Figure 55),
- press the COMMAND button once to open the jaws,
- the moveable jaw will now extend to engage the farthest knot of the mesh (position 4 in Figure 55).

NB Care must be taken that the largest opening is measured. Ensure that the jaws are placed at the side of and not on the knots, as illustrated in the diagram. This is extremely important, as incorrect positioning of the jaws can make a significant difference to the result.

In addition, experience has shown that the result of a single mesh size measurement can be influenced (with an increase of the result up to 2 mm) when moving the gauge, when kept horizontal and under tension, slightly to the left or the right of the perpendicular position of the jaws. In practice this means that, whilst measuring, a slight movement

([320]) Article 11 of Commission Regulation (EC) No 517/2008.

([321]) Article 9(a) of Commission Regulation (EC) No 517/2008.

([322]) Article 9(b) of Commission Regulation (EC) No 517/2008.

([323]) Article 10 of Commission Regulation (EC) No 517/2008.

with the wrist can have an important influence on the measuring result, and the inspector should aim to keep the gauge as still as possible during the measurement cycle.

- Measurement algorithm:
  When the measured force approaches the selected force, the gauge will start the measurement algorithm; allow the gauge sufficient time to complete the algorithm.
- Completing a measurement:
  - When the measurement is finished, the measured values will remain on the display, and flash until accepted or rejected;
  - Accept the measurement by pressing the COMMAND button;
  - Reject the measurement by pressing the REJECT button;
  - The average of the measurements taken so far in the series can be accessed at any time by selecting 'average' from the menu.
- Completing a series:
  Once the required number of measurements has been taken, the series can be completed as follows:
  - Select the menu by pressing either of the ARROW keys; the menu can be scrolled through by using the ARROW keys;
  - Scroll to 'end sequence' and press SELECT;
  - The display will show 'Are you sure?' Confirm with the SELECT button, or cancel with any other key;
  - When confirmed, the sequence is closed, and the gauge will request the measurement force for the next sequence.

- Determination of the mesh size of the net:
  - Legal procedure
    Once the above procedure has been completed, the legal mesh size of the net shall be determined as the mean value, displayed by the gauge, of the series of 20 selected meshes ([324]). If the master of the vessel disputes this result, for any reason, then the procedure described in case of disputes must be carried out.
  - Electronic procedure
    The result of the procedure can be viewed by selecting 'view results' from the menu and selecting the last sequence measured. The average mesh size for diamond mesh can be accessed by selecting 'average' from the menu; for square mesh, average mesh size can be accessed by selecting 'square average'.
- Determination of the mesh size in case of disputes:
  - If the master of a fishing vessel disputes the result of the determination of the mesh size carried out as described above, then a further 20 meshes shall be selected and measured in another part of the fishing net ([325]). After completing the first 20 meshes it is important that the series is not completed by pressing end sequence, until it is established whether the master wishes to dispute the findings. This is because in the case of disputes the mesh size shall be re-determined as the mean value, displayed by the gauge, of all 40 meshes.
  - The criteria and procedure for selecting and measuring these further 20 meshes shall be as described above.
  - The mesh size shall then be re-determined as the mean value, displayed by the gauge, of all 40 meshes measured ([326]).
  - The displayed result of the gauge shall be final; this means that there should be no additional measurements carried out in the case of further disputes. The legally determined mesh size is the average of the 40 meshes.

([324]) Article 13 of Commission Regulation (EC) No 517/2008.

([325]) Article 14(1) of Commission Regulation (EC) No 517/2008.

([326]) Article 14(2) of Commission Regulation (EC) No 517/2008.

- Storage of results

Although the gauge is capable of storing many results, a back-up of the results should be made. The gauge may be damaged or lost, or may not be available to the original user when required.

— Paper
The judicial requirements of some Member States may require that a paper record is kept of the results. This could be considered as best practice and has the advantage that the master could be invited to sign the record as a true copy. The serial number of the gauge used should be appended to any results recorded; the serial number can be accessed via the menu.

— Electronic
The gauge has the facility to transmit data to a PC by means of an infrared port. The data is then stored in spreadsheet format. The serial number of the gauge used is included in the transmitted data.

- Interpretation of results

The gauge gives an average result corrected to one decimal place. However, the inherent accuracy of the gauge, as described in the technical specification, is ± 1 mm. Therefore, the result must be either increased or reduced by 1 mm, whichever is more favourable to the fisherman. The inspector should also take into account any legislative or case-law practices relevant to the scenario of the inspection.

- Further information

For further detailed information on all aspects of the electronic mesh gauge, the relevant user manual should always be consulted.

Part E. Methodology 2: Assessment of twine thickness

(a) The twine thickness gauge

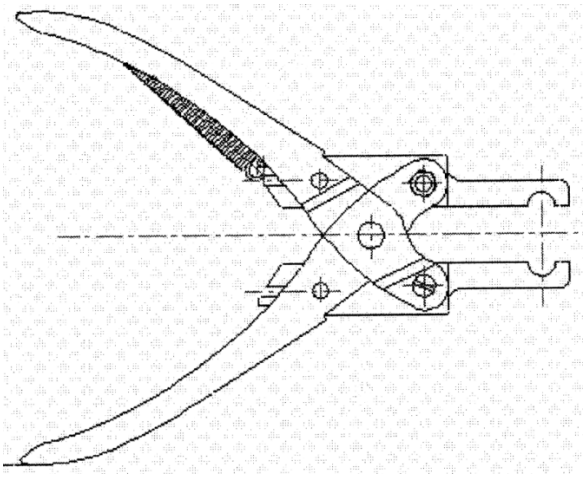


Figure 56 — *Twine thickness gauge*

- Introduction

The gauge is the mandatory tool to be used for the assessment of twine thickness. Due to the nature of the flexibility of fibre ropes, it is difficult to unambiguously determine the twine of a mesh. The twine will compress when transverse measuring forces are applied to it; therefore the twine thickness is assessed under standardised measuring conditions and an average is taken. The twine thickness gauge achieves this standardisation by testing the ability of the twine to pass easily through a rigid orifice set at the legal maximum thickness for the fishery involved.

NB Although referred to as 'the gauge', it is in fact a set of gauges with jaws of different sizes.

Current legislation requires that the twine thickness gauge is used when assessing the twine thickness ([327]).

This assessed twine thickness then becomes the figure used to check whether the net is in compliance with the regulations.

- Effect of twine thickness on selectivity

There are limits to the maximum thickness of twines because the thickness has a direct result on the selectivity of the net; the thicker the twine, the less the selectivity.

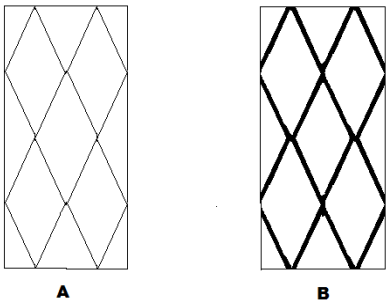


Figure 57 — *Effect of twine thickness on selectivity*

Consider the example in Figure 57, net A and B both have the same mesh size, but net B has a greater twine thickness than A. Their selectivity as regards mesh size is the same, but net B presents less area for escape (the white area), in terms of percentage, than net A. Therefore, increasing the twine size has reduced the escape possibilities and therefore the selectivity of the net.

As an example, if a mesh of 80 mm is constructed of 10 mm diameter twine, then the available escape area is cut to 64 % of the total area. This is at maximum (square) mesh opening. As the diamond configuration of the net becomes narrower, then the effect of increased twine thickness becomes even more pronounced.

- Certification of the gauge

The twine thickness gauge shall be certified by the manufacturer as complying with the technical specification ([328]).

- Marking of the gauge

Any gauge used by Union or national inspectors for control purposes shall be marked 'EC gauge' ([329]).

- Testing of the gauge
  - — Some gauges are supplied with a set of test rods. These are hard steel rods of diameters 4, 5, 6 and 8 mm, which can be used to check the openings in the jaws of the gauges. However, no mention of testing or calibration appears in the relevant legislation.
  - — Best practice would be to check the gauge with the relevant test at the time of the inspection.
  - — It is highly advisable that any such testing be documented.

([327]) Article 3(1) of Commission Regulation (EC) No 517/2008.

([328]) Article 3(4) of Commission Regulation (EC) (EC) No 517/2008.

([329]) Article 3(1) and 3(4) of Commission Regulation (EC) No 517/2008.

(b) How to assess the twine thickness of the net

- Introduction

The gauge does not measure twine thickness, the procedure used is of a pass/fail nature at a predetermined twine thickness.

- Selection of gauge:
  - A gauge with a circular hole with a diameter equal to the maximum twine thickness permitted for the part of the net considered shall be used ([330]).
  - To this end, the inspector must know the relevant maximum twine thickness permitted, taking into account the type of net, the part of the net being measured (which could be the net itself, the cod-end or an attachment) and the geographical area. All these elements can have a direct influence on the maximum twine thickness permitted in a particular scenario.
- Selection of twines:
  - General provisions: the inspector shall select meshes from any part of the fishing net which is subject to a maximum permitted twine thickness ([331]); twines within a mesh that are broken or have been repaired shall not be selected ([332]).
  - Twines in diamond mesh netting shall be selected as a series in the N-direction of the net, as shown in Figure 58. In the case of single twine netting, the twine on opposite sides of 10 meshes shall be selected ([333]) and in the case of double twine netting, each strand of twine on opposite sides of 5 meshes shall be selected ([334]).

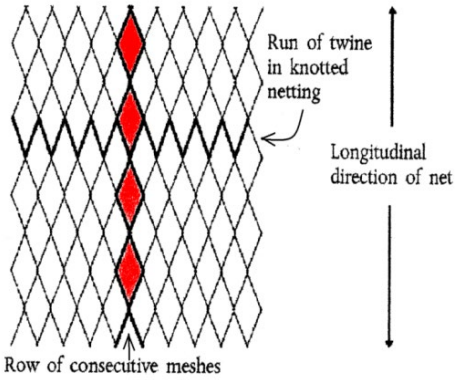


Figure 58 — *Selection of diamond mesh*

  - Twines in square mesh netting shall be selected in the following way, as shown in Figure 59: In the case of single twine netting, the twine on only one side of 20 meshes shall be selected, with the same side being selected in each mesh ([335]); in the case of double twine netting, each strand of twine on only one side of 10 meshes shall be assessed, with the same side being selected in each mesh ([336]).

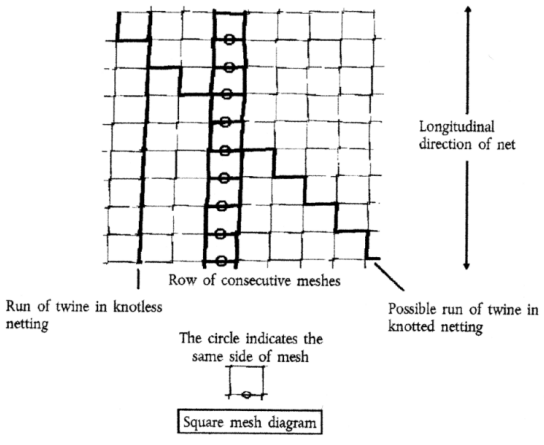


Figure 59 — *Selection of square meshes*

([330]) Article 18 of Commission Regulation (EC) No 517/2008.

([331]) Article 15(1) of Commission Regulation (EC) No 517/2008.

([332]) Article 15(2) of Commission Regulation (EC) No 517/2008.

([333]) Article 16(a) of Commission Regulation (EC) No 517/2008.

([334]) Article 16(b) of Commission Regulation (EC) No 517/2008.

([335]) Article 17(a) of Commission Regulation (EC) No 517/2008.

([336]) Article 17(b) of Commission Regulation (EC) No 517/2008.

- Identification of chosen meshes

Once the set of meshes has been chosen for measurement, it is a good practice that the meshes are marked in some way. This could be by a small piece of twine or any other method which would allow the clear identification of the meshes which have been measured. This practice will greatly reduce the possibility of a legal challenge at a later date and will also facilitate the identification and continuity of any evidence which may be required. It is also good practice, as it demonstrates to the master of the vessel that the correct procedure has been followed when selecting the meshes to be measured.

- Condition of net

As discussed in Chapter 4.1.2, the condition of the net can influence the twine thickness. Current EU legislation requires that the twine shall be assessed when unfrozen ([337]).

However, the legislation does not address the practice of washing the net prior to measurement to remove detritus trapped in the twine. This procedure can vary from streaming the net, hosing the net to pressure washing the net itself and can influence the resulting twine thickness.

- Operation of the gauge:
  - The selected twine should now be placed into the jaws of the gauge, making sure that the twine fits into the two grooves forming the hole in the jaws. Care should be taken that the twine is not trapped at the side of the jaws by not being introduced centrally. The jaws should then be closed by manual pressure on the handles of the gauge.
  - The inspector should now attempt to draw the gauge along the long axis of the twine.
  - When the thickness of the twine prevents the closure of the jaws of the gauge or the twine does not pass easily through the hole when the jaws are closed, the assessment of the thickness of a twine shall be noted by the inspector as a negative assessment (–) ([338]).
- Assessment of the twine thickness:
  - The inspector should proceed with the measurements of the 20 selected twines, noting any negative assessments (–).
  - If more than five negative assessments (–) of the 20 twines selected are noted in accordance with Article 20, the inspector shall again select and assess a further 20 twines ([339]).
  - If more than 10 negative assessments (–) of the total 40 twines selected are found, the twine thickness shall be determined as exceeding the maximum twine thickness permitted for that part of the fishing net ([340]).
- Assessment of the twine thickness in case of disputes:
  - If the master of the vessel disputes the result of the assessment of the twine thickness carried out as described above, then the inspector shall again select and assess 20 different twines in the same part of the fishing net ([341]).
  - If more than five negative assessments (–) of the total 20 twines selected are found, then the twine thickness shall be determined as exceeding the maximum twine thickness permitted for that part of the net. The result of that assessment shall be final ([342]).

([337]) Article 19 of Commission Regulation (EC) No 517/2008.

([338]) Article 20 of Commission Regulation (EC) No 517/2008.

([339]) Article 21(1) of Commission Regulation (EC) No 517/2008.

([340]) Article 21(2) of Commission Regulation (EC) No 517/2008.

([341]) Article 22(1) of Commission Regulation (EC) No 517/2008.

([342]) Article 22(2) of Commission Regulation (EC) No 517/2008.

Chapter 4.1.3 — Identify gear geometry

Part A. Introduction

Current legislation requires certain gears in specified fisheries to conform to certain restrictions on either geometry or dimensions, either to ensure that their selectivity is not reduced or to limit the possibility of illegal practices.

Part B. Concepts and definitions

(a) Circumference of cod-end/lengthening piece

Circumference of the cod-end/lengthening piece can be measured in one of three ways, depending upon the region:

- Regions 1–3: The number of meshes around the net at right angles to the longitudinal axis of the net, excluding meshes in the selvedges ([343]). This is demonstrated in Figure 60, where the meshes to be counted are shown in red (both upper and lower panels together).

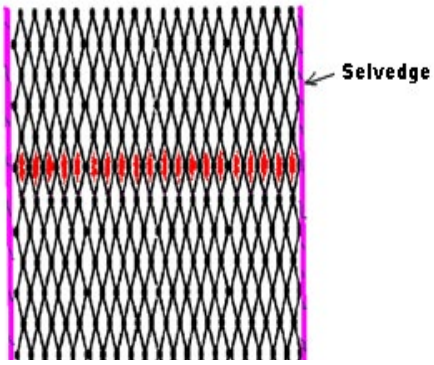


Figure 60 — *Cod-end circumference*

- Mediterranean Sea: The number of meshes in the circumference of the net (excluding the selvedges) multiplied by the determined mesh size ([344]).
- Baltic Sea: The number of meshes around the net at right angles to the longitudinal axis of the net, excluding meshes in the joining or selvedges ([345]).

(b) Length of cod-end/lengthening piece

The length of the cod-end/lengthener is measured as the stretched length of the relevant panel of the net ([346]).

(c) Beam length

The length of a beam of a beam trawl is the overall length of the beam, including attachments ([347]).

(d) Gillnet length

The length of a gillnet is the overall length of the headline (floatline) of the net ([348]).

([343]) Article 6 of Council Regulation (EC) 850/98.

([344]) Article 11(2) and Annex I(j) of Council Regulation (EC) No 1967/2006.

([345]) Article 5(e) of Council Regulation (EC) No 2187/2005.

([346]) Article 5(1)(ii) of Commission Regulation (EC) 2056/2001.

([347]) Article 30(1) of Council Regulation (EC) 850/98.

([348]) Article 12 and Annex II(a) of Council Regulation (EC) No 1967/2006.

(e) Gillnet depth

The depth of a gillnet is the stretched depth of the netting, from the headline to the footrope ([349]).

(f) Encircling net length

The length of an encircling net is the overall length of the floatline of the net ([350]).

(g) Encircling net depth

The depth of an encircling net is the stretched vertical depth of the netting, from the floatline to the footrope ([351]).

(h) Mesh bar length

The length of a mesh bar is the distance between two connected knots or joins in a mesh (see Figure 46).

(i) Panel material

The material of a panel is the type of netting making up the panel, which will depend on the following physical properties:

- twine material,
- method of construction of the twine,
- method of construction of the netting,
- mesh size,
- twine thickness.

(j) Taper

Panels of netting can be either tapered or untapered:

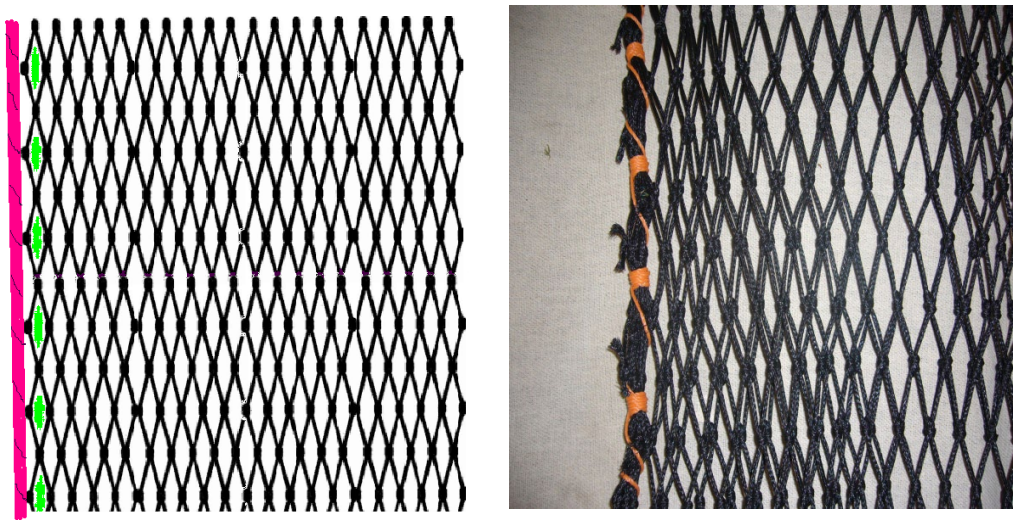


Figure 61 — *Untapered panel, schematic and actual*

- If the net is untapered, then the number of meshes at the rear of the panel is the same as at the front, i.e. the panel is parallel-sided. This is shown in Figure 61, where the front of the net is at the top of the illustration.

([349]) Article 12 and Annex II(b) of Council Regulation (EC) No 1967/2006.

([350]) Article 12 and Annex II(a) of Council Regulation (EC) No 1967/2006.

([351]) Article 12 and Annex II(b) of Council Regulation (EC) No 1967/2006.

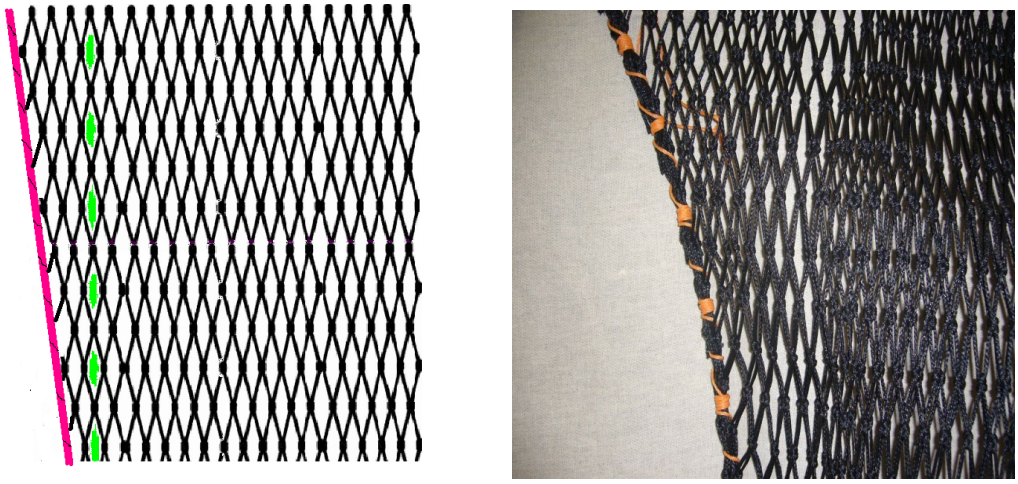


Figure 62 — *Tapered panel, schematic and actual*

- The number of meshes in the circumference of a conventionally-tapered net decreases from the front of the section to the rear. This is shown in Figure 62, where the front of the net is at the top of the illustration.

(k) Balloon cod-end

A balloon cod-end is where the cod-end tapers from the rear end to the front, i.e. there are more meshes at the rear of the cod-end than at the front ([352]).

(l) Sewing

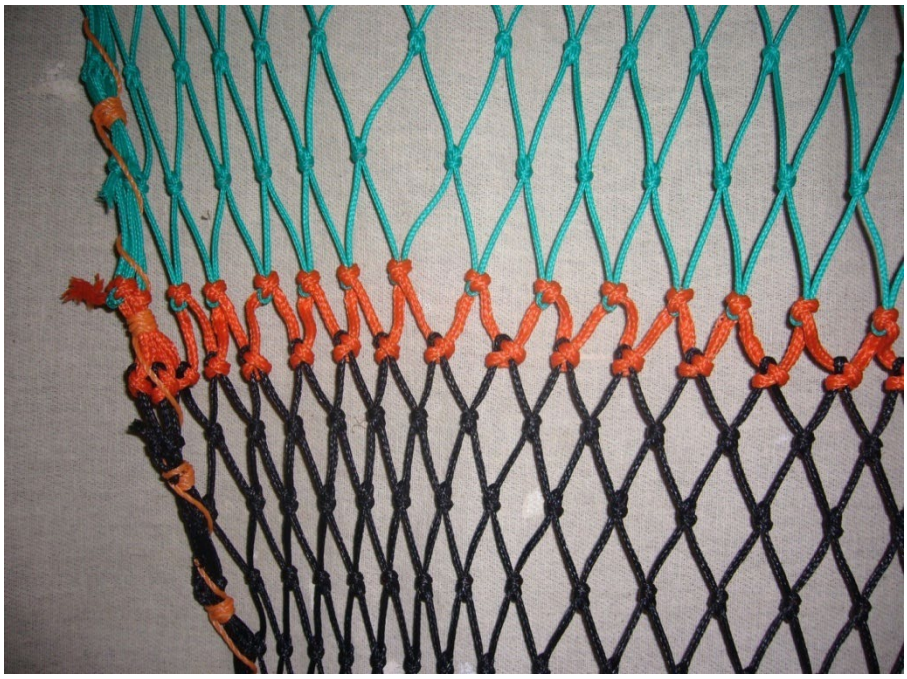


Figure 63 — *Cod-end sewn to lengthening piece*

The transverse edges (i.e. the edges at right angles to the longitudinal axis of the gear) of panels of netting are normally joined together by sewing, as shown in Figure 63. If these edges are joined simply by a twine threaded through alternate meshes (i.e. without knotting), this is called 'lacing'. Lacing allows two panels to be disconnected very quickly, by cutting the lacing twine.

([352]) Article 11(2) and Annex I(g) of Council Regulation (EC) No 1967/2006.

(m) **Hooks**

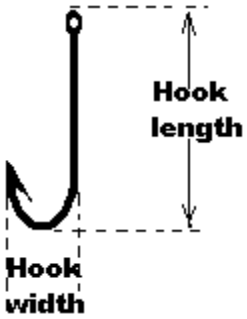


Figure 64 — *Hook dimensions*

A hook is a bent, sharpened piece of steel wire, usually equipped with a barb:

- The length of a hook shall be measured as the overall length from the tip of the shank to the apex of the bend. The width of a hook shall be measured as the greatest distance from the external part of the shank to the external part of the barb ([353]).
- The number of hooks is the total number of hooks set or on board.

(n) **Traps**

The number of traps is the total number of traps on board or set.

Part C. Data and information sources

There are provisions for certain gear parameters to be recorded in the logbook, but this information is not always mandatory, but is dependent of area and the control regime in force.

Part D. Methodology 1: Active gear

The values of the following parameters should be established, where applicable, in order to be used for checking the legality of the gear. The inspector should be aware that it will not always be possible to check all parameters, as the gear used may not be aboard the vessel at the time of inspection. The checks on the legality of the gear will be dealt with in detail in the next Section (4.2).

(a) **Towed gear**

- Cod-end:
  - mesh size and twine thickness,
  - circumference,
  - length of top and bottom panels,
  - material of top and bottom panels,
  - taper (is there any taper, if so, in which direction?),
  - method of transverse joining to lengthening piece.
- Lengthening/extension piece:
  - mesh size and twine thickness,
  - circumference,
  - length of top and bottom panels,
  - material of top and bottom panels,
  - taper.
- Beam length

([353]) Article 2(7) of Council Regulation (EC) 1967/2006.

(b) **Encircling gear:**

- depth and length of the net.

Part E. Methodology 2: Passive gear

The values of the following parameters should be established, where applicable, in order to be used for checking the legality of the gear. The inspector should be aware that it will not always be possible to check all parameters, as the gear used may not be aboard the vessel at the time of inspection. The checks on the legality of the gear will be dealt with in detail in the next Section (4.2).

(a) **Long lines:**

- length and width of hooks,
- number of hooks.

(b) **Passive nets:**

- Driftnets:
  - — mesh size and twine thickness,
  - — depth and length.
- Bottom-set nets:
  - — mesh size and twine thickness,
  - — depth and length.

(c) **Traps:**

- — number of traps.

Chapter 4.1.4 — Identify gear attachments

Part A. Introduction

Current legislation prohibits the use of any device by means of which the mesh in any part of the fishing net is obstructed or otherwise effectively diminished ([354]). However, certain devices are in common use in active (towed) gears for practical reasons and these are recognised as allowed derogations to the above prohibition, provided they comply with certain specified criteria. Such devices are known as 'attachments' and those permitted are listed below, after the definitions of cod-end and lengthening piece.

Part B. Concepts and definitions:

(a) **Cod-end:**

- The cod-end is the part of the net where the fish gathered during the fishing operation eventually arrive. Fish are normally taken on board at the end of each fishing operation from emptying the cod-end by releasing the codline. However, in certain large-scale operations, the cod-end may be emptied by pumping the fish aboard. It should be noted that the definition of cod-end in the Annex of Commission Regulation (EEC) No 3440/84 includes the cod-end *sensu stricto* and the lengthening piece.
- The cod-end is the rearmost part of the trawl, having either a cylindrical shape, i.e. the same circumference throughout or a tapering shape ([355]); for the Baltic Sea, the cod-end is further defined as the rearmost 8 m of the trawl ([356]).
- The cod-end is normally made up of two sheets of netting (generally of the same material) laced together along the edges which are in the same direction as the longitudinal axis of the trawl.

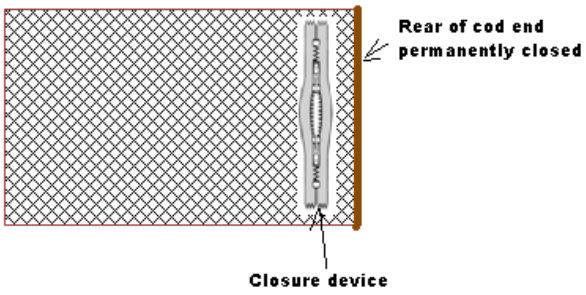


Figure 65 — *Pocket type cod-end*

- A pocket-type cod-end ([357]) is any cod-end whose vertical height diminishes towards the rearmost part of the cod-end and whose transversal cross-sections are nearly an ellipse of the same or decreasing major axis. The rearmost part of the cod-end is either composed by a single folded panel or by transversally lacing together, with respect to the longitudinal axis of the net, the rearmost upper and lower panels. Although shown in Figure 65 as a zip-like device, the closure is usually achieved by joining by sides of the opening by some form of running slipknot, which can quickly be undone.

([354]) Article 16 of Council Regulation (EC) No 850/98, Article 11 of Council Regulation (EC) No 1967/2006, Article 5 and 6 of Council Regulation (EC) No 2187/2005.

([355]) Article 2 and Annex of Commission Regulation (EEC) No 3440/84, Article 11(2) and Annex I(f) of Council Regulation (EC) No 1967/2006.

([356]) Article 2(f) of Council Regulation (EC) No 2187/2005.

([357]) Article 11(2) and Annex I(h) of Council Regulation (EC) No 1967/2006.

(b) **Lengthening/extension piece:**

- The lengthening/extension piece is made of one or more panels located just in front of the cod-end ([358]). Each panel is also normally made up of two sheets of netting (generally of the same material) laced together along the edges which are in the same direction as the longitudinal axis of the trawl.
- For the Baltic and Mediterranean Seas, the extension piece is defined as being untapered.

(c) **Bottom-side chafer** ([359])

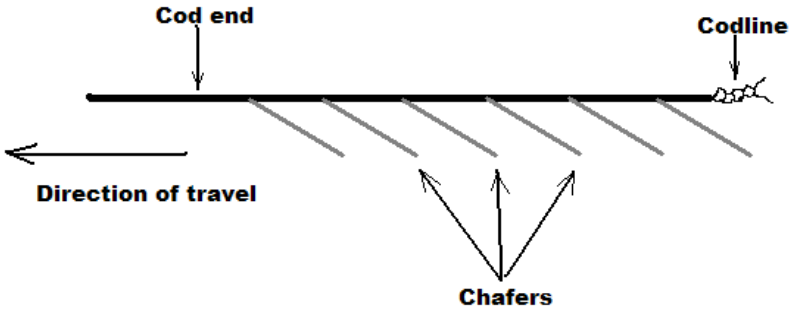


Figure 66 — *Bottom-side chafers*

- A bottom-side chafer is used to protect the cod-end from abrasion on the sea-bed and is more commonly used in demersal towed gear. A bottom-side chafer may be formed of any piece of canvas, netting, or any other material; more than one bottom-side chafer may be used at the same time and they may overlap.

(d) **Top-side chafer** ([360]) **(not authorised in the Baltic)**

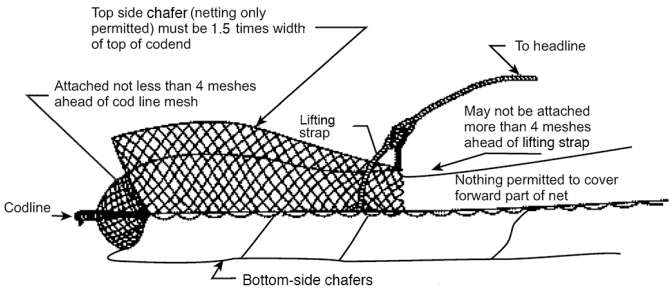


Figure 67 — *Type A top-side chafer*

([358]) Article 2 and Annex of Commission Regulation (EEC) No 3440/84, Article 2(n) of Council Regulation (EC) No 2187/2005, Article 11(2) and Annex I(e) of Council Regulation (EC) No 1967/2006.

([359]) Article 4 of Commission Regulation (EEC) No 3440/84, Article 5(2) of Council Regulation (EC) No 2187/2005.

([360]) Article 5 of Commission Regulation (EEC) No 3440/84.

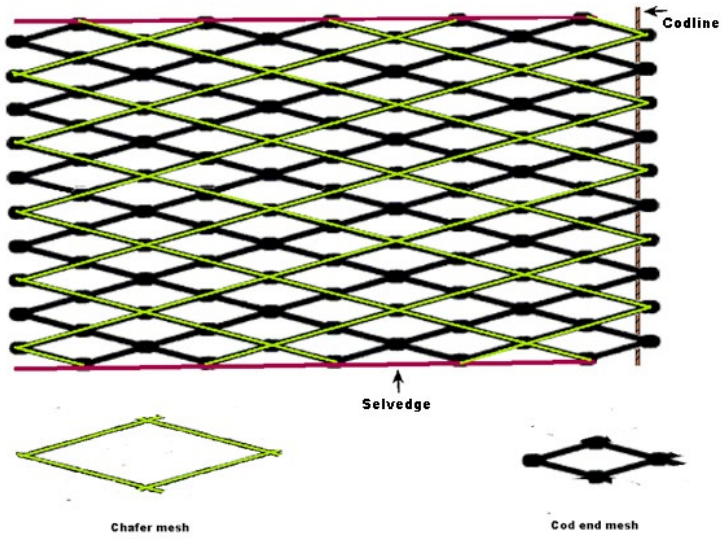


Figure 68 — *Type B top-side chafer: view from above*

- A top-side chafer is a piece of netting attached to the top panel of the cod-end. The purpose of this type of chafer is to protect the cod-end should the cod-end twist whilst being towed, thus bringing the top of the cod-end into contact with the sea bed. There are two types of top-side chafer, type A and type B, both with certain conditions associated with their use.

(e) **Strengthening bag** ([361])

- A strengthening bag is used to strengthen the cod-end and to prevent it from bursting when filled with fish and when the trawl is hauled on board. In appearance, the strengthening bag looks much the same as the arrangement in Figure 68, except that the larger mesh now also covers the lower panel of the cod- end, i.e. it is a cylindrical piece of larger netting which completely surrounds the cod-end.

(f) **Chafing or protection piece** ([362])

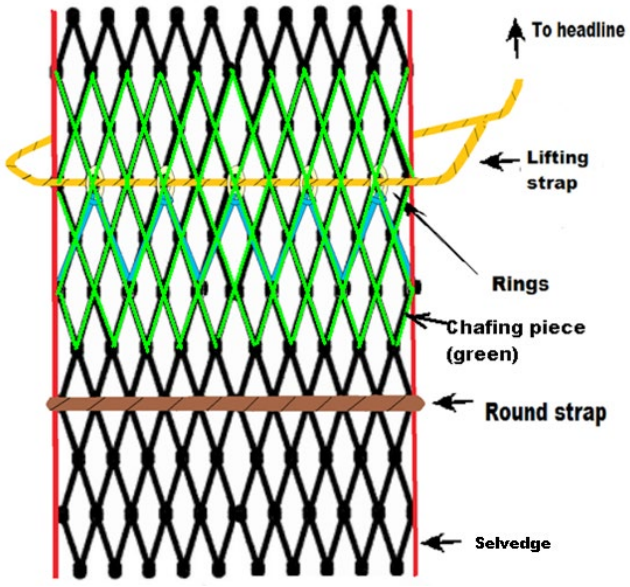


Figure 69 — *Chafing piece*

([361]) Article 6 of Commission Regulation (EEC) No 3440/84, Article 11(2) and Annex I(B)(7) of Council Regulation (EC) No 1967/2006, Article 2(g) of Council Regulation (EC) No 2187/2005.

([362]) Article 7 of Commission Regulation (EEC) No 3440/84.

- A chafing piece (Figure 69) is used to prevent the lifting strap from cutting the netting of the cod-end; a chafing or protection piece is a short cylindrical piece of netting with the same circumference as the cod-end or strengthening bag, if any, and which surrounds the cod-end or the strengthening bag at the points of attachment of the lifting strap.

(g) **Codline** ([363])

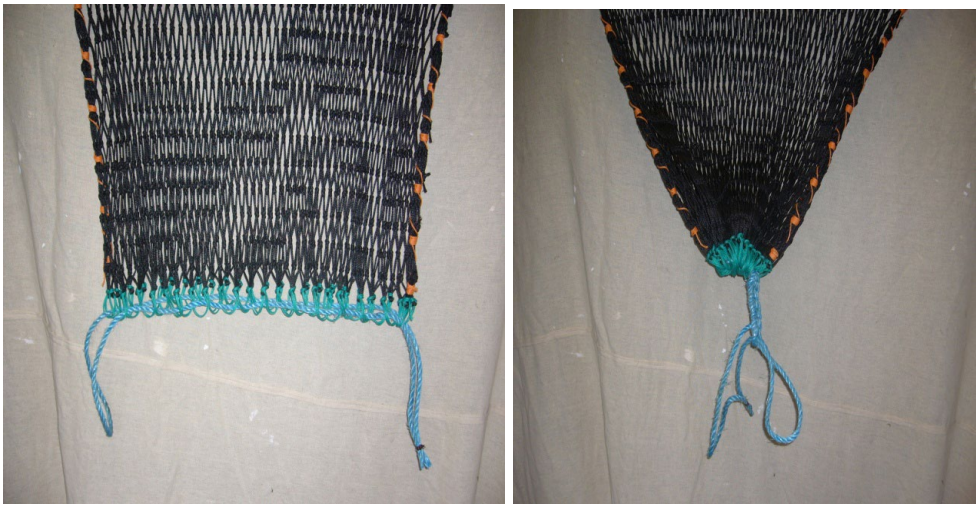


Figure 70 — *Codline open and closed*

- A codline is a rope making it possible to close the rear of the cod-end and/or strengthening bags by means of either a knot which can be easily loosened (cod-end knot) or a mechanical device (cod-end clip). The codline is passed through the meshes of the cod-end, encircling the cod-end at right angles to the longitudinal axis of the net (see Figure 70).

(h) **Lifting strap** ([364])

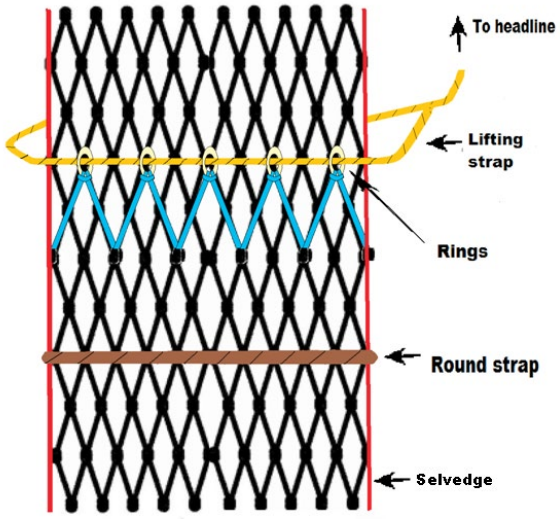


Figure 71 — *Lifting strap and round strap*

- A lifting strap is a piece of rope or wire loosely encircling the circumference of the cod-end or the strengthening bag, if any, and attached to it by means of loops or rings. This is used to bring on board the cod-end, in order to empty it. More than one lifting strap may be used at any time.

([363]) Article 8 of Commission Regulation (EEC) No 3440/84.

([364]) Article 9 of Commission Regulation (EEC) No 3440/84, Article 2(i) of Council Regulation (EC) No 2187/2005.

- Although rings are commonly used to connect the lifting strap, sometimes the lifting strap is attached by passing it through two loops of rope (grommets) or rings attached one to each selvage.

(i) **Round straps** ([365])

- Round straps are ring-shaped ropes which encircle the cod-end or the strengthening bag at regular intervals and which are attached to it (see Figure 71). The purpose of a round strap is to limit the extension of the diameter of the cod-end and to strengthen the cod-end against the possibility of bursting.

(j) **Transversal lacing rope** ([366]) **(Mediterranean only)**

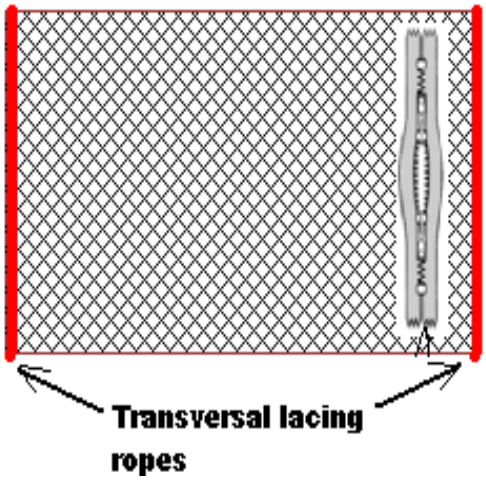


Figure 72 — *Transversal lacing ropes*

- A transversal lacing rope is any external or internal rope running transversally, with respect to the longitudinal axis of the net, in the rearmost part of the cod-end either along the join between two upper and lower panels or along the bend of the single rearmost panel. It can be either a prolongation of the lateral lacing rope or a separate rope.

(k) **Flapper** ([367])

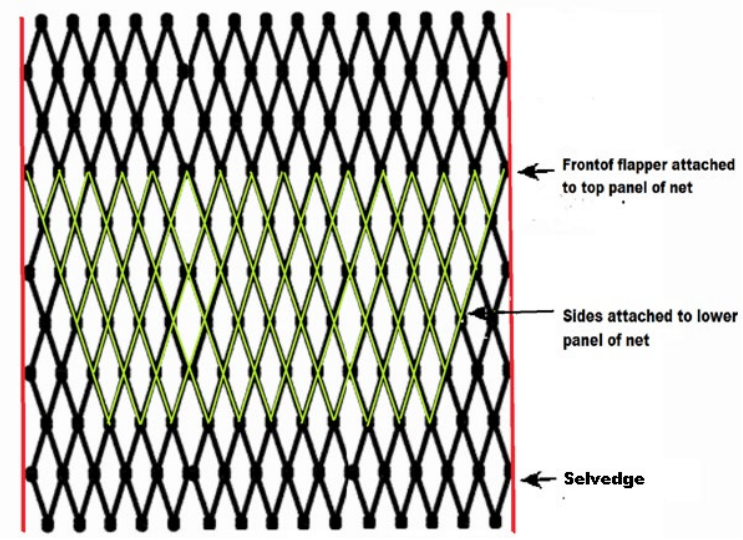


Figure 73 — *Flapper*

([365]) Article 10 of Commission Regulation (EEC) No 3440/84, Article 2(j) of Council Regulation (EC) No 2187/2005.

([366]) Article 11(2) and Annex 2(i) of Council Regulation (EC) No 1967/2006.

([367]) Article 11 of Commission Regulation (EEC) No 3440/84, Article 2(k) of Council Regulation (EC) No 2187/2005.

- A flapper is a piece of netting with a mesh size at least equal to that of the cod- end, fastened inside a trawl, in such a way that it allows catches to pass from the front to the rear of the trawl but limits their possibility of return. The flapper is trapezoidal in shape, the longer of the parallel sides is attached to the upper panel of the net and the tapering sides are attached to the lower panel of the net. The shorter parallel side is at the rear and is not attached to the net. This effectively forms a funnel, making return to the forward part of the net difficult for the fish. In Figure 73, the flapper mesh is shown in green; this view is inside the net.

(l) **Sieve netting** ([368])

- Sieve netting is a piece of larger-mesh netting used to catch fish, shrimps, or other species selectively by filtration or diversion.

(m) **Strengthening rope** ([369])

- A strengthening rope is any rope, other than a lacing rope, attached to any part of the net. Its purpose is to strengthen the net and prevent damage.

(n) **Torquette** ([370])

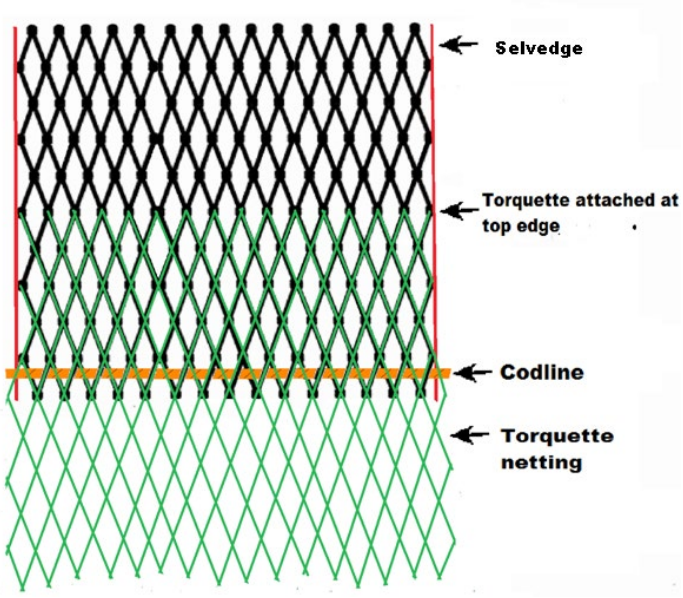


Figure 74 — *Torquette — inside of cod-end view*

- A torquette is a piece of netting fixed inside the cod-end at its rear end. The purpose of a torquette is to improve the closing of the cod-end by the codline. Where the meshes from the cod-end are bunched up by the closure of the codline, there is sometimes a significant hole left at the middle. The torquette effectively stops up the hole, preventing smaller fish from escaping.

(o) **Median lacing of a trouser cod-end** ([371])

- Occasionally, a cod-end may be split in two, in order to make heavy catches easier to handle. This can be achieved by joining lengthwise the upper and lower halves of a cod-end to form a trouser cod-end, as suggested in the regulation, although normally the two halves will be separated for ease of handling.

([368]) Article 12 of Commission Regulation (EEC) No 3440/84.

([369]) Article 13 of Commission Regulation (EEC) No 3440/84.

([370]) Article 14 of Commission Regulation (EEC) No 3440/84.

([371]) Article 15 of Commission Regulation (EEC) No 3440/84.

Part C. Data and information sources

The logbook will not normally contain any information regarding attachments fitted to the gear.

Part D. Methodology

- The inspector should examine the gear to the extent required to identify any attachments to the gear and record his findings. This information will then allow the inspector to decide on the appropriate course of action to take, insofar as what parameters of the attachments will need to be ascertained, in order to check on the legality of the attachments.

Chapter 4.1.5 — Identify selectivity of fishing gear

Part A. Introduction

Current legislation requires escape panels to be fitted in certain gears in specified fisheries. The purpose of these panels is to allow the escape of non-target species, normally gadoids ([372]), which tend to rise when in the net. In addition, escape panels in the cod-end may assist the release of smaller specimens of target or non-target species. Sorting grids are sometimes used in small-mesh nets targeting crustaceans, to allow the escape of white fish.

Escape panels may also be fitted voluntarily by the fishermen, to avoid the capture of unwanted species. As discards have risen in importance in the political agenda selectivity has become more of an issue. As a consequence MS at the behest of or in partnership with the local fishing industry have sought local solutions to discards. This in practice has meant the introduction of selectivity measures that are not necessarily detailed in Union regulations. These local solutions are legalised usually through an implementing regulation, and may have a time constraint.

Part B. Concepts and definitions

(a) **Escape panels:**

- Headline panel

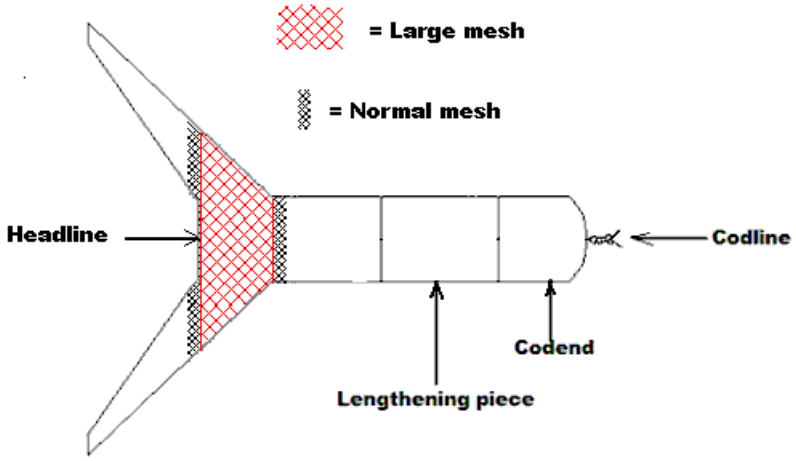


Figure 75 — *Position of headline panel in a trawl or seine*

([372]) Cod (*Gadus morhua*), haddock (*Melonogrammus aeglefinus*), hake (*Merluccius merluccius*), Pollack (*Pollachius pollachius*), saithe (*Pollachius virens*) and whiting (*Merlangius merlangus*).

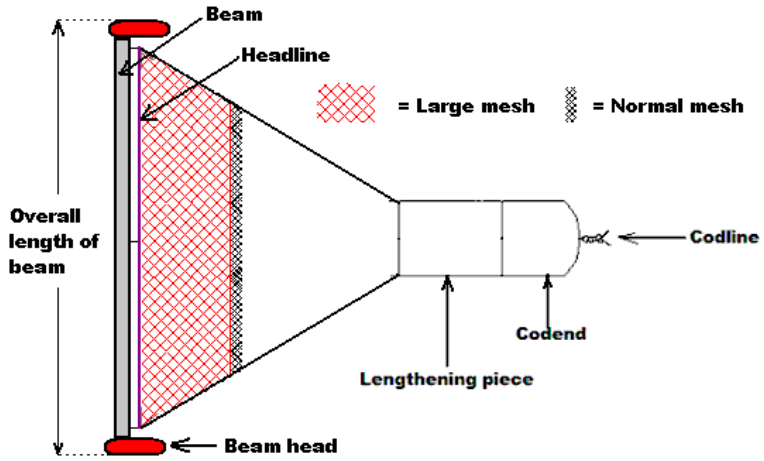


Figure 76 — *Position of headline panel in a beam trawl*

A headline panel is a panel of large-mesh diamond netting attached directly or close to the headline of a towed net; possible positions of such panels are shown in Figures 75 and 76.

- Square mesh panel

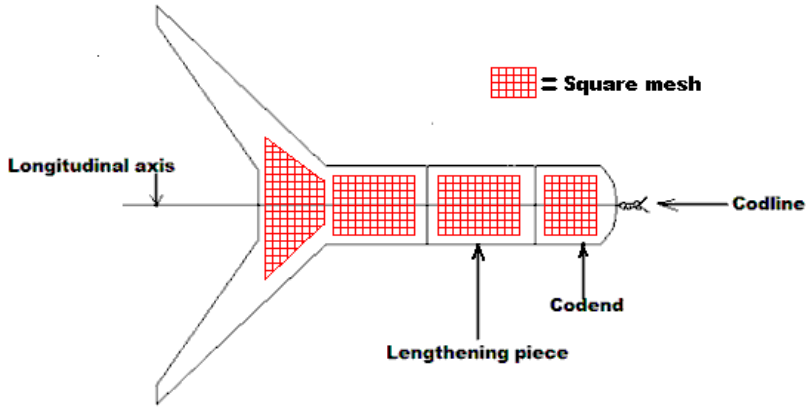


Figure 77 — *Possible positions of square mesh panels*

A square mesh panel (SMP) is a panel of netting made up of square mesh netting, which is a construction of netting mounted so that of the two sets of parallel lines formed by the mesh bars, one set is parallel to, and the other at right angles to, the long axis of the net ([373]).

The panel must be placed in the top half of the net and may be sited in front of the lengthening piece or anywhere between the front of the lengthening piece and the rear of the cod-end ([374]).

- Sorting grids

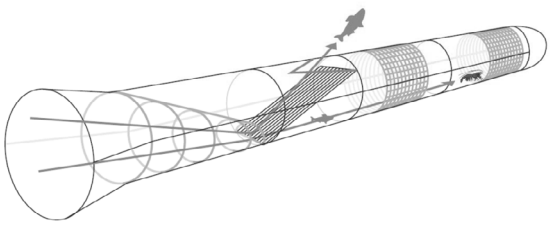


Figure 78 — *Sorting grid*

([373]) Article 3(d) of Council Regulation (EC) No 850/98.

([374]) Article 7(2)(a) of Council Regulation (EC) No 850/98, Annex I(B (3) of Council Regulation (EC) No 1967/2006.

Sorting grids are normally used to allow the escape of unwanted fish, usually larger specimens in fisheries targeting crustaceans. A grid is generally made up of a set of parallel vertical bars (Figure 78) set at a uniform distance apart, the distance depending on the target species.

(b) **Environmental features:**

- Acoustic deterrent devices

Figure 79 — *A selection of acoustic devices*

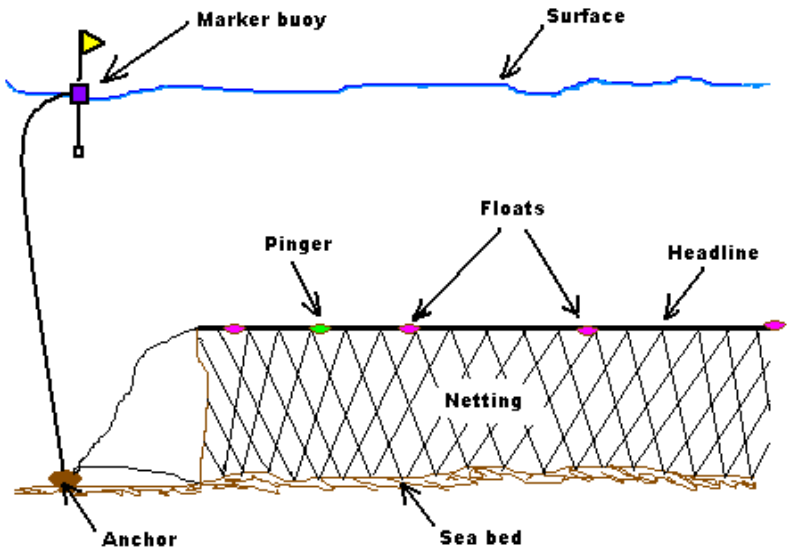


Figure 80 — *Mounting of pinger on gillnet*

Current legislation requires that, in certain areas, some bottom-set gillnets and driftnets are fitted with acoustic deterrent devices ([375]). These devices emit a signal at frequencies designed to drive cetaceans (whales, dolphins and porpoises) away from the gear.

([375]) Article 2 and Annex 1 of Council Regulation (EC) No 812/2004.

They are normally referred to as 'pingers'. Figure 79 shows a range of such devices and Figure 80 shows a typical arrangement for mounting a pinger on a bottom-set gillnet.

Part C. Data and information sources

The logbook will not normally contain any information regarding selectivity devices fitted to the gear.

Part D. Methodology

The inspector should ascertain the following parameters for any devices found in the gear; these findings will subsequently be used to check the legality of the gear:

(a) **Escape panels**

- Headline panel:
  - — mesh size,
  - — depth of panel in meshes,
  - — distance from headline in meshes,
  - — overall length of beam (beam trawls only).
- Square mesh panel:
  - — mesh size,
  - — position in net,
  - — the length of the panel in the direction of the longitudinal direction of the net,
  - — the type of netting in the panel,
  - — the taper of the panel in the direction of the longitudinal direction of the net,
  - — distance of the panel from selvedges (in meshes).
- Sorting grids:
  - — position in net,
  - — distance between bars (in millimetres).

(b) **Environmental features**

- Acoustic deterrent devices:
  - — Mesh size of net.
  - — Length of net — measured as the total length of the headline.
  - — Distance between individual pingers, i.e. the spacing of the pingers.
  - — Position of pingers at each end of the net, i.e. is there a pinger placed at each end of the net?
  - — As regards the technical parameters of pingers (listed in Annex 4), the inspector is unlikely to have the technical expertise to ascertain these and it is better to note the type of pinger and to see if it is on a list approved by the relevant Member State, bearing in mind that the MS can approve devices not complying with the requirements laid down in the regulation ([376]).

([376]) Article 3(2) of Council Regulation (EC) No 812/2004.

Chapter 4.1.6 — Identify gear marking

Part A. Introduction

Current legislation requires certain gears (passive gear and beam trawls) to be marked, in order to identify the vessel using the gear ([377]). These requirements apply to all EU vessels fishing in EU waters. There are further requirements when passive gear is deployed outside of 12 nautical miles measured from the base lines of the coastal Member State.

In addition, any craft carried on board an EU fishing vessel must be marked with the external registration of the fishing vessel(s) which use them ([378]).

When inspecting gear in port, the inspector should bear in mind the fact that it may not be possible to check all the requirements of the marking of gear, as the inspector will not have the possibility of seeing the gear whilst it is deployed. This is especially true for the deployment of marker buoys whose characteristics depend on their position in the net and the geographical location of the net. The inspector will not necessarily have access to all this data during an inspection ashore.

Part B. Concepts and definitions:

(a) Base lines

- A base line is a line on the coast from which the breadth of the territorial sea is measured ([379]).

(b) Passive gear

- Passive gear means any fishing gear the catch operation of which does not require an active movement of the gear, including: gillnets, entangling nets, trammel nets, trap nets, drifting nets, long lines, lines, pots and traps ([380]).

(c) Beam trawl

- Beam trawl means any towed trawl in which the mouth of the trawl is held open by a beam or similar device, irrespectively of whether they are supported or not when dragged along the seabed ([381]).

(d) Labels

- A label is an item made of durable material which is securely fixed to the gear and is at least 65 mm broad and 75 mm long ([382]). It shall carry the external registration of the vessel to which the gear belongs and there shall be one such label at intervals of no more than one nautical mile along the whole length of the gear ([383]).

(e) Marker buoys

- Marker buoys are poles fitted with a flotation device and held upright in the water by a weight; the top of the pole will carry flags, luminous bands and flashing lights, the characteristics of which will depend on the position of the buoy in relation to the net, as described in Figure 81.

([377]) Article 9(1) of Council Implementing Regulation (EC) No 404/2011.

([378]) Article 8 of Council Implementing Regulation (EC) No 404/2011.

([379]) Article 76(1) of UNCLOS.

([380]) Article 2(6) of Council Implementing Regulation (EC) No 404/2011.

([381]) Article 2(7) of Council Implementing Regulation (EC) No 404/2011.

([382]) Article 12 of Council Implementing Regulation (EC) No 404/2011.

([383]) Article 11 of Council Implementing Regulation (EC) No 404/2011.

(f) **Auxiliary craft**

- An auxiliary craft is any craft carried aboard a fishing vessel and used to assist in the fishing operation. Most commonly, this will be a skiff used by a purse seiner to assist with the setting and closing of the seine.

(g) **External registration**

- External registration is the unique set of letters and numbers assigned to the vessel and entered in the Union fleet register. These letters and numbers will normally be displayed on the hull of the fishing vessel.

Part C. Data and information sources

The logbook will contain details of the type of gear in use and the external identification of the vessel. It may also contain details of the length of any gillnets in use.

Part D. Methodology

The inspector should ascertain the following parameters for any markings found on the gear and/or any auxiliary craft; these findings will subsequently be used to check the legality of the markings:

(a) **Beam trawls:**

- Fishing vessel's external registration,
- Correct external registration on beam.

(b) **Marking of auxiliary craft:**

- Correct external registration on craft.

(c) **Passive gear:**

- Fishing vessel's external registration,
- Labels:
  - — correct external registration on label,
  - — durability and security,
  - — length and breadth,
  - — position of labels relative to gear geometry,
  - — spacing of labels (when gear extends for more than 1 nautical mile).
- Buoys:

— correct external registration on buoy,
— legibility of marking.

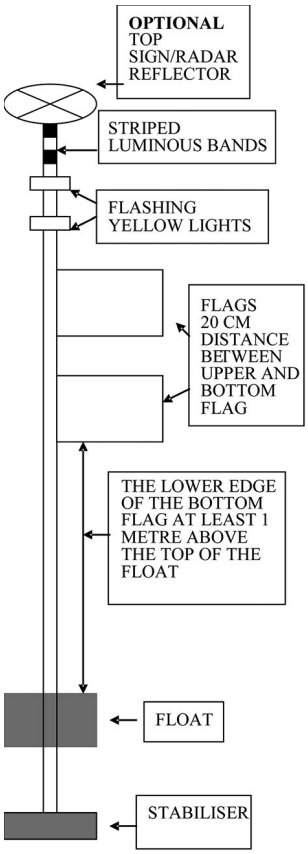


Figure 81 — *Characteristics of a marker buoy*

Chapter 4.1.7 — Prohibited methods of fishing

Part A. Introduction

In order to protect certain species or the marine environment, there are certain gears and practices which are prohibited or their use is prohibited for the taking or offering for sale of certain species or within certain areas.

Part B. Concepts and definitions

The following methods of fishing are prohibited, either as a total prohibition or as a prohibition linked to certain species or areas. However, the inspector should be aware that occasionally a vessel or a group of vessels may be granted a derogation to use such prohibited methods, normally for research purposes. In such cases, the vessel will carry a document outlining the conditions of the derogation and the issuing authority.

An example of this was a derogation granted by the Commission to a small number of Dutch beam trawlers to pilot a scheme to use electricity as a substitute for heavy tickler chains.

(a) **Poisons**

- These are substances which kill marine organisms, thus making them easier to harvest. Described as either poisonous or toxic substances.

(b) **Stupefying products**

- These are substances which impair the mobility of marine organisms, thus making them easier to harvest. Described as either stupefying or soporific substances.

(c) **Corrosives**

- These are substances which damage marine organisms, thus making them easier to harvest.

(d) **Electricity**

- Electricity can be used to kill or stun marine organisms, thus making them easier to harvest; it may be used either in the water column, or more frequently, on the sea bed.

(e) **Explosives or substances which can explode when mixed**

- These are substances which produce an explosion to kill or stun marine organisms, thus making them easier to harvest.

(f) **Projectiles**

- These are any device which can be launched, either mechanically or manually; examples are harpoons and spears.

(g) **Towed devices**

- These are devices which can be towed across the sea bed, such as dredges.

(h) **Pneumatic hammers**

- These are devices powered by air pressure, used to break up rocks or other benthic matter.

(i) **St Andrew's cross**

- This is a device used to harvest marine organisms from the sea bed which is dragged across the sea bed and tangles parts of coral in clumps of net suspended from a cross-shaped structure.

Part C. Data and information sources

As these methods are prohibited, it is highly unlikely that they will be recorded in the logbook.

Part D. Methodology

The inspector should identify any substances or devices which could be deemed as prohibited, bearing mind that the prohibitions or restrictions vary by fishing area and that either the use or the carriage of these devices may be prohibited. These regional prohibitions are as follows:

(1) **Baltic Sea**

- Explosives, poisonous or stupefying substances, electric current or any kind of projectile may not be used for the purpose of catching fish ([384]).

(b) **Regions 2-3:**

- The catching of marine organisms by using explosives, poisonous or stupefying substances or electric current is prohibited ([385]). The inspector should be aware that some beam trawlers are operating using electric pulses instead of tickler chains. This is being done under a derogation, which has associated conditions regarding the technical specifications of the gear and area of use ([386]).
- The sale, display or offer for sale of marine organisms caught using any kind of projectile is prohibited ([387]).

(c) **Mediterranean Sea**

- The following shall not be used for fishing or kept on board ([388]):
  - — toxic, soporific or corrosive substances,
  - — electric shock generators,
  - — explosives or substances that can explode when mixed,
  - — towed devices for harvesting corals or coral-like organisms,
  - — pneumatic hammers or other percussive instruments for the collection of bivalve molluscs,
  - — St Andrew's cross and similar grabs for harvesting corals or coral-like organisms.

([384]) Article 23 of Council Regulation (EC) No 2187/2005.

([385]) Article 31(1) of Council Regulation (EC) No 850/98.

([386]) Article 31(a) of Council Regulation (EC) No 850/98.

([387]) Article 31(2) of Council Regulation (EC) No 850/98.

([388]) Article 8 of Council Regulation (EC) No 1967/2006.

Appendix 1: Bibliography

- Nédélec, C., Prado, J., 'Definition and classification of fishing gear categories', FAO Fisheries Technical Paper No 222, Revision 1, Rome, FAO, 1990, 92 pp. (With grateful acknowledgement to the Food and Agriculture Organisation of the United Nations).

Appendix 2: Links and references

Appendix 3: Legislation

- Commission Regulation (EEC) No 3440/84 of 6 December 1984 on the attachment of devices to trawls, Danish seines and similar nets.
- Council Regulation (EC) No 850/98 of 30 March 1998 for the conservation of fishery resources through technical measures for the protection of juveniles of marine organisms.
- Commission Regulation (EC) No 2056/2001 of 19 October 2001 establishing additional technical measures for the recovery of the stocks of cod in the North Sea and to the west of Scotland.
- Council Regulation (EC) No 812/2004 of 26 April 2004 laying down measures concerning incidental catches of cetaceans in fisheries and amending Regulation (EC) No 88/98.
- Council Regulation (EC) No 2187/2005 of 21 December 2005 for the conservation of fishery resources through technical measures in the Baltic Sea, the Belts and the Sound, amending Regulation (EC) No 1434/98 and repealing Regulation (EC) No 88/98.
- Council Regulation (EC) No 1967/2006 of 21 December 2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea, amending Regulation (EEC) No 2847/93 and repealing Regulation (EC) No 1626/94.
- Commission Regulation (EC) No 517/2008 of 10 June 2008 laying down detailed rules for the implementation of Council Regulation (EC) No 850/98 as regards the determination of the mesh size and assessing the thickness of twine of fishing nets.
- Commission Implementing Regulation (EU) No 404/2011 of 8 April 2011 laying down detailed rules for the implementation of Council Regulation (EC) No 1224/2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy (CFP).
- Regulation (EU) No 1343/2011 of the European Parliament and of the Council of 13 December 2011 on certain provisions for fishing in the GFCM (General Fisheries Commission for the Mediterranean) Agreement area and amending Council Regulation (EC) No 1967/2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea.
- United Nations Convention on the Law of the Sea (UNCLOS).

Annex 1: FAO gear codes

International Standard Statistical Classification of Fishing Gear (ISSCFG)

Table 3 — *FAO gear codes*

Fishing gear description	CODE
SURROUNDING NETS	
Surrounding net with purse line (purse seine)	PS
One boat operated purse seine	PS1
Two boat operated purse seine	PS2
Surrounding net without purse line (lampara)	LA
BOAT SEINE NETS	
Danish seine	SDN
Scottish seine	SSC
TRAWL NETS	
Beam trawl	TBB
Bottom otter trawl	OTB
Bottom pair trawl	PTB
Nephrop trawl	TBN
Shrimp trawl	TBS
Bottom trawl (not specified)	TB
Midwater otter trawl	OTM
Midwater pair trawl	PTM
Nephrop trawl	TBN
Midwater trawl (not specified)	TM
Otter twin trawl	OTT
Otter trawl (not specified)	OT
Pair trawl (not specified)	PT
Other trawl (not specified)	TX
DREDGES	
Boat dredges	DRB
GILLNETS AND ENTANGLING NETS	
Bottom-set gillnets	GNS
Driftnets	GND
Trammel nets	GTR
Combined gillnets and trammel nets	GTN
Gillnets and entangling nets (not specified)	GEN
Gillnets (not specified)	GN
TRAPS	
Pots	FPO
Traps (not specified)	FIX
HOOKS AND LINES	
Bottom-set longlines	LLS
Drifting longlines	LLD
Longlines (not specified)	LL
Hooks and lines (not specified)	LX

Annex 2: Technical specification of the electronic mesh gauge

EU legislation ([389]) lays down the technical specification of the gauge; the mesh gauge shall:

- automatically apply a longitudinal measuring force when measuring the mesh size of fishing nets;
- have two jaws, one fixed and one movable, each 2 mm thick with rounded edges with a radius of 1 mm to ensure that the jaws slip easily over the twine;
- be electrically driven or if battery powered it shall be capable of making 1 000 consecutive mesh measurements before requiring to be recharged;
- be able to apply selected longitudinal forces, in the range 5 to 180 N, to the meshes with a precision of 1 N;
- have a built-in system for measuring the applied force;
- be capable to stretch a mesh at a constant speed of 300 ± 30 mm/min by the movable jaw;
- be able to measure meshes from 10 to 300 mm and have detachable jaws for use on small and large meshes;
- have a measurement precision of 1 mm;
- have a structure which is rigid and shall not be distorted under load;
- be light yet robust and should weigh no more than 2.5 kg;
- be made of materials resistant to corrosion under marine conditions;
- be water resistant and unaffected by dust to standard IP56;
- be stable in operation over a temperature range of – 10 to + 45 °C;
- be able to withstand temperatures between – 30 and 70 °C during storage and transportation;
- be controlled by software which should provide a menu of functions and enable the gauge to self-test the electronic and mechanical parts when started;
- display that the gauge is ready for use and if not, display an error message, close down and cease operating;
- be possible to operate with one hand and the functions must be accessed via external buttons;
- show data on an integral display and present each measurement, the number of measurements made in a series, and the mean value in millimetres;
- store the data of at least 1 000 measurements in its memory and it must be possible to transmit data to a computer;
- contain a function to calculate the mean mesh size rounded to the nearest 0.1 mm;
- incorporate software having a function to automatically select the largest diagonal of each mesh to calculate the mean mesh size of the square mesh netting;
- save the data of all measurements made.

Because most netting stretches when a measuring force is applied to it, thereby decreasing the measuring force, an algorithm is built into the software of the gauge, to bring the measuring force back up to its original predetermined value, if the force drops by more than 20 %. In order to achieve this, the gauge must be able to:

- extend the movable jaw into the mesh at a constant speed of 300 ± 30 mm/min, until the measurement force is reached;
- stop the motor and wait for 1 second;
- if the force drops below 80 % of the pre-set measurement force, extend the movable jaw into the mesh until the measurement force is reached once more.

([389]) Annex III of Commission Regulation (EC) No 517/2008.

Annex 3: Technical specification of the twine thickness gauge

EU legislation ([390]) lays down the technical specification of the gauge; the mesh gauge shall:

- be made of durable, non-corrosive material able to withstand a harsh marine environment and shall be manufactured in accordance with the drawing shown in the figure below;
- have edges around the circumference of each side of the circular hole for assessing the thickness of the twine (the hole) rounded to avoid abrasion when the twine is pulled through the hole to test legality;
- be constructed with the nose of the pliers rounded to facilitate inserting the jaws between double twines;
- have jaws with parallel action that are sufficiently strong to prevent deformation of the jaws during any reasonable use, bearing in mind that the jaws have to be squeezed closed with manual force during every measurement;
- have the inside faces of the jaws milled to leave a 0.5 mm gap for a distance of 1 mm either side of the hole when the jaws are closed in order to avoid single filaments of material protruding from braided or twisted construction being trapped in the flat surfaces of the jaws on each side of the hole in which the twine is seated;
- have, when the jaws are closed, the diameter of the circular hole marked in millimetres on one of the jaws, adjacent to the hole; the jaws are closed when the surface of both internal sides of the jaws touch each other and are flush;
- have both the handle and the jaws marked 'EC gauge';
- have a tolerance for the hole diameter of 0 + 0.1 mm;
- be conveniently portable such that a set of four (4 mm, 5 mm, 6 mm, and 8 mm) gauges may be carried by an inspector during vessel to vessel transfer at sea;
- if gauges are of different sizes, be easily identifiable;
- be easy to insert between double twine. After the gauge has been inserted into position, it shall be capable of easy operation with one hand.

([390]) Annex III of Commission Regulation (EC) No 517/2008.

Annex 4: Technical specifications and conditions of use of acoustic deterrent devices

Any acoustic deterrent devices used shall meet one of the following sets of signal and implementation characteristics ([391])

Table 4 — *Acoustic deterrent devices characteristics*

	SET 1	SET 2
	Signal characteristics	
Signal synthesis	Digital	Analogue
Tonal/wide band	Wide band/tonal	Tonal
Source levels (max–min) re 1 mPa@1m	145 dB	130–150 dB
Fundamental frequency	(a) 20–160 KHz wide band sweeps (b) 10 kHz tonal	10 kHz
High-frequency harmonics	Yes	Yes
Pulse duration (nominal)	300 ms	300 ms
Interpulse interval	(a) 4–30 seconds randomised; (b) 4 seconds	4 seconds
	Implementation characteristics	
Maximum spacing between two acoustic deterrent devices along nets	200 m, with one acoustic device fixed at each end of the net (or combination of nets attached together)	100 m, with one acoustic device fixed at each end of the net (or combination of nets attached together)

([391]) Article 2(1) and Annex II of Council Regulation (EC) No 812/2004.

Section 4.2 Check conformity of gear

Coverage: EU ports, all vessels

1. Objectives:

This module will lead the trainee through the processes involved in identifying the type of fishing gear in use or on board and establishing the legality of the gear.

The module will assist the trainee to complete points 61-67 of the minimum information required for the completion of inspection reports ([392]).

2. Overview

The conservation of fish stocks is a key element of the common fisheries policy (CFP); there is a complex and varied set of regulations governing the use of fishing gear and stipulating the dimensions of the gear in relation to the mesh size, the twine thickness and the geometry of the gear. The overall purpose of these regulations is to ensure that the capture of both juvenile and unwanted fish is minimised as far as is practicable.

The geometry of the gear can influence both the size of fish retained and the species retained.

In some fisheries, the amount of gear which can be used is restricted, in order to limit the effort on these fisheries.

Some gears must be marked, in order to identify the vessel using the gear.

Some gears may carry devices designed to scare off marine mammals or seabirds, to avoid their accidental capture.

This section will lead the trainee through the processes involved in establishing the legality of the gear in use or on board.

3. Entry requirements

Trainees should have knowledge of gear types, net construction and technology and be able to establish the relevant parameters associated with the gear. This can be achieved by completing Section 4.1 — Identify and examine gear in use and any other on board.

([392]) Article 115 and points 61-67 of Module 3 of Annex XXVII of Commission Implementing Regulation No 404/2011.

Chapter 4.2.1 — Compare identified gear with the information recorded by the master

Part A. Introduction

Current legislation requires that, if it is compulsory that a logbook be kept, then the master of a fishing vessel must declare the type of gear in use and, in some cases, certain parameters associated with the gear. This information must be recorded in the logbook, either in the ERS ([393]) or paper ([394]) format.

The inspection of fishing gear during a landing inspection can pose particular problems for the inspector, as the gear which has been used (or which the master claims has been used) may not be on board. Active gear may have been lost during the voyage and static gear may have been left at sea to carry on fishing. It is therefore very important that the inspector confirms with the master of the vessel whether the gear which has been used during the voyage is actually on board. If the master claims that the gear is not on board, then the inspector should assume that the gear which has been used is that entered in the logbook, unless he has evidence to the contrary.

If the inspector accepts that the gear used is not on board, he may still inspect any gear aboard to ensure that it is not a prohibited gear. The inspector should be aware that either the carriage or the use of a specific gear may be prohibited, depending on the fishery and he will need to be aware of these different conditions before deciding on the legality or otherwise of any gear found on board.

Part B. Concepts and definitions:

(a) Recording of gear: paper logbook

- Current legislation requires that the logbook shall contain information on the type of gear, mesh size and dimension. However, with the exception of certain conditions under recovery measures, the recording of the dimensions of the gear (other than mesh size, where applicable) is not mandatory. Figure 82 shows a typical logbook entry for a vessel using beam trawls (entry number 8) of 80 mm mesh size (entry number 9). The master has also filled in the size of the gear as being two beam trawls of beam length 9 m each (entry number 10).

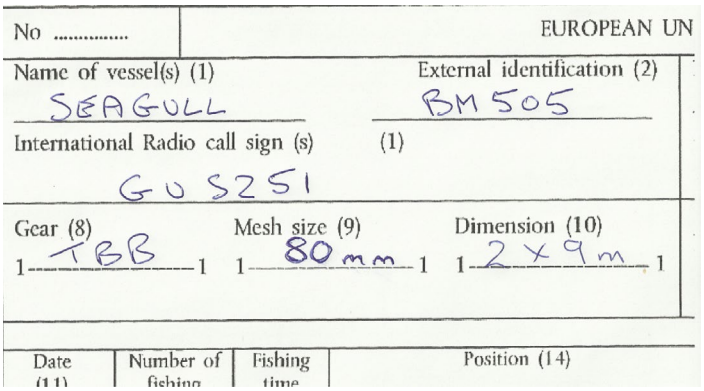
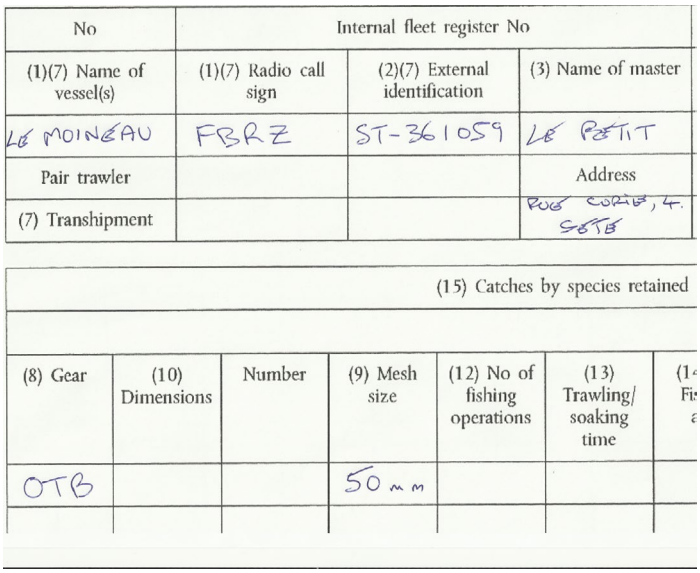

No .....
EUROPEAN UN
Name of vessel(s) (1)
SEAGULL
External identification (2)
BM 505
International Radio call sign (s)
(1)
GUS251
Gear (8)
1 TBB 1
Mesh size (9)
1 80 mm 1
Dimension (10)
1 2 x 9m 1
Date (11)
Number of fishing
Fishing time
Position (14)

Figure 82 — *Logbook gear entry*

- For the Mediterranean, an alternative model of logbook may be used; an example is shown at Figure 83, where the master has declared the gear as a bottom otter trawl of mesh size 50 mm.

([393]) Articles 14(2) and 15(1) of Council Regulation (EC) No 1224/2009, Annex X of Commission Implementing Regulation No 404/2011.

([394]) Article 14(2) of Council Regulation (EC) No 1224/2009, Articles 29, 31(1), 31, 33 and Annexes VI, VII, X of Commission Implementing Regulation No 404/2011.



No	Internal fleet register No		
(1)(7) Name of vessel(s)	(1)(7) Radio call sign	(2)(7) External identification	(3) Name of master
LE MOINEAU	FBRZ	ST-361059	LE PETIT
Pair trawler			Address
(7) Transhipment			RUE CORIE, 4. SETE

(15) Catches by species retained						
(8) Gear	(10) Dimensions	Number	(9) Mesh size	(12) No of fishing operations	(13) Trawling/ soaking time	(1 Fi
OTB			50 mm			

Figure 83 — *Mediterranean logbook gear entry*

(b) **Recording of gear: ERS**

- Current legislation requires that the ERS shall contain information on the type of gear, mesh size and dimension. However, the recording of the dimensions of the gear (other than mesh size, where applicable) is only mandatory for certain gears in certain fisheries.
- The main elements which will be recorded in the ERS are: gear type and mesh size (where applicable). Optional information on gear dimensions may be given ([395]).

Part C. Data and information sources

The logbook will contain the master's declaration of the type of gear in use and, where applicable, the mesh size.

The FAO alphanumeric codes for each gear are listed in Annex 1 ([396]).

The inspector will have already established, by inspection, the type of gear in use and where applicable, the determined mesh size.

Part D. Methodology

Having both the information from the physical inspection of the gear and the logbook, the inspector can now compare the two, to ensure that the correct gear type has been declared by the master and, where applicable, the correct mesh size.

In instances where the master claims that the gear in use is not on board the vessel (for example, where active gear has been lost or static gear has been left at sea) the inspector can still check whether the gear found on board is legal, according to the following two scenarios:

(a) It could be that the carriage of a certain gear is prohibited in the area where the vessel has operated and that it is not necessary to demonstrate that the gear has been used.

(b) Where the use of a certain gear is prohibited in the area where the vessel has operated, and that gear has been found aboard the vessel, then it will be up to the inspector to decide whether to investigate further with a view to obtaining proof that the gear has actually been used. Such a decision would depend on the inspector's

([395]) Annex X of Commission Implementing Regulation No 404/2011.

([396]) Annex XI of Commission Implementing Regulation (EU) 404/2011.

knowledge of the normal method of operation of the vessel and the likelihood of any useful proof being obtained. Where the likelihood of any such proof being obtained is minimal, then best practice would be to flag up the vessel on any existing risk analysis system, with a view to a targeted inspection at sea to investigate what gear is actually being used by the vessel.

Chapter 4.2.2 — Check the legality of gear combinations

Part A. Introduction

In order to protect juvenile fish, technical measures have been put in place such as on the mesh sizes of fishing gears which may be used to target certain species. Gears have been split into different mesh size ranges, which correspond to limitations in catch compositions laid down by the regulations. However, industry practices are such that different species may be targeted by different size gears during a fishing voyage. To this end, certain gear combinations are sometimes permitted to be carried on board of a vessel. Any gear which is not part of a permitted combination must be stowed in such a way that it cannot be readily used for fishing; this requirement is to reduce the risk of small mesh gear being used for the illegal capture of certain species.

Part B. Permitted gear combinations

(a) General

- In fisheries in which it is not allowed to use more than one type of gear, any other gear shall be lashed and stowed so that it may not readily be used, in accordance with the following conditions:
  - nets, weights and similar gear shall be disconnected from their trawl boards and towing and hauling wires and ropes;
  - nets which are on or above deck shall be securely lashed and stowed;
  - longlines shall be stowed in lower decks ([397]).

(b) Baltic Sea

Where any gear is used for which cod (*Gadus morhua*) is defined as a target species, no other type of gear shall be kept on board ([398]). Therefore, when any of the gears from the following table is being used, then no other type of gear should be found on board:

Table 5 — *Baltic cod gears (see also chapter 4.2.5 subpart (b))*

GEAR TYPE	MESH SIZE in mm
Trawls, Danish seines and similar gear	≥ 105
Gillnets, entangling nets and trammel nets	110 ≤ and < 156
Gillnets, entangling nets and trammel nets	≥ 157

(c) Regions 2 and 3

- The use, during any fishing voyage, of any combination of towed nets of more than one range of mesh size is prohibited, with the exceptions contained in Annexes VIII to XI of Council Regulation (EC) No 850/98.
- The master of a fishing vessel who is not required to complete a logbook shall not use during a single voyage any combination of towed nets of more than one range of mesh size within Union fishing waters ([399]).
- Whenever more than one net is towed simultaneously by a fishing vessel or by more than one fishing vessel, each net shall be of the same mesh size range ([400]). In practice this means that vessels which tow multiple gears, such as beam trawlers or multiple rig trawlers, must tow gears in the same mesh size range.
- Within ICES Division VIIIc, it is prohibited to carry on board simultaneously pelagic trawls and purse seines ([401]).

([397]) Article 47 of Council Regulation (EC) No 1224/2009.

([398]) Article 13(3) and Annexes II and III of Council Regulation (EC) No 2187/2005.

([399]) Article 4(2)(c) of Council Regulation (EC) No 850/98.

([400]) Article 4(2)(e) of Council Regulation (EC) No 850/98.

([401]) Article 23(2) of Council Regulation (EC) 850/98.

(d) **Mediterranean Sea**

For vessels using towed gears to target species other than sardines (*Sardina pilchardus*) or anchovy (*Engraulis encrasicolus*), only two types of gear are authorised, as summarised in Table 4. Only one of these types of gear may be used or kept on board at any time ([402]).

Table 6 — *Mediterranean towed gear types*

COD-END MESH TYPE	MINIMUM MESH SIZE in mm
Square mesh	40
Diamond mesh	50 (of an acknowledged size selectivity that is equivalent to or higher than that of 40 mm square mesh)

(e) **Black Sea**

There are currently no restrictions on gear combinations in force in the Black Sea.

Part C. Gear combinations-methodology

The inspector should establish the legality of any gear combination found on board by performing the following procedure:

- Establish what gear combination, if any, is on board or in use.
- Check that any gear combination found complies with the relevant requirements, bearing in mind the area of operation and where applicable, any catch composition conditions imposed.
- Due to the complexity of the requirements, best practice would be for the inspector to be in possession of a summary of these requirements relevant to the area of inspection activities. This would allow the inspector to cross-reference any apparent infringement before taking appropriate enforcement action.

([402]) Article 9(3) of Council Regulation (EC) No 1967/2006, as amended by Article 28(2) of Council Regulation (EU) No 1343/2011.

Chapter 4.2.3 — Check the legality of the gear geometry

Part A. Introduction

Current legislation requires certain gears in specified fisheries to conform to certain restrictions on either geometry or dimensions, either to ensure that their selectivity is not reduced or to limit the possibility of illegal practices.

Part B. Restrictions on active gear

(a) Towed gear

One of the main influences on selectivity in towed gears is the hanging ratio of the rear of the net; the more meshes there are in a given circumference, the less area is presented for the fish to escape. The restrictions on balloon cod-ends, cod-end circumference and the relationship between the circumferences of the cod-end and lengthening piece are all designed to limit this effect.

- Balloon cod-end

A balloon cod-end is where the cod-end tapers from the rear end to the front, i.e. the circumference of the cod-end increases from the front to the rear. The use of a balloon cod-end is prohibited in all EU waters, except the Black Sea, but the method of establishing the cod-end circumference varies by area, as follows:

- Baltic Sea: The cod-end circumference is defined as the number of meshes around the net at right angles to the longitudinal axis of the net, excluding meshes in the joining or selvedges ([403]). It is prohibited to use any cod-end in which the number of equal sized meshes around any circumference of the cod-end increases from the front end to the rear end ([404]).
- Regions 2 and 3: The cod-end circumference is defined as the number of meshes around the net at right angles to the longitudinal axis of the net, excluding meshes in the selvedges ([405]). This number must not increase from the front end to the rear of the cod-end; this prohibition applies to all towed nets with a mesh size equal to or greater than 55 mm ([406]).
- Mediterranean Sea:
  - For diamond mesh cod-ends, the cod-end circumference is defined as the number of meshes in the circumference of the net (excluding the selvedges) multiplied by the determined mesh size ([407]). However, the definition of a balloon cod-end refers to the number of meshes; it is prohibited to use any cod-end in which the number of equal sized meshes around any circumference of the cod-end increases from the front end to the rear end ([408]).
  - For square-mesh cod-ends, the cod-end circumference is defined as the number of meshes in the circumference of the net multiplied by the mesh side length ([409]).

- Cod-end circumference

There are regional limitations on the size of the cod-end circumference, as follows:

- Baltic Sea: it is prohibited to use any demersal trawl, Danish seine or similar towed net having more than 100 or less than 40 open diamond meshes in any circumference of the cod-end, excluding the joining and selvedges. This provision shall apply to nets of which the mesh size is equal to or greater than 90 millimetres ([410]).
- Regions 2 and 3: it is prohibited to have on board or use any demersal trawl, Danish seine or similar towed net having more than 100 meshes in any circumference

([403]) Article 6(e) of Council Regulation (EC) No 2187/2005.

([404]) Article 6(a) of Council Regulation (EC) No 2187/2005.

([405]) Article 6 of Council Regulation (EC) 850/98.

([406]) Article 6(2) of Council Regulation (EC) 850/98.

([407]) Article 11(2) and Annex I(j) of Council Regulation (EC) No 1967/2006.

([408]) Article 11(2) and Annex I(B)(1) of Council Regulation (EC) No 1967/2006.

([409]) Article 11(2) and Annex I(k) of Council Regulation (EC) No 1967/2006.

([410]) Article 6(e) of Council Regulation (EC) No 2187/2005.

of the cod-end, excluding the joining and selvedges. This provision shall apply to nets of which the mesh size lies within the range 90 to 119 millimetres ([411]).

— Mediterranean and Black Seas: no restrictions.

- Relationship between cod-end and lengthening piece

There are regional limitations on the relationship between the circumferences of the cod-end and the lengthening piece, as follows:

— Baltic Sea: The circumference is defined as the number of meshes around the net at right angles to the longitudinal axis of the net, excluding meshes in the joining or selvedges ([412]). It is prohibited to use any extension piece in which the circumference at any point is smaller than the circumference of the foremost end of the cod-end to which the extension piece is joined ([413]).

— Regions 2 and 3: The circumference is defined as the number of meshes around the net at right angles to the longitudinal axis of the net, excluding meshes in the selvedges ([414]). Any circumference of the lengthening piece shall not be less than the circumference of the front-end of the cod-end; this prohibition applies to all towed nets with a mesh size equal to or greater than 55 millimetres ([415]).

— Mediterranean Sea:

  - Diamond mesh: The circumference is defined as the number of meshes in the circumference of the net (excluding the selvedges) multiplied by the determined mesh size ([416]). The circumference of the rearmost part of the trawl body (the tapered section) or of the extension/lengthening piece (the untapered section) shall not be smaller than the circumference of the front end of the cod-end ([417]).
  - Square mesh: The circumference is defined as the number of meshes in the circumference of the net (excluding the selvedges) multiplied by the mesh side length ([418]). In practice, it would be easier to measure the length of a number of meshes along the bar direction, to give an average figure for the mesh side length. In the case of square mesh cod-ends, the circumference of the rearmost part of the trawl body or of the extension/lengthening piece shall be from two to four times the circumference of the front end of the cod-end ([419]).

— Black Sea: No restrictions

- Square-meshed netting

Where square-meshed netting is deployed in towed gear, then it must conform to certain regional requirements, as follows:

— Baltic Sea: Square-mesh netting shall be knotless braided single twine or netting with similar proven selective properties ([420]).

— Regions 2 and 3: Any square-mesh panel shall be constructed of knotless netting or of netting constructed with non-slip knots, and shall be inserted in such a way that the meshes remain fully open at all times while fishing ([421]).

— Mediterranean Sea: Any square-mesh panel shall not be obstructed in any way by either internal or external attachments. It shall be constructed of knotless netting or of netting constructed with non-slip knots, and shall be inserted in such a way that the meshes remain fully open at all times while fishing ([422]).

— Black Sea: No requirements.

- Mesh geometry

The geometry of the meshes themselves must conform to certain regional requirements, as follows:

— Baltic Sea: The use of any cod-end not completely composed of diamond or square meshes is prohibited where the mesh size of the cod-end is equal or greater than 32 mm ([423]);

([411]) Article 6(a) of Council Regulation (EC) 850/98.

([412]) Article 6(e) of Council Regulation (EC) No 2187/2005.

([413]) Article 6(b) of Council Regulation (EC) No 2187/2005.

([414]) Article 6 of Council Regulation (EC) 850/98.

([415]) Article 6(3) of Council Regulation (EC) 850/98.

([416]) Article 11(2) and Annex I(j) of Council Regulation (EC) No 1967/2006.

([417]) Article 11(2) and Annex I(B)(2) of Council Regulation (EC) No 1967/2006.

([418]) Article 11(2) and Annex I(k) of Council Regulation (EC) No 1967/2006.

([419]) Article 11(2) and Annex I(B)(2) of Council Regulation (EC) No 1967/2006.

([420]) Appendix 1(e)(ii) of Council Regulation (EC) No 2187/2005.

([421]) Article 7(2)(d) of Council Regulation (EC) 850/98.

([422]) Article 11(2) and Annex I(B)(3) of Council Regulation (EC) No 1967/2006.

([423]) Article 6(c) of Council Regulation (EC) No 2187/2005.

— Regions 2 and 3: The carrying on board or use of any cod-end not completely composed of diamond or square meshes is prohibited where the mesh size of the cod-end is greater than 31 mm ([424]);
— Mediterranean Sea: The carrying on board or use of any cod-end not completely composed of diamond or square meshes is prohibited except for boat seines where the mesh size of the cod-end is less than 10 mm ([425]).
— Black Sea: No requirements.

- Twines: There are regional restrictions on the twines which may be deployed, as follows:
  — Baltic Sea: The maximum permitted twine thickness for towed gears is as follows ([426]):
    — single twine — 6 mm,
    — double twine — 4 mm each twine,
    — the above restrictions do not apply to the rear most row of meshes in the cod-end if fitted with a codline.
  — Regions 2 and 3: The maximum permitted twine thickness for towed gears is as follows ([427]):
    — single twine — 8 mm,
    — multiple twine — 12 mm in total (the twines should be of approximately the same thickness),
    — the above restrictions do not apply to pelagic trawls.
  — Mediterranean Sea:
    — the maximum permitted twine thickness in the cod-end of any towed gear is 3 mm ([428]),
    — the maximum permitted twine thickness in any other part of towed bottom gear is 6 mm ([429]),
    — the carrying on board or use of multiple twine netting in any part of the cod-end is prohibited ([430]).
    — the monofilament or twine diameter of the bottom-set gillnet shall not exceed 0,5mm ([431]).

([424]) Article 9 of Council Regulation (EC) 850/98.

([425]) Article 11(2) and Annex I(B)(5) and (6) of Council Regulation (EC) No 1967/2006.

([426]) Appendix 2(c) of Council Regulation (EC) 2187/2005.

([427]) Article 8 of Council Regulation (EC) 850/98.

([428]) Article 11(2) and Annex I(B)(11) of Council Regulation (EC) No 1967/2006.

([429]) Article 11(2) and Annex I(B)(13) of Council Regulation (EC) No 1967/2006.

([430]) Article 11(2) and Annex I(B)(12) of Council Regulation (EC) No 1967/2006.

([431]) Article 3 and Annex II of Council Regulation (EC) No 1967/2006.

([432]) Article 13(3) of Council Regulation (EC) No 1967/2006.

([433]) Article 12 and Annex II(2) of Council Regulation (EC) No 1967/2006.

([434]) Article 10 of Council Regulation (EC) No 1967/2006.

(b) **Encircling gear**

There are restrictions on the geometry of encircling gears in the Mediterranean only, as follows:

- A purse seine shall not be used where the depth of water is less than 70 % of the overall drop (depth) of the seine itself ([432]).
- For all surrounding nets, except those used to catch tuna, the maximum length of netting is restricted to 800 m and the maximum drop to 120 m ([433]).

Part C. Restrictions on passive gear

(a) **Longlines**

There are certain restrictions on the geometry of longlines in the Mediterranean Sea only, as follows:

- Size of hooks: the use or keeping on board of longlines with hooks of less than 3.95 cm total length and a width of less than 1.65 cm is prohibited. This prohibition only applies to vessels having on board more than 20 % by live weight of red sea bream (*Pagellus bogaraveo*) ([434]).

- Number of hooks:
  - bottom-set longlines ([435]):
    - the maximum number of hooks allowed to be used or carried on board is 1 000 per person on board, with a maximum upper limit of 5 000 hooks per vessel;
    - however, for vessels undertaking trips of more than 3 days, the maximum upper limit is increased to 7 000 hooks.
      - surface-set longlines ([436]):
    - for vessels having on board more than 70 % by live weight of bluefin tuna (*Thunnus thynnus*), the maximum number of hooks allowed to be used or carried on board is 2 000 hooks per vessel.
    - for vessels having on board more than 70 % by live weight of swordfish (*Xyphias gladius*), the maximum number of hooks allowed to be used or carried on board is 3 500 hooks per vessel.

      Note that the ICCAT allows only 2 800 hooks per vessel targeting swordfish. The size of the hook shall not be less than 7 cm and the pelagic longlines will be of maximum 30 nautical miles ([437]).
    - for vessels having on board more than 70 % by live weight of albacore (*Thunnus alalunga*), the maximum number of hooks allowed to be used or carried on board is 5 000 hooks per vessel.
    - however, vessels undertaking trips of more than 2 days may have on board an equivalent number of spare hooks.

(b) **Bottom-set nets**

There are regional restrictions on the maximum lengths of such nets, as follows:

- Baltic Sea: the maximum length of any gillnet, entangling net or trammel net which may be used is 9 km for vessels of overall length up to and including 12 m, and 21 km for vessels of over 12 m ([438]).
- Regions 2 and 3: Use of gillnets in ICES Zones IIIa, IVa, Vb, VIa, VIb, VIIb, c, j, k, VIII, IX, X and XII ([439])
  - Union vessels shall not deploy gillnets, entangling nets and trammel nets at any position where the charted depth is greater than 200 m in ICES Zones IIIa, IVa, Vb, VIa, VIb, VII b, c, j, k, and XII east of 27° W, and in ICES zones VIII, IX, X.
  - By way of derogation there are allowances to deploy these gears with a certain mesh size in depths over 200 m but less than 600 m, for a certain immersion time. The ship that deploys these gears must hold a special fixed net fishing permit issued by the flag Member State.
- Mediterranean Sea: the maximum permissible length of bottom-set nets which may be carried aboard or set is governed by certain factors which may include: the type of net, the drop of the net and the number of crew. These conditions may be summarised as follows ([440]):
  - The maximum drop of a trammel net shall not exceed 4 m.
  - The maximum drop of a bottom-set gillnet shall not exceed 10 m, except where the net does not exceed 500 m in length, when the maximum depth shall be 30 m.
  - The maximum drop of a combined bottom-set gillnet shall not exceed 10 m, except where the net does not exceed 500 m in length, when the maximum depth shall be 30 m.
  - The maximum total length of combined bottom-set gillnet which may be used or carried aboard per vessel shall be 2 500 m. It shall be prohibited to use or carry

([435]) Article 12 and Annex II(4) of Council Regulation (EC) No 1967/2006.

([436]) Article 12 and Annex II(6) of Council Regulation (EC) No 1967/2006.

([437]) ICCAT Recommendation 2013-04 for the management measures for Mediterranean Swordfish.

([438]) Article 8(1) of Council Regulation (EC) No 2187/2005.

([439]) Articles 11 and 34b of Council Regulation (EC) 850/98.

([440]) Article 12 and Annex II(3) of Council Regulation (EC) No 1967/2006.

on board more than 500 m of combined bottom-set gillnet if its drop is greater than 10 m.

— The maximum total length of trammel net, bottom-set gillnet which may be used or carried aboard per vessel shall be 4 000 m for a single fisherman, with a further 1 000 m for a second fisherman and a further 1 000 m for a third fisherman, up to a maximum of 6 000 m. It shall be prohibited to use or carry on board more than 500 m of bottom-set gillnet if its drop is greater than 10 m.

— The maximum permitted twine diameter of a bottom-set gillnet or the gillnet part of a combined net is 0.5 millimetres.

- Black Sea:
  — The minimum mesh size for bottom set gillnets, when used to catch turbot, shall be 400 mm ([441]).

(c) **Traps**

In the Mediterranean Sea only, there is a restriction of a maximum number of 250 traps per vessel for the deep-water crustacean fishery ([442]).

Part D. Gear geometry-methodology

The inspector should establish the legality of the gear in regards to its geometry by performing the following procedure:

- Establish whether any restrictions apply to the geometry of the gear, bearing in mind the area of operation, the period and the type of gear in use.
- If any restrictions apply, verify that the gear geometry conforms to the relevant requirements.
- Due to the complexity of the requirements, best practice would be for the inspector to be in possession of a summary of these requirements relevant to the area of inspection activities. This would allow the inspector to cross-reference any apparent infringement before taking appropriate enforcement action.

([441]) Article 11 a of Council Regulation (EC) No 850/98.

([442]) Article 12 and Annex II(5) of Council Regulation (EC) No 1967/2006.

Chapter 4.2.4 — Check the legality of the attachments

Part A. Introduction

Having identified any attachments to the gear, the inspector will then need to check that they comply with the regulations by measuring the relevant parameters of the attachment and checking these against the legal requirements. These requirements can vary between geographical areas and are identified in the text.

Part B. Measurement of attachments and checking of legality

There are two distinct pieces of legislation which deal with permitted attachments, one for Regions 2 and 3 and the Mediterranean Sea ([443]), and one for the Baltic Sea ([444]). However, there are some changes and additions to the permitted attachments in the Mediterranean. To this end, Part B has been sub-divided into three sections, dealing with: Regions 2 and 3 and the Mediterranean Sea; additions for the Mediterranean Sea; and the Baltic Sea.

At present, there are no restrictions on attachments for the Black Sea.

Regions 2 and 3

(a) **Bottom-side chafer**

- *Legal requirements* ([445]): Bottom-side chafers may be attached only to the outside of the trawl and only to the lower half of any part of the trawl. They may be fastened only at their front and side edges.
- *Methodology*: The inspector should verify that the chafer(s) are only on the outside of the net on the bottom section and that the chafer(s) are not connected at their rear edge. NB: bottom-side chafers can be made of any material, including small-mesh netting, and the inspector should not be side-tracked into thinking that such netting is illegal.

(b) **Type A top-side chafer**

- *Legal requirements* ([446]): A type A top-side chafer must:
  - be rectangular;
  - be of a mesh size equal to at least that of the cod-end;
  - have a width of at least one and a half times the width of the cod-end which is covered;
  - be attached by its forward and/or lateral edges only to the upper half of the outside of the cod-end;
  - not extend more than four meshes forward of the rear lifting strap. If a lifting strap is not fitted the top-side chafer shall be fastened in such a manner that it does not cover more than the last rear third of the cod-end;
  - end not less than four meshes in front of the codline;
  - not be used in conjunction with any other top-side chafer;
  - not be used in conjunction with strengthening bags except for trawls having a mesh size equal to or less than 60 mm;
  - not be used in the Skagerrak and the Kattegat.
- *Methodology*: The inspector should verify that:
  - the chafer is rectangular in shape;

([443]) Commission Regulation (EEC) No 3440/84.

([444]) Council Regulation (EC) No 2187/2005.

([445]) Article 4 of Commission Regulation (EEC) No 3440/84.

([446]) Articles 5(2), (4), (5) and (6) of Commission Regulation (EEC) No 3440/84.

— the chafer is of a mesh size equal to at least that of the cod-end; the mesh size of the chafer should be determined in accordance with the provisions of the regulation ([447]);
— the width of the chafer is at least 1.5 times that of the cod-end, the widths must be ascertained by stretching the netting in a direction perpendicular to the long axis of the cod-end. In practice, this may prove difficult and it may be easier to measure the width of a number of meshes in the chafer and calculate the total width on a pro rata basis, and then apply a similar methodology to the cod-end;
— the chafer is not attached by its rear edge;
— the chafer is attached to the outside only of the cod-end;
— the chafer does not extend more than 4 meshes forward of the rearmost lifting strap or, if no lifting strap is present, does not cover more than the last rear third of the cod-end. Here, a third should be taken to mean one third of the stretched length of the cod-end measured in the direction of the longitudinal axis of the net. The length of the chafer should be measured in a similar manner;
— there are at least 4 meshes of cod-end protruding beyond the rear edge of the chafer;
— only one top-side chafer is in use;
— if a top-side chafer and a strengthening bag are both in use, that the cod-end has a mesh size equal to or less than 60 mm;
— if the vessel is operating in either the Skagerrak or the Kattegat, that no type A top-side chafer is in use.

(c) **Type B top-side chafer**

- *Legal requirements* ([448]): A type B top-side chafer must:
  — be rectangular;
  — be of the same twine thickness as the cod-end netting;
  — have a mesh size of twice that of the cod-end;
  — be attached only its four edges in such a way that, at the points of attachment, the side of each mesh coincides with two sides of the meshes of the cod-end;
  — not be used in conjunction with any other top-side chafer;
  — not be used in conjunction with strengthening bags except for trawls having a mesh size equal to or less than 60 mm;
  — not be used in the Skagerrak and the Kattegat on trawls having a mesh size larger than 70 mm.
- *Methodology*: The inspector should verify that the chafer:
  — is rectangular in shape;
  — is of the same twine thickness as the cod-end; the twine thicknesses should be determined in accordance with the provisions of the regulation ([449]);
  — has a mesh size of twice that of the cod-end; the mesh size of the chafer should be determined in accordance with the provisions of the regulation ([450]);
  — is attached at its four edges in such a way that, at the points of attachment, the side of each mesh coincides with two sides of the meshes of the cod-end;
  — is not used in conjunction with any other top-side chafer;
  — is not used in conjunction with strengthening bags on trawls having a mesh size greater than 60 mm;
  — is not used in the Skagerrak and the Kattegat on trawls having a mesh size larger than 70 mm.

([447]) Commission Regulation (EC) No 517/2008.

([448]) Articles 5(3), (4), (5) and (7) of Commission Regulation (EEC) No 3440/84.

([449]) Commission Regulation (EC) No 517/2008

([450]) Commission Regulation (EC) No 517/2008

(d) **Strengthening bag — EU waters except Skagerrak and Kattegat**

- *Legal requirements* ([451])
  - — A strengthening bag shall have at least the same dimensions (length and width) as that part of the cod-end to which it is attached; this shall not apply to nets having a mesh size equal to or less than 60 millimetres.
  - — In the Mediterranean, the circumference of the strengthening bag shall not be less than 1.3 times that of the cod-end for bottom trawls ([452]).
  - — It is prohibited to use more than one strengthening bag except when attached to trawls having a mesh size equal to or less than 60 millimetres, for which two strengthening bags may be used.
  - — The mesh size of the strengthening bag shall be equal to at least twice that of the cod-end. If a second strengthening bag is used, its minimum mesh size shall be 120 millimetres.
  - — In the Mediterranean, for bottom trawlers using a cod-end of less than 60 mm and by way of derogation from the requirements above, the minimum mesh size for any strengthening bag shall be 120 mm. For cod-ends of 60 mm and above, the mesh size of the strengthening bag shall be equal to at least twice that of the cod-end ([453]).
  - — It is prohibited to use a strengthening bag which extends forward of the cod-end.
  - — If a strengthening bag is constructed of sections of cylindrical netting, the sections may not overlap by more than four meshes at the points of attachment.
  - — Strengthening bags attached to trawls having a mesh size greater than 60 mm shall not extend more than 2 m in front of the rear lifting strap.
- *Methodology:* The inspector should verify that:
  - — In the case of nets having a mesh size greater than 60 mm, the strengthening bag is at least as wide and as long as the cod-end; the dimensions should be measured as the stretched width in the specified direction. In practice, this may prove difficult and it may be easier to measure the width of a number of meshes in the strengthening bag and calculate the total width on a pro rata basis, and then apply a similar methodology to the cod-end.
  - — In the Mediterranean, for bottom trawls, the circumference of the strengthening bag is not less than 1.3 times that of the cod-end.
  - — The mesh size of the strengthening bag is equal to at least twice that of the cod- end and for bottom trawls in the Mediterranean is at least 120 mm. The mesh size of the strengthening bag should be determined in accordance with the provisions of the regulation ([454]).
  - — Only one strengthening bag is in use, except in the case of trawls having a mesh size equal to or less than 60 mm, for which two strengthening bags may be used.
  - — The mesh size of any second strengthening bag is at least 120 mm.
  - — The strengthening bag does not extend forward of the cod-end.
  - — If a strengthening bag is constructed of sections of cylindrical netting, the sections do not overlap by more than four meshes at the points of attachment.
  - — For trawls having a mesh size greater than 60 mm, the strengthening bag does not extend more than 2 m in front of the rear lifting strap.

(e) **Strengthening bag — Skagerrak and Kattegat**

- *Legal requirements* ([455])
  - — a strengthening bag shall have at least the same dimensions (length and width) as that part of the cod-end to which it is attached; this shall not apply to nets having a mesh size equal to or less than 60 mm;
  - — it is prohibited to attach a strengthening bag to trawls having a mesh size larger than 70 mm;

([451]) Articles 6(1), (3),(4), (10), (11), (12) and (13) of Commission Regulation (EEC) No 3440/84.

([452]) Article 11(2) and Annex I(B)(10) of Council Regulation (EC) No 1967/2006.

([453]) Article 11(2) and Annex I(B)(7) of Council Regulation (EC) No 1967/2006.

([454]) Commission Regulation (EC) No 517/2008.

([455]) Articles 6(1), (6), (7), (8), (9), (10), (11), (12) and (13) of Commission Regulation (EEC) No 3440/84.

— is prohibited to use a strengthening bag and a top-side chafer simultaneously;
— is prohibited to use a strengthening bag of which the mesh size is less than 80 mm;
— is prohibited to use more than one strengthening bag except when attached to trawls having a mesh size of less than 16 mm, for which two strengthening bags may be used. In such a case, the mesh size of one of these strengthening bags may be less than 80 mm but not less than 35 mm;
— it is prohibited to use a strengthening bag which extends forward of the cod-end;
— if a strengthening bag is constructed of sections of cylindrical netting, the sections may not overlap by more than four meshes at the points of attachment;
— strengthening bags attached to trawls having a mesh size greater than 60 mm shall not extend more than 2 m in front of the rear lifting strap.

- *Methodology*: The inspector should verify that:
  — in the case of nets having a mesh size greater than 60 mm, the strengthening bag is at least as wide and as long as the cod-end; the dimensions should be measured as the stretched width in the specified direction. In practice, this may prove difficult and it may be easier to measure the width of a number of meshes in the strengthening bag and calculate the total width on a pro rata basis, and then apply a similar methodology to the cod-end;
  — in the case of nets having a mesh size greater than 70 mm, no strengthening bag is attached;
  — where a strengthening bag is attached, no top-side chafer is in use;
  — the mesh size of any strengthening bag is at least 80 mm;
  — only one strengthening bag is in use, except in the case of trawls having a mesh size of less than 16 mm, for which two strengthening bags may be used;
  — the mesh size of any second strengthening bag is equal to or greater than 35 mm;
  — the strengthening bag does not extend forward of the cod-end;
  — if a strengthening bag is constructed of sections of cylindrical netting, the sections do not overlap by more than four meshes at the points of attachment;
  — for trawls having a mesh size greater than 60 mm, the strengthening bag does not extend more than 2 m in front of the rear lifting strap.

(f) Chafing or protection piece

- *Legal requirements* ([456])
  — it is prohibited to use a chafing piece if a lifting strap is not attached to the cod-end;
  — it is prohibited to use a chafing piece which is more than 1 m long;
  — the chafing piece may be attached only in front of and behind each lifting strap;
  — the mesh size of the chafing piece shall be at least equal to that of the cod-end;
  — the circumference of the chafing piece shall be the same as that of the cod-end or strengthening bag at the point of attachment; it shall be compared to that of the cod-end or the strengthening bags, if any, by stretching them with the same force.
- *Methodology*: The inspector should verify that:
  — where a chafing piece is fitted, a lifting strap is also fitted;
  — the chafing piece is not more than 1 m long (stretched length);
  — the chafing piece is attached only in front of and behind the lifting strap, i.e. it is attached directly under the lifting strap;
  — the mesh size of the chafing piece is at least equal to that of the cod-end; the mesh size of the chafing piece should be determined in accordance with the provisions of the regulation ([457]);

([456]) Article 7 of Commission Regulation (EEC) No 3440/84.

([457]) Commission Regulation (EC) No 517/2008.

— the circumference of the chafing piece is the same as that of the cod-end or strengthening bag at the point of attachment. The circumference in each case being measured as the number of meshes multiplied by the relevant determined mesh size.

(g) Codline

- *Legal requirements* ([458]):
  — The codline shall be attached at a distance which is not more than 1 m from the rear meshes of the cod-end, which may be folded back into the cod-end. However, if a torquette is attached, the codline shall be passed through the rearmost meshes of the cod-end.
  — More than one codline may be used per trawl. A codline may not enclose a bottom-side chafer or top-side chafer.
  — By way of derogation of the provisions of the first bullet point, it shall be permitted for vessels operating pump-aboard systems to attach a codline at a distance which is no more than 10 m from the rear meshes of the cod-end, when fishing with trawls with a mesh size of less than 70 mm.
- *Methodology*: The inspector should verify that:
  — the codline is not more than 1 m from the rear meshes of the cod-end, unless the vessel is using a net of mesh size less than 70 mm and pumping the fish aboard, in which case the codline can be up to 10 m from the rear meshes of the cod-end;
  — no codline is enclosing any chafer.

(h) Round straps

- *Legal requirements* ([459]):
  — the length of a round strap shall be not less than 40 % of the circumference of the cod-end, the circumference being measured as the product of the number of meshes in the circumference of the cod-end multiplied by the actual mesh size, except for the rearmost round strap, called a 'back strap', if it is attached not more than 2 m from the codline meshes, measured when the meshes are stretched lengthwise;
  — the distance separating two successive round straps shall be not less than 1 m;
  — a round strap may encircle the strengthening bags but may not encircle a top-side or bottom-side chafer.
- *Methodology*: The inspector should verify that:
  — the length of any round strap is not less than 40 % of the circumference of the cod-end. The regulation requires that the circumference of the cod-end is calculated by taking the actual mesh size of the cod-end (which will already have been established in accordance with the provisions of the regulation ([460]) and multiplying this by the number of meshes. NB: this is a departure from all previously mentioned attachments, where lengths and widths are to be established by taking the stretched lengths of the netting involved;
  — if the back strap does not comply with the above requirement, then it is attached not more than 2 m from the codline. NB: in this case, the measurement is taken as the stretched length of the relevant section of the cod-end;
  — any two successive round straps are at least 1 m apart;
  — no round strap is encircling any chafer.

([458]) Article 8 of Commission Regulation (EEC) No 3440/84.

([459]) Article 10 of Commission Regulation (EEC) No 3440/84.

([460]) Commission Regulation (EC) No 517/2008.

(i) Lifting strap

- *Legal requirements* ([461]):

the minimum length of lifting straps shall conform to the same rules as those governing round straps, except that the lifting strap nearest to the codline may be shorter.

- *Methodology*:

The inspector should use the same methodology for length as applied to round straps, bearing in mind that the rearmost lifting strap should not be measured. In practice, very few vessels use more than one lifting strap. The inspector should verify firstly whether more than one lifting strap is in use, if not, then no further verification is required.

(j) Flapper

- *Legal requirements* ([462]):
  - the flapper shall have a mesh size at least equal to that of the cod-end;
  - the flapper shall be attached at its front end and may be attached at its lateral edges inside the cod-end or in front of the cod-end;
  - the distance from the point of forward attachment of the flapper to the rear end of the cod-end shall be at least three times the length of the flapper;
  - in the Skagerrak and the Kattegat the length of the flapper shall not extend more than the length of 20 meshes into the cod-end.
- *Methodology*: The inspector should verify that:
  - the mesh size of the flapper is at least equal to that of the cod-end. The mesh size should be determined in accordance with the provisions of the regulation ([463]); in practice, this could prove difficult, as the flapper is inside the trawl and can be difficult to access. In addition, it is not always 20 meshes long and may require two series of parallel measurements in the N-direction of the netting;
  - the distance from the point of forward attachment of the flapper to the rear end of the cod-end is at least three times the length of the flapper. No methodology for the determination of length is given in the legislation; common sense would dictate that the same methodology should be used for the determination of both the lengths;
  - in the Skagerrak and the Kattegat the length of the flapper does not extend more than the length of 20 meshes into the cod-end.

NB: Flappers were used mostly on side trawlers, which have been mainly been replaced by stern trawlers, where flappers are rarely in use. The inspector should not waste too much time looking for something which probably doesn't exist and, even if it does exist, has a minimal impact on selectivity.

(k) Sieve netting

- *Legal requirements* ([464]):
  - the sieve netting must have a mesh size which is at least twice the mesh size of the cod-end;
  - the sieve netting shall be attached inside the trawl in front of the cod-end and shall not extend into the cod-end by more than one third of the length of the cod- end;
  - it may be attached to the trawl at all edges;
  - up to two pieces of sieve netting may be used at the same time, provided that these are attached to the upper half and lower half of the trawl respectively and do not overlap at any point.

([461]) Article 9 of Commission Regulation (EEC) No 3440/84.

([462]) Article 11 of Commission Regulation (EEC) No 3440/84.

([463]) Commission Regulation (EC) No 517/2008

([464]) Article 12 of Commission Regulation (EEC) No 3440/84.

- *Methodology*: The inspector should verify that:
  — the sieve netting has a mesh size which is at least twice the mesh size of the cod-end; the mesh size of the sieve netting should be established in accordance with the provisions of the regulation ([465]);
  — the sieve netting does not extend into the cod-end by more than one third of the length of the cod-end. No methodology for the determination of length is given in the legislation; common sense would dictate that the same methodology should be used for the determination of both the lengths;
  — no more than two pieces of sieve netting are being used at the same time;
  — if two pieces of sieve netting are being used, they are attached to the upper half and lower half of the trawl respectively and do not overlap at any point.

(l) Strengthening rope

- *Legal requirements* ([466]):

It is prohibited to attach strengthening ropes inside the cod-end or lengthening piece.

- *Methodology*: The inspector should verify that:

there are no strengthening ropes inside the cod-end or lengthening piece, bearing in mind that strengthening ropes may be attached to the outside of the cod-end or lengthening piece and to any other part of the net, either inside or outside.

(m) Torquette

- *Legal requirements* ([467]):
  — the torquette may be folded back into the cod-end;
  — the mesh size of the torquette shall not be less than the mesh size of the cod-end;
  — the torquette shall be attached at its forward edge only and no further forward than the last five meshes of the cod-end and shall not extend backwards more than 1 m from the rear of the last meshes of the cod-end.
- Methodology: The inspector should verify that:
  — the mesh size of the torquette is not less than the mesh size of the cod-end, the mesh size of the torquette should be established in accordance with the provisions of the regulation ([468]);
  — the torquette is attached at its forward edge only;
  — the torquette is attached within the last five meshes of the cod-end;
  — the torquette does not extend backwards more than 1 m from the rear of the last meshes of the cod-end.

(n) Median lacing of a trouser cod-end

There are no legal requirements for a median lacing, it is sufficient that the inspector is aware that such a device is permitted.

Mediterranean Sea

(a) Pocket type cod-end

As an alternative to a cod line, the cod-end may be emptied by a zip-fastener type of closure mechanism, which may be fitted in either a transversal or longitudinal direction.

- *Legal requirements* ([469]):
  — any transversal zip-fastener shall be attached within 1 m of the rear of the cod-end;
  — any pocket type cod-end shall have only one opening for emptying.

([465]) Commission Regulation (EC) No 517/2008.

([466]) Article 13 of Commission Regulation (EEC) No 3440/84.

([467]) Article 14 of Commission Regulation (EEC) No 3440/84.

([468]) Commission Regulation (EC) No 517/2008.

([469]) Article 11(2), Annex I(A) and Annex 1(B)(8) of Council Regulation (EC) No 1967/2006.

- *Methodology*: The inspector should check that:
  — any transversal zip-fastener is attached within 1 m of the rear of the cod-end;
  — the cod-end only has one opening for emptying.

(b) **Transversal lacing rope**

- *Legal requirements* ([470]):
  — the length of any transversal lacing rope shall be not less than 20 % of the circumference of the cod-end.
- *Methodology*: The inspector should check that the length of any transversal lacing rope is not less than 20 % of the cod-end circumference by comparing the two measurements. The cod-end circumference should be calculated as the number of meshes in the circumference of the cod-end, excluding selvedges, multiplied by the determined mesh size.

The Baltic Sea

(a) **Bottom-side chafer**

- *Legal requirements* ([471]): Bottom-side chafers may be attached only to the outside of the lower half of the cod-end. They may be fastened only at their front and side edges.
- *Methodology*: The inspector should verify that the chafer(s) are only on the outside of the cod-end on the bottom section and that the chafer(s) are not connected at the rear edge. NB: bottom-side chafers can be made of any material, including small-mesh netting, and the inspector should not be sidetracked into thinking that such netting is illegal.

(b) **Strengthening bag**

- *Legal requirements* ([472]):
  — strengthening bags may be attached only to cod-ends with a mesh size of less than 90 mm;
  — the mesh size of the strengthening bag must be at least twice that of the cod-end and in no case less than 80 mm.
- *Methodology*: The inspector should verify that:
  — the cod-end has a mesh size of less than 90 mm;
  — the mesh size of the strengthening bag is at least twice that of the cod-end and in any case not less than 80 mm.

(c) **Flapper**

- *Legal requirements* ([473]):
  — the distance from the point of forward attachment of the flapper to the rear end of the cod-end shall be at least three times the length of the flapper.
- *Methodology*: The inspector should verify that:
  — the distance from the point of forward attachment of the flapper to the rear end of the cod-end is at least three times the length of the flapper. No methodology for the determination of length is given in the legislation; common sense would dictate that the same methodology should be used for the determination of both the lengths.

([470]) Article 11(2) and Annex I(B)(9) of Council Regulation (EC) No 1967/2006.

([471]) Article 5(2) of Council Regulation (EC) No 2187/2005.

([472]) Article 5(3) of Council Regulation (EC) No 2187/2005.

([473]) Article 5(4)(a) of Council Regulation (EC) No 2187/2005.

(d) Sensors

The use of sensors which measure the volume of the catch in the cod-end is permitted; such sensors are usually attached to the outside of the cod-end.

(e) Round straps

- *Legal requirements* ([474]):
  - — multiple round straps may be fitted to the outside of the cod-end where its mesh size is less than 90 mm;
  - — only one round strap may be fitted to the outside of the cod-end where its mesh size is equal to or greater than 90 mm;
  - — the rearmost round strap (back strap) shall be no more than 50 cm from the codline.
- *Methodology*: The inspector should verify that:
  - — any round straps are fitted to the outside of the cod-end;
  - — only one round strap is fitted to cod-ends of less than 90 mm mesh size;
  - — the rearmost round strap is no more than 50 cm from the codline.

(f) Lifting strap

The use of one lifting strap is authorised for all towed gear ([475]).

(g) Floats

The attachment of floats to the selvedges of the cod-end is authorised for all towed gear ([476]).

Part C. Non-specified attachments in common use

This part only applies to Regions 2 and 3 and the Mediterranean Sea.

To quote the annex to the regulation ([477]), there are 'certain devices or constructions which may normally form an integral part of, or be used in conjunction with, a trawl', which are described briefly in that annex. These items normally would restrict the mesh size of the netting in some way. The mentioning of such items, and the wording, implies that such devices and constructions are permitted, although no technical parameters are laid down in the regulation. The items mentioned are:

- a strengthening lacing, where several meshes of a row are sewn together, to form a rope-like construction. The purpose of this is normally to reinforce the joins in panels of netting in the direction of the longitudinal axis of the net.
- a lacing rope, which is a rope running lengthwise along the join between two pieces of netting in the direction of the longitudinal axis of the net.
- a float, which is a device made of metal or plastic and usually spherical in shape, used to support the upper half of the net.
- a kite, which is a device used to lift the upper half of the net by hydrostatic shearing force (lift). A kite can either be part of a purpose-made flotation assembly or a piece of material (canvas, plastic, metal) attached to the forward upper part of the net at a positive angle of incidence.
- an electro-mechanical device, which is normally a transducer used to remotely monitor the geometry and position of the net, or the amount of fish in the cod-end.

([474]) Article 5(4)(c), (d) and (f) of Council Regulation (EC) No 2187/2005.

([475]) Article 5(c) and (d) of Council Regulation (EC) No 2187/2005.

([476]) Article 5(e) of Council Regulation (EC) No 2187/2005.

([477]) Commission Regulation (EC) No 3440/84

Part D. Examples of illegal attachments in common use

There are certain illegal attachments which may be encountered, the purpose of all of them being to restrict the mesh openings and therefore retain smaller fish. The most commonly detected of these are:

- blinder netting

Blinder netting is a piece of netting with a mesh size less than that of the cod-end, which is inserted inside the cod-end. It is generally a tube-like construction and is laced by its forward edge to the cod-end netting. Normally, the lacing will only be attached at a few points, making it very easy for the fisherman to cut the lacing and the blinder falls out of the cod-end when the catch is released. The fisherman can then claim that the blinder is in fact a piece of stray netting which was trawled up during the fishing operation. Detecting this type of attachment can only be achieved by being present while the cod-end is brought aboard and emptied.

- illegal round straps

Round straps which are shorter than the required length have a significant impact on the selectivity of the net, by preventing the meshes from opening. Fixed round straps of this type are easily detected, however, there is a system of illegal round straps in frequent use which is much harder to detect, as shown in Figure 84. In this case, the round straps are made of a circle of light twine which is rove through the cod-end netting. The lifting strap is passed backwards, under these round straps, before leading forward to the headline. When the net reaches the surface, the lifting strap is taken from the headline and hauled in. As the lifting strap is pulled forward, it breaks through the weak round straps and when the cod-end is brought aboard, there is no evidence of the round straps, except perhaps for some ends of twine rove through the cod-end meshes (but no illegal round strap good enough for evidential purposes). The only way to detect this practice is to insist that the lifting strap is no hauled upon until the cod-end has been inspected. This can be done by putting a boarding boat next to the cod-end in the water, when it is streamed alongside the fishing vessel. If the presence of this type of attachment is detected, then the inspector should ensure that the cod-end is brought aboard without undue heaving on the lifting strop. In this way, the illegal round straps can be retrieved intact.

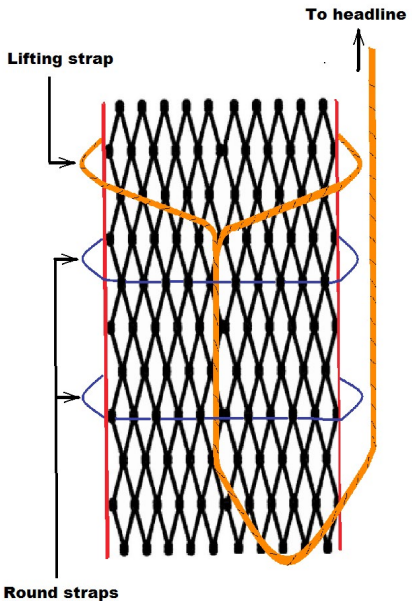


Figure 84 — *Illegal round straps*

- illegal chafers

Another illegal practice seen is that of tying together the two outside edges of a bottom-side chafer over the top of the cod-end. The edges are tied with weak twine. This has the effect of restricting the opening of the cod-end meshes, especially on the top side, where most fish escape from. When the cod-end is hauled aboard, the weight of the fish cause the ties to break, leaving no evidence of the practice. Once, again, this is very hard to detect and the inspector must try and retain the cod-end with the ties intact, which is very difficult in practice.

NB: The use of the above devices is to retain smaller fish, which can still be of marketable size, either by being above the minimum landing size or because there is no minimum size. The inspector should make him/herself familiar with the fisheries in the area, which will give a good indication of where such devices are likely to be in use. Normally, the devices are used where there is a good commercial demand for smaller fish, generally in mixed fisheries. Good examples would be Dover sole, red mullet, hake and squid.

Chapter 4.2.5 — Check the legality of the selectivity of gear

Part A. Introduction

Current legislation requires escape panels to be fitted in certain gears in specified fisheries. The purpose of these panels is to allow the escape of non-target species, which tend to rise when in the net. In addition, escape panels in the cod-end may assist the release of smaller specimens of target or non-target species. Sorting grids are sometimes used in small-mesh nets targeting crustaceans, to allow the escape of white fish.

Escape panels may also be fitted voluntarily by the fishermen, to avoid the capture of unwanted species.

Some gears are required to be fitted with acoustic devices to frighten marine mammals away from the gear, thus minimising the chance of their accidental capture.

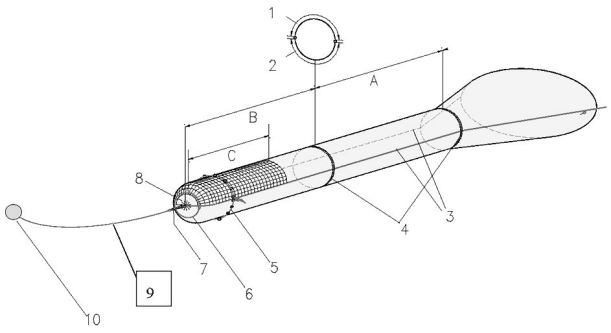
Part B. Escape panels — legal requirements

(a) Headline panel

There are no general requirements for the fitting of headline panels, they are required by certain recovery measures and these are dealt with in Chapter 5.1.2.

(b) Square mesh panel

- Baltic Sea: In the Baltic Sea, any towed net with a mesh size of 105 mm or greater must be fitted with either a Bacoma type escape window or a T-90 extension piece and cod-end ([478]). The specifications of these two alternatives are as follows:
  — Bacoma window ([479]): The window must conform to the following specification; a schematic representation of such a device is shown in Figure 85:



A Extension piece
B Cod-end
C Escape window, square mesh panel
1 Upper panel, maximum 50 open diamond meshes
2 Lower pannel, maximum 50 open diamond meshes
3 Selvedges
4 Joining round or lacing
5 Lifting strap
6 Back strap
7 Codline
8 Distance of window from codline (Figures 3 and 4)
9 Buoy rope
10 Cod-end buoy

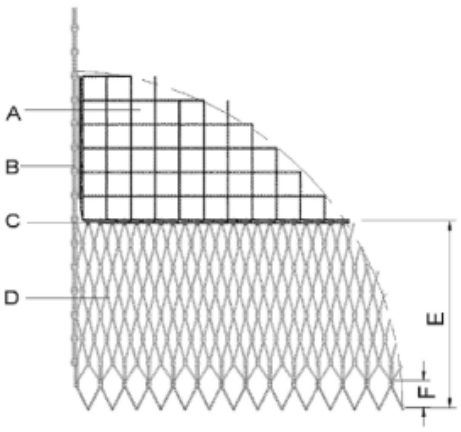
Figure 85 — *Schematic of Bacoma type cod-end*

- The cod-end shall be constructed of two panels, joined together by selvedges one on each side of equal length.
- The minimum mesh size of the diamond meshes shall be 105 mm. The material of the yarn shall be of polyethylene threads with a single twine thickness of no more than 6 mm or with double twine thickness of no more than 4 mm.
- The use of cod-ends and extension pieces which are made of only one piece of net material and have only one selvedge shall be prohibited.
- The number of open diamond meshes, excluding those in the selvedges, at any point on any circumference of any extension piece shall not be less or more than the maximum number of meshes on the circumference of the front end of the cod-end.

([478]) Article 3(1) and Annex II of Council Regulation (EC) No 2187/2005.

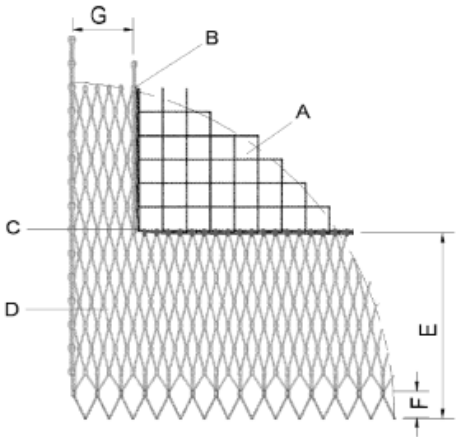
([479]) Appendix 1 of Council Regulation (EC) No 2187/2005.

- The window shall be inserted into the top panel of the cod-end.
- The window shall terminate not more than four meshes from the codline, inclusive of the hand-braided row of meshes through which the codline is passed.
- The width of the window, expressed in number of mesh bars, shall be equal to the number of open diamond meshes in the top panel divided by two. If necessary, it will be allowed to maintain at the most 20 % of the number of open diamond meshes in the top panel divided evenly on the both sides of the window panel.
- The length of the window shall be at least 5.5 m.
- By way of derogation from point (ii) the length of the window shall be at least 6 m if a sensor dedicated to the measurement of the volume of the catches is attached to the window.
- The meshes shall have a minimum mesh opening of 120 mm. The meshes shall be square meshes, i.e. all four sides of the window netting will be cut all bars.
- The netting shall be mounted such that the bars run parallel and perpendicular to the length of the cod-end. The netting shall be knotless braided single twine or netting with similar proven selective properties. Knotless netting means netting which is composed of meshes of four sides in which the corners of the meshes are formed by the interweaving of the twines of two adjacent sides of the mesh.
- The diameter of the single yarn shall be at least 5 mm.
- A back strap shall not encircle the Bacoma exit window.
- A cod-end buoy shall be spherical in shape and have a maximum diameter of 40 cm. It shall be fastened through the buoy rope to the codline.
- A flapper shall not overlap the Bacoma exit window.
- The methods of mounting a 25-bar and a 20-bar wide panel are shown in Figures 86 and 87 respectively.



A 120 mm square mesh panel (25 bars)
B Joining of square mesh panel to selvedge
C Joining of square mesh panel to diamond mesh net
D 105 mm diamond mesh net (maximum 50 open meshes)
E Distance of the window panel from the codline. The window shall terminate not more than four meshes from the codline, inclusive of the hand-braided row of meshes through which the codline is passed
F One row of hand-braided codline meshes

Figure 86 — *Mounting of 25-bar Bacoma window*



A 120 mm square mesh panel (20 bars)
B Joining of square mesh panel to selvedge
C Joining of square mesh panel to diamond mesh net
D 105 mm diamond mesh net (maximum 50 open meshes)
E Distance of the window panel from the codline. The window shall terminate not more than four meshes from the codline, inclusive of the hand-braided row of meshes through which the codline is passed
F One row of hand-braided codline meshes
G Maximum 10 % in both sides of open meshes D

Figure 87 — *Mounting of 20-bar Bacoma window*

— T-90 trawls ([480]): The trawl must conform to the following specification; a schematic representation of such a net is shown in Figure 88:

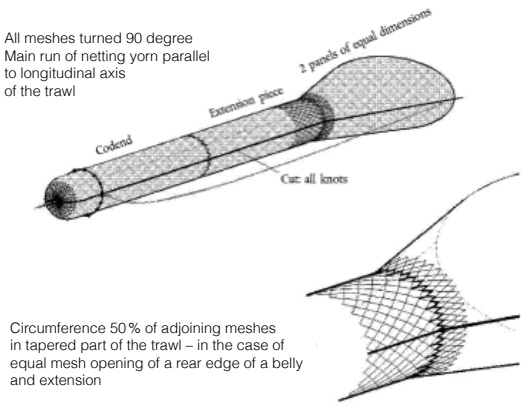


Figure 88 — *Schematic of T-90 trawl*

- A T-90 trawl is any trawl, Danish seine or similar gear having a cod-end and extension piece made of T-90 netting.
- The mesh size shall be at least 120 mm.
- The material of the yarn of the cod-end and the extension piece shall be of polyethylene threads with a single twine thickness of no more than 6 mm or with double twine thickness of no more than 4 mm. This provision shall not apply to the rear most row of meshes in the cod-end, if fitted with a codline.
- The cod-end and extension piece shall be constructed from two panels of equal dimensions, of at least 50 meshes in length, joined by two lateral selvedges.
- The number of open meshes in any circumference must be constant from the front part of the extension to the rear most part of the cod-end.
- At the point of attachment of the cod-end or extension piece to the tapered part of the trawl, the number of meshes in circumference of the cod-end or extension piece must be 50 % of the last row of meshes of the tapered part of the trawl.
- The number of meshes in any circumference in the cod-end and the extension piece, excluding joinings and selvedges, shall be no more than 50.
- The forward edge of the panels composing both cod-end and extension piece shall be fitted out with a braided row of half meshes. The aft edge of cod-end panel shall be fitted out by a full row of braided meshes able to guide the codline.

Any cod-end buoy fitted shall be spherical in shape and have a maximum diameter of 40 cm. It shall be fastened through the buoy rope to the codline.

- Regions 2 and 3 ([481]): Square mesh panels are required to be fitted to towed gear in the mesh size range of 70 to 79 mm in Region 2, and also may be fitted voluntarily in any towed gear. They are also required by certain recovery measures and these are dealt with in Chapter 4.2.7. Where such panels are fitted, they must conform to the following conditions:
  — the panel should be of at least 80 mm mesh size, except for towed nets:
    - in the mesh size range 32 to 54 mm used for targeting shrimps of the genus *Pandalus* in Region 2, where the minimum mesh size for the panel is 70 mm;

([480]) Appendix 2 of Council Regulation (EC) No 2187/2005.

([481]) Article 7 of Council Regulation (EC) 850/98.

  - Used in ICES divisions VIIIa and b, where the minimum mesh size for the panel is 60 mm ([482]);
- the panel shall be placed in the top half or top sheet of a net in front of any extension piece or at any point between the front of any extension piece and the rear of the cod-end;
- shall not be obstructed in any way by either internal or external attachments;
- shall be at least 3 m in length, except when incorporated into nets towed by vessels of less than 112 kilowatts, when it must be of at least 2 m in length;
- shall be constructed of knotless netting or of netting constructed with non-slip knots, and shall be inserted in such a way that the meshes remain fully open at all times while fishing;
- the number of meshes in the front row of meshes of the panel must be equal to or greater than the number of meshes in the rear row of meshes in the panel (i.e. the panel must be parallel or should taper from the front to the rear);
- where a square-meshed panel is inserted in an untapered portion of the net, there shall be at most five open diamond meshes between each panel side and the adjacent selvedges of the net;
- where a square-meshed panel is inserted, wholly or partially, into a tapered portion of the net there shall be at most five open diamond meshes between the rear row of meshes in the square-meshed panel and the adjacent selvedges of the net.

- Mediterranean Sea ([483]): Square mesh panels may be fitted voluntarily in any towed gear. Where such panels are fitted, they must conform to the following conditions:
  - the panel shall be placed in the top half or top sheet of a net in front of any extension piece or at any point between the front of any extension piece and the rear of the cod-end;
  - shall not be obstructed in any way by either internal or external attachments;
  - shall be constructed of knotless netting or of netting constructed with non-slip knots, and shall be inserted in such a way that the meshes remain fully open at all times while fishing.
- Black Sea: No requirements

Part C. Escape panels — methodology

The inspector should establish the legality of the gear in regards to escape panels by performing the following procedure:

- Establish whether it is mandatory for an escape panel to be fitted to the gear, bearing in mind the area of operation, the period and the type of gear in use.
- If the fitting of an escape panel is mandatory, verify that such a panel is fitted and that it conforms to the relevant requirements.
- If an escape panel has been fitted voluntarily by the fisherman, verify that the panel conforms to the relevant requirements.
- Due to the complexity of the requirements, best practice would be for the inspector to be in possession of a summary of these requirements relevant to the area of inspection activities. This would allow the inspector to cross-reference any apparent infringement before taking appropriate enforcement action.

([482]) Article 34(c)(2) of Council Regulation (EC) 850/98.

([483]) Article 11(2) and Annex I(B)(3) of Council Regulation (EC) No 1967/2006.

Part D. Sorting grids

(a) **Legal requirements:**

- When a towed net in the mesh size range 32 to 54 mm is used for targeting shrimps of the genus *Pandalus* in Region 2, either a square mesh panel of minimum mesh size 70 mm or a sorting grid must be fitted to the gear ([484]).
- When fishing in certain parts of ICES sub-area VI, the gear must incorporate either a sorting grid, square-mesh panel or be another gear with equivalent high selectivity ([485]). The detailed requirements are explained in Table 25.

(b) **Methodology:**

- The inspector should first establish whether a sorting grid should be fitted, bearing in mind the type of gear and the area of operation and whether any other selectivity device has been fitted to the gear.
- In the case of certain gears in some parts of ICES sub-area VI, detailed technical specifications have been laid down for sorting grids and the inspector should verify that any sorting grid fitted complies with these requirements.
- In all other cases, as, no technical specifications have been laid down for sorting grids, it will be sufficient for the inspector to check whether a sorting grid is fitted when using such a towed gear without a square mesh panel.

Part E. Acoustic deterrent devices — legal requirements

The requirement to fit acoustic devices varies by fishery and area, and is summarised in Table 5 ([486]).

([484]) Article 7(5) of Council Regulation (EC) 850/98.

([485]) Article 29(d)(7)(a) of Council Regulation (EC) 850/98.

([486]) Article 2 and Annex I of Council Regulation (EC) No 812/2004.

Table 5 — *Fisheries in which acoustic devices are mandatory*

AREA	GEAR	PERIOD
Baltic Sea area delimited by a line running from the Swedish coast at the point at longitude 13° E, thence due south to latitude 55° N, thence due east to longitude 14° E, thence due north to the coast of Sweden; and, the area delimited by a line running from the eastern coast of Sweden at the point at latitude 55°30' N, thence due east to longitude 15° E, thence due north to latitude 56° N, thence due east to longitude 16° E thence due north to the coast of Sweden	Any bottom-set gillnet or entangling net	All year
	Any drift-net	All year
Baltic Sea subdivision 24 (except for the area covered above)	Any bottom-set gillnet or entangling net	All year
	Any drift-net	All year
ICES sub area IV and division III a	Any bottom-set gillnet or entangling net, or combination of these nets, the total length of which does not exceed 400 m	1 August–31 October
	Any bottom-set gillnet or entangling net with mesh sizes > 220 mm	All year
ICES divisions VII e, f, g, h, and j	Any bottom-set gillnet or entangling net	All year
ICES division VII d	Any bottom-set gillnet or entangling net	All year

The acoustic devices should conform to one of the sets of characteristics described in Table 6. However, Member States may authorise the temporary use of acoustic deterrent devices which do not fulfil these technical specifications, provided that their effect on the reduction of incidental catches of cetaceans has been sufficiently documented ([487]).

Table 6 — *Characteristics of acoustic devices*

	SET 1	SET 2
	Signal characteristics	
Signal synthesis	Digital	Analogue
Tonal/wide band	Wide band/tonal	Tonal
Source levels (max–min) re 1 mPa@1m	145 dB	130–150 dB
Fundamental frequency	(a) 20–160 KHz wide band sweeps (b) 10 kHz tonal	10 kHz
High-frequency harmonics	Yes	Yes
Pulse duration (nominal)	300 ms	300 ms
Interpulse interval	(a) 4–30 seconds randomised; (b) 4 seconds	4 seconds
	Implementation characteristics	
Maximum spacing between two acoustic deterrent devices along nets	200 m, with one acoustic device fixed at each end of the net (or combination of nets attached together)	100 m, with one acoustic device fixed at each end of the net (or combination of nets attached together)

([487]) Article 3 and Annex II of Council Regulation (EC) No 812/2004.

Part F. Acoustic deterrent devices — methodology

The inspector should establish the legality of the gear in regards to acoustic devices by performing the following procedure:

- Establish whether it is mandatory for acoustic devices to be fitted to the gear, bearing in mind the area of operation, the period and the type of gear in use.
- If the fitting of acoustic devices is mandatory, check that such devices are fitted and that they conform to the relevant requirements regarding the spacing and positioning of such devices.
- Check that the devices conform to one of the two sets of approved characteristics shown in Table 6. There may be cases where the inspector does not have the technical expertise to check the technical parameters and then it may be better to note the type of device used and to check whether it is on a list of devices approved by the relevant Member State.
- Due to the complexity of the requirements, best practice would be for the inspector to be in possession of a summary of these requirements relevant to the area of inspection activities. This would allow the inspector to cross-reference any apparent infringement before taking appropriate enforcement action.

Chapter 4.2.6 — Check for prohibited gear

Part A. Introduction

In order to protect certain species, there are certain gears which are prohibited or their use is prohibited for the taking of certain species or within certain areas. In addition, certain fishing methods are prohibited.

Unintended catches in excess of catch composition rules, of species subject to the landing obligation shall be kept on board and counted against quota. The direct fishing for non – target species shall be prohibited ([488]).

Part B. Prohibitions

Certain gears and fishing methods are subject to prohibitions. These prohibitions may be absolute or may be subject to additional conditions regarding area, period or use, as described in Tables 7, 8, 9 and 10:

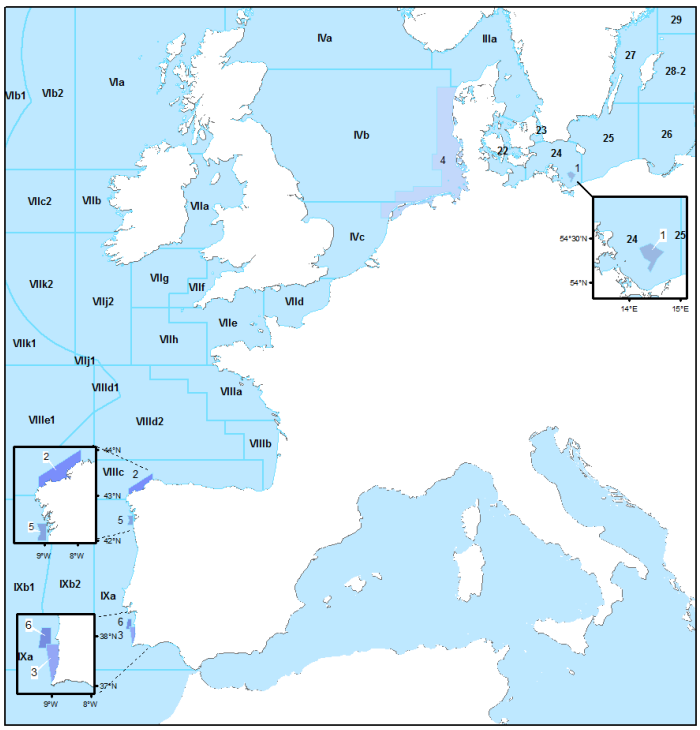


Figure 89 — *Map of areas*

All regions ([489])

Driftnets should not be used to catch the following species: Albacore (*Thunnus alalunga*) — Bluefin tuna (*Thunnus thynnus*) — Bigeye tuna (*Thunnus obesus*) — Skipjack (*Katsuwonus pelamis*) — Atlantic bonito (*Sarda sarda*) — Yellowfin tuna (*Thunnus albacares*) — Blackfin tuna (*Thunnus atlanticus*) — Little tuna (*Euthynnus* spp.) — Southern bluefin tuna (*Thunnus maccoyii*) — Frigate tuna (*Auxis* spp.) — Oceanic sea bream (*Brama rayi*) — Marlins (*Tetrapturus* spp.; *Makaira* spp.) — Sailfishes (*Istiophorus* spp.) — Swordfish (*Xiphias gladius*) — Sauries (*Scomberesox* spp.; *Cololabis* spp.) — Dolphinfishes (*Coryphoena* spp.) — Sharks (*Hexanchus griseus; Cetorhinus maximus; Alopiidae; Carcharhinidae; Sphymidae; Isuridae; Lamnidae*) — Cephalopods: all species.

No vessel may keep on board, or use for fishing, one or more drift nets whose individual or total length is more than 2.5 km.

([488]) Regulation (EU) 2015/812 of the European Parliament and of the Council.

([489]) Article 11 of Council Regulation (EC) No 894/97.

Baltic Sea

Table 8 — *Prohibited gears Baltic*

AREA	PROHIBITION	FURTHER CONDITIONS
Whole area	The use of any fixed gear of mesh size less than 16 mm ([490]).	
Subdivisions 22 to 27	The use of any fixed gear of mesh size less than 32 mm ([491]).	
Whole area	The use or keeping on board of any driftnet ([492]).	
Subdivisions 22 to 23	The use of any beam trawl of mesh size equal to or greater than 90 mm ([493]).	
Subdivisions 22 to 32	The use of any beam trawl of mesh size equal to or greater than 105 mm ([494]).	
(see map area 1 of figure 89) The area enclosed by straight lines sequentially joining the following geographical coordinates: 54° 23' N, 14° 35' E 54° 21' N, 14° 40' E 54° 17' N, 14° 33' E 54° 07' N, 14° 25' E 54° 10' N, 14° 21' E 54° 14' N, 14° 25' E 54° 17' N, 14° 17' E 54° 24' N, 14° 11' E 54° 27' N, 14° 25' E 54° 23' N, 14° 35' E	Fishing with any active gear ([495]).	
Subdivision 28-1	Fishing with any trawl ([496]).	Applies only to waters of less than 20 m depth.

Regions 2 and 3

Table 7 — *Prohibited gears Regions 2 and 3*

AREA	PROHIBITION	FURTHER CONDITIONS
Region 3 except ICES Division IXa east of longitude 7° 23' 48" W	The use of any towed gear of mesh size less than 16 mm ([497]).	
ICES Division IXa east of longitude 7° 23' 48" W	The use of any towed gear of mesh size less than 40 mm ([498]).	
Region 2	The use or keeping on board of any fixed gear of mesh size: ([499]) • less than 16 mm • > 30 mm to < 50 mm • > 70 mm to < 90 mm	
(see map area 2 of figure 89) The area enclosed by straight lines sequentially joining the following geographical coordinates: 43°46,5' N, 7°54,4' W, 44°1,5' N, 7°54,4' W, 43°25' N, 9°12' W, 43°10' N, 9°12' W; (Part of ICES Division VIa)	Fishing with any trawl, Danish seine or similar towed net ([500]). (Any such nets aboard to be lashed and stowed)	From 1 October to 31 January

([490]) Article 3(4) and Annex III of Council Regulation (EC) 2187/2005.

([491]) Article 3(1) and Annex III of Council Regulation (EC) 2187/2005.

([492]) Article 9(1) of Council Regulation (EC) 2187/2005.

([493]) Footnote 3 to Annex II of Council Regulation (EC) 2187/2005.

([494]) Footnote 3 to Annex II of Council Regulation (EC) 2187/2005.

([495]) Article 16 of Council Regulation (EC) 2187/2005.

([496]) Article 22 of Council Regulation (EC) 2187/2005.

([497]) Article 4(2)(f) of Council Regulation (EC) 850/98.

([498]) Article 4(2)(f) of Council Regulation (EC) 850/98.

([499]) Article 11(1)(b) and Annex VI of Council Regulation (EC) 850/98.

([500]) Article 28(1)(a) of Council Regulation (EC) 850/98.

AREA	PROHIBITION	FURTHER CONDITIONS
(see map area 3 of figure 89) The area enclosed by straight lines sequentially joining the following geographical coordinates: a point on the west coast of Portugal at 37° 50' N, 37° 50' N, 9° 08' W, 37° 00' N, 9° 07' W, a point on the west coast of Portugal at 37° 00' N. (Part of ICES Division IXa)	Fishing with any trawl, Danish seine or similar towed net ([501]). (Any such nets aboard to be lashed and stowed)	From 1 December to the last day of February
(a) the area within 12 miles of the coasts of France, north of latitude 51° 00' N, Belgium, and the Netherlands up to latitude 53° 00' N (Part of ICES Division IVIc) (see map area 4 of figure 89) (b) the area bounded by a line joining the following coordinates: a point on the west coast of Denmark at 57° 00' N, 57° 00' N, 7° 15' E, 55° 00' N, 7° 15' E, 55° 00' N, 7° 00' E, 54° 30' N, 7° 00' E, 54° 30' N, longitude 7° 30' E, 54° 00' N, 7° 30' E, 54° 00' N, 6° 00' E, 53° 50' N, 6° 00' E, 53° 50' N, 5° 00' E, 53° 30' N, 5° 00' E, 53° 30' N, 4° 15' E, 53° 00' N, 4° 15' E, a point on the coast of the Netherlands at 53° 00' N. (Part of ICES Division IVb) (c) the area within 12 miles of the west coast of Denmark from 57° 00' N as far north as the Hirtshals Lighthouse.	Fishing with any trawl, Danish seine or similar towed net ([502]). (Any such nets aboard to be lashed and stowed)	Only applies to vessels of greater than 8 m overall length. The inspector should be aware that certain vessels may be allowed to fish under a fishing authorisation, which should be carried aboard.
(see map area 5 of figure 89) (d) The area enclosed by straight lines sequentially joining the following geographical coordinates: 42°23' N, 08°57' W 42°00' N, 08°57' W 42°00' N, 09°14' W 42°04' N, 09°14' W 42°09' N, 09°09' W 42°12' N, 09°09' W 42°23' N, 09°15' W 42°23' N, 08°57' W; (Part of ICES Division IXa)	Fishing with bottom trawls or similar towed nets operating in contact with the bottom of the sea, or with creels ([503]).	From 1 June to 31 August The use of creels is authorised if they do not catch Norway lobster.
(see map area 6 of figure 89) The area enclosed by straight lines sequentially joining the following geographical coordinates: 37°45' N, 09°00' W 38°10' N, 09°00' W 38°10' N, 09°15' W 37°45' N, 09°20' W. (Part of ICES Division IXa)	Fishing with bottom trawls or similar towed nets operating in contact with the bottom of the sea, or with creels ([504]).	From 1 May to 31 August The use of such trawls is authorised if the by-catch of Norway lobster (*Nephrops norvegicus*) does not exceed 2 %, and the use of creels is authorised if they do not catch Norway lobster.

([501]) Article 28(1)() of Council Regulation (EC) 850/98.

([502]) Article 29 of Council Regulation (EC) 850/98.

([503]) Article 29(b) of Council Regulation (EC) 850/98.

([504]) Article 29(b) of Council Regulation (EC) 850/98.

AREA	PROHIBITION	FURTHER CONDITIONS
The area enclosed by straight lines sequentially joining the following geographical coordinates: 57°00' N, 15°00' W 57°00' N, 14°00' W 56°30' N, 14°00' W 56°30' N, 15°00' W 57°00' N, 15°00' W. (Rockall haddock box, part of ICES sub-area VI)	All fishing for haddock, except with longlines ([505]).	
That part of ICES division VIa that lies to the east or the south of those rhumb lines which sequentially join the following geographical coordinates: 54°30' N, 10°35' W 55°20' N, 09°50' W 55°30' N, 09°20' W 56°40' N, 08°55' W 57°00' N, 09°00' W 57°20' N, 09°20' W 57°50' N, 09°20' W 58°10' N, 09°00' W 58°40' N, 07°40' W 59°00' N, 07°30' W 59°20' N, 06°30' W 59°40' N, 06°05' W 59°40' N, 05°30' W 60°30' N, 04°50' W 60°15' N, 04°00' W.	Any fishing for cod, haddock and whiting ([506]).	By way of derogation, it shall be permitted to conduct fishing operations: 1. Using inshore static nets fixed with stakes, scallop dredges, mussel dredges, handlines, mechanised jigging, draft nets, beach seines, pots and creels, provided that: (a) only the gears mentioned above are carried on board or deployed; (b) no fish other than mackerel, pollack, saithe and salmon, or shellfish other than molluscs and crustaceans are retained on board or landed. 2. Using nets with a mesh size of less than 55 mm, provided that: (a) only the gear mentioned above is carried on board; (b) no fish other than herring, mackerel, pilchard, sardinelles, horse mackerel, sprat, blue whiting, boarfish and argentines, are retained on board. 3. Using gillnets with a mesh size of greater than 120 mm, provided that: (a) they are only deployed south of 59°N; (b) the maximum length of net deployed is 20 km per vessel; (c) the maximum soak time is 24 hours; and (d) no more than 5 % of the catch is whiting and cod. 4. Using gillnets with a mesh size of greater than 90 mm, provided that: (a) they are only deployed within 3 nm of the coast and for a maximum of 10 days/calendar month; (b) the maximum length of net deployed is 1 000 m; (c) the maximum soak time is 24 hours; and (d) at least 70 % of the catch is lesser spotted dogfish. 5. For Norway lobster, provided that: (a) the gear used incorporates a sorting grid ([507]) or square mesh panel ([508]), or is of equivalent high selectivity; (b) the minimum mesh size is 80 mm; and (c) at least 30 % of the catch is Norway lobster. (d) the conditions shall not apply in the area enclosed by the following coordinates. 59°05' N, 06°45' W 59°30' N, 06°00' W 59°40' N, 05°00' W 60°00' N, 04°00' W 59°30' N, 04°00' W 59°05' N, 06°45' W.

([505]) Article 29(c) of Council Regulation (EC) 850/98.

([506]) Article 29(d) of Council Regulation (EC) 850/98.

([507]) The technical specification for the sorting grid is in Annex 2.

([508]) The technical specification for the square mesh panel is in Annex 3.

AREA	PROHIBITION	FURTHER CONDITIONS
		6. Using trawls, demersal seines or similar gear, provided that: (a) all nets on board are of minimum mesh size of 120 mm for vessels of over 15 m loa and 110 mm for all other vessels; (b) where the catch is less than 90 % saithe, the gear incorporates a square mesh panel; (c) where the loa of the vessel is less than or equal to 15 m, regardless of the quantity of saithe on board, the gear incorporates a square mesh panel. (d) the conditions shall not apply in the area enclosed by the following coordinates 59°05' N, 06°45' W 59°30' N, 06°00' W 59°40' N, 05°00' W 60°00' N, 04°00' W 59°30' N, 04°00' W 59°05' N, 06°45' W.
The area enclosed by straight lines sequentially joining the following geographical coordinates: 55°25' N, 07°07' W 55°25' N, 07°00' W 55°18' N, 06°50' W 55°17' N, 06°50' W 55°17' N, 06°52' W 55°25' N, 07°07' W. (Part of ICES Division VIa)	Fishing with any of the following gears ([509]): (a) bottom trawls and seines of mesh size equal to or greater than 70 mm; (b) bottom trawls and seines of mesh size equal to or greater than 16 mm and less than 32 mm; (c) beam trawls of mesh size equal to or greater than 80 mm; (d) gillnets, entangling nets and trammel nets; (e) longlines	From 1 January to 31 March and from 1 October to 31 December
Statistical rectangles 30E4, 31E4 and 32E3, outside 6 nm from the baselines. (Part of ICES sub-area VII)	Any fishing activity ([510]).	From 1 February to 31 March By way of derogation, it shall be permitted to conduct fishing operations: 1. Using inshore static nets fixed with stakes, scallop dredges, mussel dredges, handlines, mechanised jigging, draft nets, beach seines, pots and creels, provided that: (a) only the gears mentioned above are carried on board or deployed; (b) no fish other than mackerel, pollack, and salmon, or shellfish other than molluscs and crustaceans are retained on board or landed. 2. Using nets with a mesh size of less than 55 mm, provided that: (a) only the gear mentioned above is carried on board; (b) no fish other than herring, mackerel, pilchard, sardinelles, horse mackerel, sprat, blue whiting, boarfish and argentines, are retained on board.

([509]) Article 29(d)(12) of Council Regulation (EC) 850/98.

([510]) Article 29(e) of Council Regulation (EC) 850/98.

AREA	PROHIBITION	FURTHER CONDITIONS
The area enclosed by: The east coasts of Ireland and Northern Ireland; and straight lines sequentially joining the following geographical coordinates: a point on the east coast of Northern Ireland at 54°30' N 54°30' N, 04°50' W 53°15' N, 04°50' W a point on the east coast of Ireland at 53°15' N (Part of ICES Division VIIa)	Fishing with any of the following gears ([511]): (a) demersal trawls, seines or similar towed nets; (b) gillnets, trammel nets, entangling nets or similar static nets; (c) any gear incorporating hooks.	From 14 February to 30 April By way of derogation, it shall be permitted to conduct fishing operations: 1. Using a demersal otter trawl, provided that: (a) only the gear mentioned above is carried on board (b) the net is of mesh size range 70–79 mm or 80–89 mm (c) is only of one of the permitted mesh size ranges (d) incorporates no mesh with a mesh size of greater than 300 mm (e) is deployed only in the area enclosed by the following coordinates 53°30' N, 05°30' W 53°30' N, 05°20' W 54°20' N, 04°50' W 54°30' N, 05°10' W 54°30' N, 05°20' W 54°00' N, 05°50' W 54°00' N, 06°10' W 53°45' N, 06°10' W 53°45' N, 05°30' W 53°30' N, 05°30' W 2. Using a demersal trawl, seine or similar towed net fitted with a separator panel or sorting grid, provided that: (a) the gear complies with the conditions in point 1; (b) any separator panel is constructed in conformity with the Annex of CR (EC) 254/2002 (c) any sorting grid is constructed in conformity with the Annex XIVa of CR (EC) 850/98. 3. Using a demersal trawl, seine or similar towed net fitted with a separator panel or sorting grid, provided that it is deployed only in the area enclosed by the following coordinates 53°45' N, 06°00' W 53°45' N, 05°30' W 53°00' N, 05°30' W 53°30' N, 06°00' W 53°45' N, 06°00' W
ICES divisions IIIa, IVa, Vb, VIa, VIb, VIIb, c, j, k and ICES sub-areas VIII, IX X and XII east of 27°W	Deploying any bottom set gillnets, trammel nets or entangling nets in any position where the charted depth is greater than 200 m ([512]).	By way of derogation, it shall be permitted to conduct fishing operations: 1. Using gillnets in ICES divisions IIIa, IVa, Vb, VIa, VIb, VIIb, c, j, k and ICES sub-area XII east of 27°W with a mesh size of 120–150 mm, gillnets in ICES divisions VIIIa, b, d, and ICES sub-area X with a mesh size of 100–130 mm and gillnets in ICES division VIIIc and ICES sub-area IX with a mesh size of 80–110 mm, provided that: (a) they are deployed where the charted depth is less than 600 m; (b) they are no more than 100 meshes deep and have a hanging ratio of not less than 0.5; (c) they are rigged with floats or equivalent floatation; (d) they have a maximum length of 5 nm and the total length of nets deployed does not exceed 25 km per vessel; (e) the maximum soak time is 24 hours.

([511]) Article 34(a) of Council Regulation (EC) 850/98.

([512]) Article 34(b) of Council Regulation (EC) 850/98.

AREA	PROHIBITION	FURTHER CONDITIONS
		2. Using entangling nets with a minimum mesh size of 250 mm, provided that: (a) they are deployed where the charted depth is less than 600 m; (b) they are no more than 15 meshes deep and have a hanging ratio of not less than 0.33; (c) they are not rigged with floats or other floatation; (d) they have a maximum length of 10 km and the total length of nets deployed does not exceed 100 km per vessel; (e) the maximum soak time is 72 hours 3. Using gillnets in ICES divisions IIIa, Iva, Vb, VIa, VIb, VIIb, c, j, k and ICES sub-area XII east of 27°W with a mesh size of 100–130 mm, provided that: (a) they are deployed where the charted depth is more than 200 m and less than 600 m; (b) they are no more than 100 meshes deep and have a hanging ratio of not less than 0.5; (c) they are rigged with floats or equivalent floatation; (d) they have a maximum length of 4 nm and the total length of nets deployed does not exceed 20 km per vessel; (e) the maximum soak time is 24 hours; (f) no less than 85 % of the retained catch is hake; (g) prior to departure, the master records in the logbook the total length of gear on board; (h) at the time of landing, the vessel has 90 % of the gear on board; (i) the quantity of all species caught (including discards), greater than 50 kg is recorded in the logbook; 4. Using trammel nets in ICES sub-area IX with a mesh size equal to or greater than 220 mm, provided that: (a) they are deployed where the charted depth is less than 600 m; (b) they are no more than 30 meshes deep and have a hanging ratio of not less than 0.44; (c) they are not rigged with floats or floatation; (d) they have a maximum length of 5 nm and the total length of nets deployed does not exceed 20 km per vessel; (e) the maximum soak time is 72 hours 5. Only one of the types of gear described in points 1, 2 and 4 shall be retained on board at any one time. Vessels may carry on board nets which are 20 % longer than the maximum lengths which may be deployed at any one time.
Regions 2 and 3	Having on board or using any beam trawl of which the beam length, or any beam trawls of which the aggregate beam length measured as the sum of the length of each beam, is greater than 24 metres or can be extended to a length greater than 24 m ([513]).	

([513]) Article 30(1) of Council Regulation (EC) 850/98.

AREA	PROHIBITION	FURTHER CONDITIONS
(a) the North Sea north of a line joined by the following points: a point on the east coast of the UK at 55° N, then east to 55° N, 5° E, then north to 56° N, and finally east to the west coast of Denmark at 56° N; (Part of ICES Division IVb) (b) ICES Division Vb and ICES sub-area VI north of latitude 56° N.	Using any beam trawl of which the mesh size lies between 32 and 99 mm ([514]). (Any such nets aboard to be lashed and stowed)	
The North Sea north of a line joined by the following points: a point on the east coast of the UK at 55° N, then east to 55° N, 5° E, then north to 56° N, and finally east to the west coast of Denmark at 56° N; (Part of ICES Division IVb)	Using any demersal otter trawl, demersal pair trawl or Danish seine of which the mesh size lies between 80 and 99 mm ([515]). (Any such nets aboard to be lashed and stowed)	
The area enclosed by straight lines sequentially joining the following geographical coordinates: 59° 54' N 06° 55' W 59° 47' N 06° 47' W 59° 37' N 06° 47' W 59° 37' N 07° 39' W 59° 45' N 07° 39' W 59° 54' N 07° 25' W. (Part of ICES Division VIa)	Using any bottom trawl or similar towed nets operating in contact with the bottom of the sea ([516]).	
The 12-mile zone around the United Kingdom and Ireland	Using any beam trawl ([517]). (Any unauthorised beam trawls aboard to be lashed and stowed)	However, vessels in any of the following categories are authorised to use beam trawls: (a) a vessel which entered into service before 1 January 1987, and whose engine power does not exceed 221 kW, and in the case of derated engines did not exceed 300 kW before derating; (b) a vessel which entered into service after 31 December 1986 whose engine is not derated, whose engine power does not exceed 221 kW, and whose length overall does not exceed 24 m; (c) a vessel which had its engine replaced after 31 December 1986 with an engine which is not derated and whose power does not exceed 221 kW
The 12-mile zone around the United Kingdom and Ireland	The use of any beam trawl of which the beam length, or of any beam trawls of which the aggregate beam length, is greater than nine metres or can be extended to a length greater than 9 m, except when operating with gear having a mesh size between 16 and 31 mm ([518]). (Any such nets aboard to be lashed and stowed)	

([514]) Article 30(2) of Council Regulation (EC) 850/98.

([515]) Article 30(3) of Council Regulation (EC) 850/98.

([516]) Article 30(4) of Council Regulation (EC) 850/98.

([517]) Article 34(1) of Council Regulation (EC) 850/98.

([518]) Article 34(3) of Council Regulation (EC) 850/98.

AREA	PROHIBITION	FURTHER CONDITIONS
Waters situated within 3 miles of the baselines in the Skagerrak and Kattegat	The use or carrying on board of trawls having a mesh size of less than 32 mm ([519]). (Any such nets aboard to be lashed and stowed) However, for northern shrimp (*Pandalus borealis*), nets with a minimum mesh size of 30 mm may be used, and for eelpout (*Zoarces viviparus*), gobies (*Gobiidae*) or scorpion fish (*Cottus ssp.*) to be used as bait, nets with any mesh size may be used.	From 1 July to 15 September
Kattegat	The use or carrying on board of beam trawls ([520]). (Any such nets aboard to be lashed and stowed)	
Whole area	The sale, display or offer for sale of marine organisms caught using any kind of projectile is prohibited ([521]).	

AREA		PROHIBITION
The areas enclosed by straight lines sequentially joining the following geographical coordinates: ([522])		
51°29.4' N, 11°51.6' W 51°32.4' N, 11°41.4' W 51°15.6' N, 11°33.0' W 51°13.8' N, 11°44.4' W 51°29.4' N, 11°51.6' W (Belgica Mound Province) 52°16.2' N, 13°12.6' W 52°24.0' N, 12°58.2' W 52°16.8' N, 12°54.0' W 52°16.8' N, 12°29.4' W 52°04.2' N, 12°29.4' W 52°04.2' N, 12°52.8' W 52°09.0' N, 12°56.4' W 52°09.0' N, 13°10.8' W 52°16.2' N, 13°12.6' W (Hovland Mound Province) 53°30.6' N, 14°32.4' W 53°35.4' N, 14°27.6' W 53°40.8' N, 14°15.6' W 53°42.2' N, 14°11.4' W 53°31.8' N, 14°14.4' W 53°24.0' N, 14°28.8' W 53°30.6' N, 14°32.4' W (North-west Porcupine Bank Area 1)	53°43.2' N, 14°10.8' W 53°51.6' N, 13°53.4' W 53°45.6' N, 13°49.8' W 53°36.6' N, 14°07.2' W 53°43.2' N, 14°10.8' W (North-West Porcupine Bank Area II) 51°54.6' N, 15°07.2' W 51°54.6' N, 14°55.2' W 51°42.0' N, 14°55.2' W 51°42.0' N, 15°10.2' W 51°49.2' N, 15°06.0' W 51°54.6' N, 15°07.2' W (South-west Porcupine Bank)	1. Fishing with: (a) bottom trawls; (b) static gear; (c) pelagic trawls, except with nets with a mesh size in the range of 16–31 mm or 32–54 mm 2. Carrying on board pelagic nets outside the above mesh size ranges
The areas enclosed by straight lines sequentially joining the following geographical coordinates ([523]): 44°12' N, 05°16' W 44°12' N, 04°26' W 43°53' N, 04°26' W 43°53' N, 05°16' W 44°12' N, 05°16' W (El Cachucho)		1. Fishing with: (a) bottom trawls; (b) static gear, except certain vessels fishing for greater forkbeard with longlines, which will have an authorisation for such fishing activity

([519]) Article 37 of Council Regulation (EC) 850/98.

([520]) Article 39 of Council Regulation (EC) 850/98.

([521]) Article 31(2) of Council Regulation (EC) No 850/98.

([522]) Article 34e of Council Regulation (EC) 850/98.

([523]) Article 34f of Council Regulation (EC) 850/98.

Mediterranean Sea

Table 9 — *Prohibited gears Mediterranean*

AREA	PROHIBITION	FURTHER CONDITIONS
Whole area	Fishing with trawl nets, dredges, purse seines, boat seines, shore seines or similar nets above seagrass beds of, in particular, *Posidonia oceanica* or other marine *phanerogams* ([524]).	The inspector should be aware that certain seine vessels may be allowed to fish under the authorisation of a management plan. In addition, the use of towed nets by vessels of no more than 12 m in length and 85 kW may also be authorised by a management plan ([525]).
Whole area	Fishing with trawl nets, dredges, shore seine or similar nets above coralligenous habitats and maerl beds ([526]).	
Whole area	The use of towed dredges and trawl nets fisheries at depths beyond 1 000 m ([527]).	
Whole area	The use of bottom-set nets to catch the following species: albacore (*Thunnus alalunga*), bluefin tuna (*Thunnus thynnus*), swordfish (*Xiphias gladius*), ray's bream (*Brama brama*), sharks (*Hexanchus griseus*; *Cetorhinus maximus*; *Alopiidae*; *Carcharhinidae*; *Sphyrnidae*; *Isuridae* and *Lamnidae*) ([528]).	By way of derogation, accidental by-catches of no more than three specimens of the shark species referred to may be retained on board provided that they are not protected species under Union law.
Whole area	The use of driftnets to catch the following species: albacore, (*Thunnus alalunga*), bluefin tuna (*Thunnus thynnus*), bigeye tuna (*Thunnus obesus*), skipjack (*Katsuwonus pelamis*), Atlantic Bonito (*Sarda sarda*), yellowfin tuna (*Thunnus albacores*), blackfin tuna (*Thunnus atlanticus*), little tuna (*Euthynnus* spp), southern bluefin tuna (*Thunnus maccoyii*), frigate tuna (*Auxis* spp), oceanic sea breams (*Brama rayi*), marlins (*Tetrapturus* spp, *Makaira* spp), sailfishes: (*Istiophorus* spp), swordfishes (*Xiphias gladius*), sauries (*Scomberesox* spp, *Cololabis* spp), dolphinfishes (*Coryphúna* spp), sharks (*Hexanchus griseus*; *Cetorhinus maximus*; *Alopiidae*; *Carcharhinidae*; *Sphymidae*; *Isuridae*; *Lamnidae*), cephalopods (all species) ([529])	
Whole area	The use or keeping on board of one or more drift nets whose individual or total length is more than 2.5 km	
Whole area	The use or keeping on board of any towed net not having a minimum mesh size in the cod-end of either ([530]): • 40 mm square mesh, or • 50 mm diamond mesh.	This shall not apply to trawl nets targeting sardine and anchovy, where these species account for at least 80 % of the catch in live weight after sorting, in which case the minimum mesh size shall be 20 mm ([531]).
Whole area	The use or keeping on board of any surrounding net not having a minimum mesh size of 14 mm ([532]).	The inspector should be aware that certain seine vessels may be allowed to fish under a derogation issued by the Flag Member State.
Whole area	The use or keeping on board of any bottom-set gillnet not having a minimum mesh size of 16 mm ([533]).	This shall not apply to bottom-set nets targeting red sea bream, where these species account for at least 20 % of the catch in live weight after sorting, in which case the minimum mesh size shall be 100 mm ([534]).

([524]) Article 4(1) of Council Regulation (EC) 1967/2006.

([525]) Article 4(5) of Council Regulation (EC) 1967/2006.

([526]) Article 4(2) of Council Regulation (EC) 1967/2006.

([527]) Article 16 of Regulation (EU) No 1343/2011 of the European Parliament and of the Council.

([528]) Article 8(2) of Council Regulation (EC) 1967/2006.

([529]) Article 11(a) and Annex VIII of Council Regulation (EC) 894/1997.

([530]) Article 9 of Council Regulation (EC) 1967/2006.

([531]) Article 9(4) of Council Regulation (EC) 1967/2006.

([532]) Article 9(5) of Council Regulation (EC) 1967/2006.

([533]) Article 9(6) of Council Regulation (EC) 1967/2006.

([534]) Article 9(6)(b) of Council Regulation (EC) 1967/2006.

AREA	PROHIBITION	FURTHER CONDITIONS
Whole area	The use of towed gears within 3 nautical miles of the coast or within the 50 m isobath where that depth is reached at a shorter distance from the coast ([535]).	However, the use of dredges shall be authorised within 3 nautical miles irrespective of the depth provided that the catch of species other than shellfish does not exceed 10 % of the total live weight.
Whole area	The use of trawl nets within 1.5 nautical miles of the coast, and the use of boat dredges and of hydraulic dredges within 0.3 nautical miles of the coast ([536]).	The inspector should be aware that certain trawl vessels may be allowed to fish within 0.7 and 1.5 nautical miles off the coast under a derogation issued by the flag Member State ([537]).
Whole area	The use of purse seines within 300 m of the coast or within the 50 m isobath where that depth is reached at a shorter distance from the coast ([538]).	
Whole area	The use of dredges for sponge fishing within the 50 m isobath and within 0.5 nautical miles of the coast ([539]).	
Whole area	The use of towed nets, surrounding nets, purse seines, boat dredges, mechanised dredges, gillnets, trammel nets and combined bottom-set nets for leisure fisheries, and the use of longlines in leisure fisheries for highly migratory species ([540]).	
The zone extending up to 25 nautical miles from baselines around the Maltese islands	Fishing by vessels other than those less than 12 m overall and using other than towed gears ([541]).	The inspector should be aware that certain trawlers up to 24 m may be allowed to fish under a special permit, which should be carried aboard. The inspector should also be aware that the fishing capacity of any trawler authorised to operate at a depth of less than 200 m must not exceed 185 kW ([542]).
Whole area	Fishing for dolphinfish (*Coryphaena* spp.) by fish aggregating devices ([543]).	From 1 January to 14 August The inspector should be aware that certain vessels may be allowed to fish until 31 January under a rollover derogation issued by the Member State.
Whole area	The use of every fishing gears to catch swordfish during closure season	From 1 October to 30 November and from 1 March to 31 March
Whole area	The use of spear-guns in conjunction with underwater breathing apparatus (aqualung, scuba) is prohibited. The use of spear-guns is prohibited at night, from sunset to dawn ([544]).	

Black Sea

Table 10 — *Prohibited gears Black Sea*

AREA	PROHIBITION	FURTHER CONDITIONS
Whole area	The use or keeping on board of any towed net not having a minimum mesh size in the cod-end of either ([545]): • 40 mm square mesh, or • 50 mm diamond mesh.	

Part C. Methodology

The inspector should establish whether the gear is prohibited by performing the following procedure:

([535]) Article 13(1) of Council Regulation (EC) 1967/2006.

([536]) Article 13(2) of Council Regulation (EC) 1967/2006.

([537]) Article 13(5) of Council Regulation (EC) 1967/2006.

([538]) Article 13(3) of Council Regulation (EC) 1967/2006.

([539]) Article 13(4) of Council Regulation (EC) 1967/2006.

([540]) Article 17 of Council Regulation (EC) 1967/2006.

([541]) Article 26 of Council Regulation (EC) 1967/2006.

([542]) Article 26(2) of Council Regulation (EC) 1967/2006.

([543]) Article 12) of Regulation (EU) No 1343/2011.

([544]) Article 8(4) of Council Regulation (EC) No 1967/2006.

([545]) Article 15(2) of Regulation (EU) No 1343/2011.

- Establish whether the gear appears on the list of prohibited gears, bearing in mind the area of operation, the period and the type of gear in use.
- If the gear appears on such a list, further checking whether the gear is indeed prohibited, bearing in mind any additional conditions or derogations relevant to that particular gear.
- Due to the complexity of the requirements, best practice would be for the inspector to be in possession of a summary of these requirements relevant to the area of inspection activities. This would allow the inspector to cross-reference any apparent infringement before taking appropriate enforcement action.

Chapter 4.2.7 — Landings from RFMOs and/or by third country vessels

The inspector may also come across landings which do not fall completely or partially under the requirements already described above, namely:

Part A. Landings from RFMOs

Landings may be made into EU ports by either EU or third country vessels which have been fishing in the regulatory area of an RFMO, such as NAFO, NEAFC, ICCAT, etc. For some RFMOs, there will be restrictions placed on the gear by their own legislation and there may also be further restrictions in place for EU vessels imposed by EU legislation. The inspector will need to be aware of such restrictions and of his obligations in reporting any infringements found. In general, where an infringement has been detected, the inspector's findings should be transmitted to the flag state for follow-up and copied to the administration of the RFMO, although these requirements can vary between different RFMOs.

Part B. Landings by third country vessels

In general, third country vessels will be landing under one of three scenarios, as follows:

- Having fished in their own waters, in which case the flag state conditions will apply. In such cases, normal procedure would be for the results of any inspection to be forwarded to the flag state, who would be aware of any applicable catch composition restrictions.
- Having fished in EU waters, where EU regulations would apply. Any infringement detected could be dealt with by the authorities of the Member State where the landing took place, or handed over to the flag state.
- Having fished in an RFMO regulatory area, where the RFMO regulations would apply. Any infringements detected would be handled as described in Part A.

When dealing with landings from RFMOs and/or by third country vessels, the inspector should ensure that the relevant legislation is available for consultation, preferably before the inspection commences.

Appendix 1: Bibliography

Appendix 2: Links and references

Appendix 3: Legislation

- Commission Regulation (EEC) No 3440/84 of 6 December 1984 on the attachment of devices to trawls, Danish seines and similar nets.
- Council Regulation (EC) No 894/97 of 29 April 1997 laying down certain technical measures for the conservation of fishery resources.
- Council Regulation (EC) No 850/98 of 30 March 1998 for the conservation of fishery resources through technical measures for the protection of juveniles of marine organisms.
- Commission Regulation (EC) No 2056/2001 of 19 October 2001 establishing additional technical measures for the recovery of the stocks of cod in the North Sea and to the west of Scotland.
- Commission Regulation (EC) No 494/2002 of 19 March 2002 establishing additional technical measures for the recovery of the stock of hake in ICES sub-areas III, IV, V, VI and VII and ICES divisions VIII a, b, d, e.
- Council Regulation (EC) No 812/2004 of 26 April 2004 laying down measures concerning incidental catches of cetaceans in fisheries and amending Regulation (EC) No 88/98.
- Council Regulation (EC) No 2187/2005 of 21 December 2005 for the conservation of fishery resources through technical measures in the Baltic Sea, the Belts and the Sound, amending Regulation (EC) No 1434/98 and repealing Regulation (EC) No 88/98.
- Council Regulation (EC) No 1967/2006 of 21 December 2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea, amending Regulation (EEC) No 2847/93 and repealing Regulation (EC) No 1626/94.
- Commission Regulation (EC) No 517/2008 of 10 June 2008 laying down detailed rules for the implementation of Council Regulation (EC) No 850/98 as regards the determination of the mesh size and assessing the thickness of twine of fishing nets.
- Council Regulation (EC) No 1224/2009 of 20 November 2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy (CFP), amending Regulations (EC) No 847/96, (EC) No 2371/2002, (EC) No 811/2004, (EC) No 768/2005, (EC) No 2115/2005, (EC) No 2166/2005, (EC) No 388/2006, (EC) No 509/2007, (EC) No 676/2007, (EC) No 1098/2007, (EC) No 1300/2008, (EC) No 1342/2008 and repealing Regulations (EEC) No 2847/93, (EC) No 1627/94 and (EC) No 1966/20.
- Commission Implementing Regulation (EU) No 404/2011 of 8 April 2011 laying down detailed rules for the implementation of Council Regulation (EC) No 1224/2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy (CFP).
- Regulation (EU) No 1343/2011 of the European Parliament and of the Council of 13 December 2011 on certain provisions for fishing in the GFCM (General Fisheries Commission for the Mediterranean) Agreement area and amending Council Regulation (EC) No 1967/2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea.
- Commission Implementing Regulation (EU) No 737/2012 of 14 August 2012 on the protection of certain stocks in the Celtic Sea.

- Commission Delegated Regulation (EU) 2015/98 of 18 November 2014 on the implementation of the Union's international obligations, as referred to in Article 15(2) of Regulation (EU) No 1380/2013 of the European Parliament and of the Council, under the International Convention for the Conservation of Atlantic Tunas and the Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries
- Regulation (EU) 2015/812 of the European Parliament and of The Council of 20 May 2015 amending Council Regulations (EC) No 850/98, (EC) No 2187/2005, (EC) No 1967/2006, (EC) No 1098/2007, (EC) No 254/2002, (EC) No 2347/2002 and (EC) No 1224/2009, and Regulations (EU) No 1379/2013 and (EU) No 1380/2013 of the European Parliament and of the Council, as regards the landing obligation, and repealing Council Regulation (EC) No 1434/98
- United Nations Convention on the Law of the Sea.

Annex 1

Table 17

Fishing gear description ([546])	CODE
TRAWL NETS	
Bottom otter trawl	OTB
Nephrop trawl	TBN
Shrimp trawl	TBS
Bottom trawl (not specified)	TB
Beam trawl	TBB
Otter twin trawl	OTT
Bottom pair trawl	PTB
Midwater otter trawl	OTM
Midwater pair trawl	PTM
SEINES	
Danish anchor seine	SDN
Scottish seine (fly dragging)	SSC
Scottish pair seine (fly dragging)	SPR
Seine nets (not specified)	SX
Boat or vessel seine	SV
SURROUNDING NETS	
Surrounding net with purse line (purse seine)	PS
One boat operated purse seine	PS1
Two boat operated purse seine	PS2
Surrounding net without purse line (lampara)	LA
DREDGES	
Boat dredges	DRB
GILLNETS AND ENTANGLING NETS	
Gillnets (not specified)	GN
Gillnets anchored (set)	GNS
Gillnets (drift)	GND
Gillnets (circling)	GNC
Combined gillnets — trammel nets	GTN
Trammel nets	GTR
TRAPS	
Pots	FPO
Traps (not specified)	FIX
HOOKS AND LINES	
Handlines and pole lines (hand operated)	LHP
Handlines and pole lines (mechanised)	LHM
Set longlines	LLS
Drifting longlines	LLD
Longlines (not specified)	LL
Trolling lines	LTL
Hooks and lines (not specified)	LX
HARVESTING MACHINES	
Mechanised dredges	HMD
Miscellaneous gear	MIS
Recreational gear	RG
Gear not known or not specified	NK

([546]) Annex IX of Commission Implementing Regulation (EU) 404/2011.

Annex 2

SPECIFICATIONS FOR A SORTING GRID ([547])

1. The species selective grid shall be attached in trawls with full square mesh cod-end with a mesh size equal to or larger than 70 mm and smaller than 90 mm. The minimum length of the cod-end shall be 8 m. It shall be prohibited to use any trawl with more than 100 square meshes in any circumference of the cod-end, excluding the joining or the selvedges.

2. The grid shall be rectangular. The bars of the grid shall be parallel to the longitudinal axis of the grid. The bar spacing of the grid shall not exceed 35 millimetres. It shall be permitted to use one or more hinges in order to facilitate its storage on the net drum.

3. The grid shall be mounted diagonally in the trawl, upwards and backwards, anywhere from just in front of the cod-end to the anterior end of the untapered section. All sides of the grid shall be attached to the trawl.

4. In the upper panel of the trawl there shall be an unblocked fish outlet in immediate connection to the upper side of the grid. The opening of the fish outlet shall have the same width in the posterior side as the width of the grid and shall be cut out to a tip in the anterior direction along mesh bars from both sides of the grid.

5. It shall be permitted to attach in front of the grid a funnel to lead the fish towards the trawl floor and grid. The minimum mesh size of the funnel shall be 70 mm. The minimum vertical opening of the guiding funnel towards the grid shall be 15 cm. The width of the guiding funnel towards the grid shall be the grid width.

([547]) Article 29(d)(7)(a) and Annex XIVa of Council Regulation (EC) 850/98.

Annex 3

SQUARE MESH PANEL FOR VESSELS OF MORE THAN 15 M ([548])

1. Specifications of the top square mesh panel

The panel shall be a rectangular section of netting. The netting shall be single twine. The meshes shall be square meshes, i.e. all four sides of the panel netting shall be cut all bars. The mesh size shall be equal or more than 120 mm. The length of the panel shall be at least 3 m except when incorporated into nets towed by vessels of less than 112 kW, when it shall be of at least 2 m in length.

2. Location of the panel

The panel shall be inserted into the top panel of the cod-end. The rearmost edge of the panel shall be no more than 12 m from the codline ([549]).

3. Insertion of the panel into the diamond mesh netting

There shall be no more than two open diamond meshes between the longitudinal side of the panel and the adjacent selvedge.

The stretched length of the panel shall be equal to the stretched length of the diamond meshes attached to the longitudinal side of the panel. The joining rate between the diamond meshes of the top panel of the cod-end and the smallest side of the panel shall be three diamond meshes to one square mesh for 80 mm cod-ends, or two diamond meshes to one square mesh for 120 mm cod-ends, except for edge bars of the panel from both sides.

SQUARE MESH PANEL FOR VESSELS OF LESS THAN 15 M

1. Specifications of the top square mesh panel

The panel shall be a rectangular section of netting. The netting shall be single twine. The meshes shall be square meshes, i.e. all four sides of the panel netting shall be cut all bars. The mesh size shall be equal or more than 110 mm. The length of the panel shall be at least 3 m except when incorporated into nets towed by vessels of less than 112 kW, when it shall be of at least 2 m in length.

2. Location of the panel

The panel shall be inserted into the top panel of the cod-end. The rearmost edge of the panel shall be no more than 12 m from the codline ([550]).

3. Insertion of the panel into the diamond mesh netting

There shall be no more than two open diamond meshes between the longitudinal side of the panel and the adjacent selvedge. The stretched length of the panel shall be equal to the stretched length of the diamond meshes attached to the longitudinal side of the panel. The joining rate between the diamond meshes of the top panel of the cod-end and the smallest side of the panel shall be two diamond meshes to one square mesh, except for edge bars of the window from both sides.

([548]) Article 29(d)(7)(a) and Annex XIVc of Council Regulation (EC) 850/98.

([549]) Art. 8 of Commission Regulation (EEC) No 3440/84.

([550]) Art. 8 of Commission Regulation (EEC) No 3440/84.

Annex 4

SPECIFICATIONS FOR A SQUARE MESH PANEL ([551])

1. Specifications of the top square mesh panel

The panel shall be a rectangular section of netting. There shall be only one panel. The panel shall not be obstructed in any way by either internal or external attachments.

2. Location of the panel

The panel shall be inserted into the middle of the top panel of the rear tapered section of the trawl, just in front of the untapered section constituted by the extension piece and the cod-end.

The panel shall terminate not more than 12 meshes from the hand braided row of meshes between the extension piece and the rear tapered section of the trawl.

3. Size of the panel

The length of the panel shall be at least 2 m and the width of the panel at least 1 m.

4. Netting of the panel

The meshes shall have a minimum mesh opening of 100 mm. The meshes will be square meshes, i.e. all four sides of the panel netting shall be cut all bars.

The netting shall be mounted such that the bars run parallel and perpendicular to the longitudinal axis of the cod-end.

The netting shall be single twine. The twine thickness shall be not more than 4 mm.

5. Insertion of the panel into the diamond mesh netting

It shall be permitted to attach a selvedge on the four sides of the panel. The diameter of this selvedge shall be no more than 12 mm.

The stretched length of the panel shall be equal to the stretched length of the diamond meshes attached to the longitudinal side of the panel.

The number of diamond meshes of the top panel attached to the smallest side of the panel (i.e. 1 m long side which is perpendicular to the longitudinal axis of the cod-end) shall be at least the number of full diamond meshes attached to the longitudinal side of the panel divided by 0.7.

6. The insertion of the panel into the trawl is illustrated below.

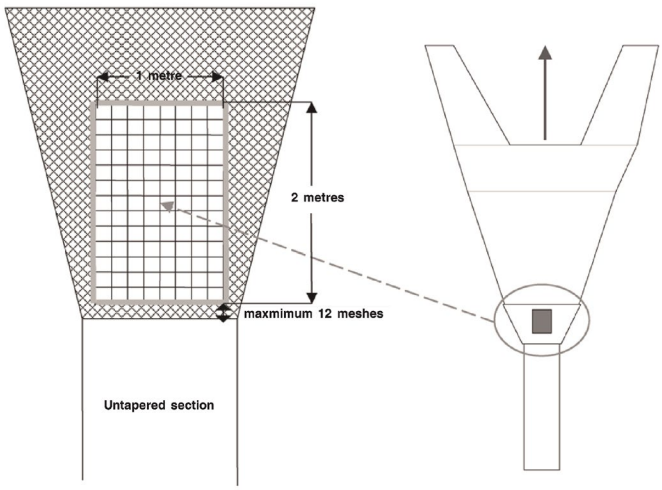


Figure 89 — *Insertion of a square mesh panel into the trawl*

([551]) Article 34(c) and Annex XIVb of Council Regulation (EC) 850/98.

Module 5 Inspect conformity with conservation measures adopted for specific regions/stocks and the landing obligation

Section 5.1 Check conformity with conservation measures adopted for specific regions/stocks

Coverage: all EU areas and all EU vessels

Objective

This section aims to give the trainee an understanding of relevant Union conservation measures ([552]), in particular those adopted for specific maritime regions and/or stocks such as multiannual plans.

Overview

Multiannual plans are concerned with the management of the principal species being fished in Union waters. All of them seek to establish stock management objectives in terms of individual breeding biomass and fishing mortality. Most of the multiannual plans currently drawn up are concerned with total allowable catches (TACs). However, a number of them also refer to other instruments such as technical measures, fishing effort restrictions or specific monitoring rules.

Following the latest common fisheries policy (CFP) reform ([553]), multiannual plans must all include a maximum sustainable yield (MSY) target and a deadline for achieving it, a discard ban and compulsory landing implementation provisions, remedial safeguards and review clauses. Two quantifiable targets for multiannual plans, fishing mortality and spawning stock biomass are also established. An essential element of the CFP reform, which affects both multiannual plans and technical measures, is regionalisation or regional cooperation regarding conservation measures. Multiannual plans appear to be the main vehicle for the adoption and implementation of specific technical measures in the context of regionalisation.

Where the Commission is accorded delegation of powers relating to multiannual plans, which are the conservation measures necessary under EU environmental legislation or compulsory landing, the Member States affected may submit joint recommendations within a specified period. Regarding the implementation of these recommendations, Member States are required to consult the advisory councils. The Commission may adopt the measures recommended by delegated acts and may also submit proposals if the Member States do not all succeed in agreeing on joint recommendations within the set time limit. The Commission may also submit proposals if the joint recommendations are deemed not to be compatible with the objectives and quantifiable targets of the conservation measures. The only possible action that may be taken by the European Parliament is to object to a delegated act within a period of 2 months.

These new provisions have an impact on technical measures and largely depend on the presence or absence of multiannual plans and require the adoption of delegated acts by the Commission. For example, where no multiannual plan or management plan has been adopted for a given fishery, the Commission is empowered to adopt delegated acts laying down, on a temporary basis (no more than 3 years), a specific discard plan, which can also include modifications regarding minimum size.

The adoption of specific control and inspection programmes (SCIPs) enables Member States to provide effective resources, and it is facilitated through joint deployment plans

([552]) Articles 6 to 20 of Regulation (EU) No 1380/2013.

([553]) Regulation (EU) No 1380/2013.

(JDPs), which is the operational coordination between Member States being facilitated through the European Fisheries Control Agency (EFCA) ([554]).

It is therefore important that inspectors, and in particular Union inspectors, are aware of the control provisions of multiannual plans and their associated conservation measures, especially the specific recording and reporting obligations placed upon the master.

Entry requirements

The trainee should have completed fisheries national training programmes and have sufficient experience as a national inspector to meet the criteria established for a Union inspector ([555]).

([554]) Articles 4, 5, 7, 8, 9 and 10 of Regulation (EC) No 768/2005.

([555]) Article 119 of Commission Implementing Regulation (EC) No 404/2011.

Chapter 5.1.1 — Check required declarations made by the master with regard to conservation measures adopted for specific regions/stocks

Part A Introduction

This chapter deals with declarations made by the master in respect of conservation measures and focuses on multiannual plans.

Part B Concepts and definitions

(a) **Conservation measures** ([556])

Measures for the conservation and sustainable exploitation of marine biological resources may include, *inter alia*, the following:

- multiannual plans;
- targets for the conservation and sustainable exploitation of stocks and related measures to minimise the impact of fishing on the marine environment;
- measures to adapt the fishing capacity of fishing vessels to available fishing opportunities;
- incentives, including those of an economic nature such as fishing opportunities, to promote fishing methods that contribute towards more selective fishing, towards the avoidance and reduction, as far as possible, of unwanted catches and towards fishing with low impact on the marine ecosystem and fishery resources;
- measures on the fixing and allocation of fishing opportunities;
- measures to achieve the objectives of the landing obligation;
- minimum conservation reference sizes (MCRS);
- pilot projects on alternative types of fishing management techniques and on gears that increase selectivity or that minimise the negative impact of fishing activities on the marine environment;
- measures necessary for compliance with obligations under Union environmental legislation;
- technical measures.

(b) **Multiannual plans** ([557])

Multiannual plans are conservation measures adopted for several years in order to restore and maintain particular fish stocks above levels capable of producing the maximum sustainable yield.

(c) **Maximum sustainable yield (MSY)** ([558])

MSY is defined as the highest theoretical equilibrium yield that can generally be continuously taken from a stock under existing average environmental conditions without significantly affecting the reproduction process. The TAC is the maximum catch that can be taken that still enables a stock to recover or maintain its population size.

(d) **Specific control and inspection programme (SCIP)**

An SCIP ([559]) is a decision adopted by the Commission in concert with Member States and one that provides for control and inspection objectives, priorities and procedures, as well as benchmarks for control and inspection activities associated with a multiannual

([556]) Article 7 of Regulation (EU) No 1380/2013.

([557]) Articles 9 and 10 of Regulation (EU) No 1380/2013.

([558]) Article 4(7) of Regulation (EU) No 1380/2013.

([559]) Article 95 of Regulation (EC) No 1224/2009.

plan. The SCIP is established for a limited period and may be extended. The respective levels for control and inspections are implemented by Member States that have a direct fisheries management interest on the basis of a risk management strategy as well as benchmarks defined by the SCIP.

Part C Data and information sources

Electronic reporting system (ERS)

Logbook

Vessel monitoring system (VMS)

Prior notifications

Part D Methodology

The following subparts outline the general and specific additional requirements for declarations and associated inspection activities in each of the current multiannual plans in EU and other waters and, where appropriate, for the associated SCIPs, which will be covered in Chapter 6.2.1.

General

Prior notification of arrival in port

Masters of vessels with a length overall of over 12 m and engaged in fisheries subject to multiannual plans shall send a prior notification message at least 4 hours before arrival in port. Inspectors should verify that the prior notification contains, as a separate entry, details of quantities of species subject to the landing obligation that are retained on board and are below the applicable MCRS for each species ([560]).

Landing obligation

Inspectors should also ensure that any quantities of species subject to the landing obligation below the applicable MCRS retained on board are stowed separately and not mixed with other species, unless the vessel has a length overall of less than 12 m ([561]) or unless the catches contain more than 80 % of small pelagic or industrial species ([562]).

VMS

Inspectors should cross-check the declared fishing areas against the VMS.

Designated ports

Each Member State shall designate ports or places close to the shore where fishing vessels shall be required to land amounts of live weight of species above a certain threshold and subject to certain multiannual plans. Designated ports shall meet the following criteria:

(a) there are established landing or transhipment times;

(b) there are established landing or transhipment places;

(c) there are established inspection and surveillance procedures.

The Baltic Sea

Multiannual plan for stocks of cod, herring and sprat in the Baltic Sea ([563])

Logbook

Inspectors should verify that masters of vessels of 8 metres overall length or more engaged in targeted fishing cod comply with the obligation to keep and submit a logbook of their operations ([564]). For catches landed unsorted, the permitted margin of tolerance shall be 10% of the total quantity retained on board ([565]).

([560]) Articles 17 and 18 of Regulation (EC) No 1224/2009.

([561]) Article 49(a) of Regulation (EC) No 1224/2009.

([562]) Species as listed in point (a) of Article 15(1) of Regulation (EU) No 1380/2013.

([563]) Regulation (EU) No 2016/1139.

([564]) Article 12 of Regulation (EU) No 2016/1139.

([565]) Article 13 of Regulation (EU) No 2016/1139.

Prior notifications ([566])

Inspectors should verify that masters of vessels of 8 metres overall length or more having more than 300 kg of cod or 2 tonnes of pelagic stocks retained on board, comply with the obligation to send a prior notification message at least 1 hour before the estimated time of arrival at port. The competent authorities of the coastal Member States may, on a case-by-case basis, give permission to an on earlier entry in port ([567]).

Designated port

Inspectors should verify the quantities of cod on board against the estimates recorded in the logbook in accordance with the obligation to land, which is > 750 kg of cod or 5 tonnes of pelagic stocks in a designated port ([568]).

SCIP

The associated SCIP concerning the exploitation of cod, herring, salmon and sprat in the Baltic Sea is covered in Chapter 6.2.1.

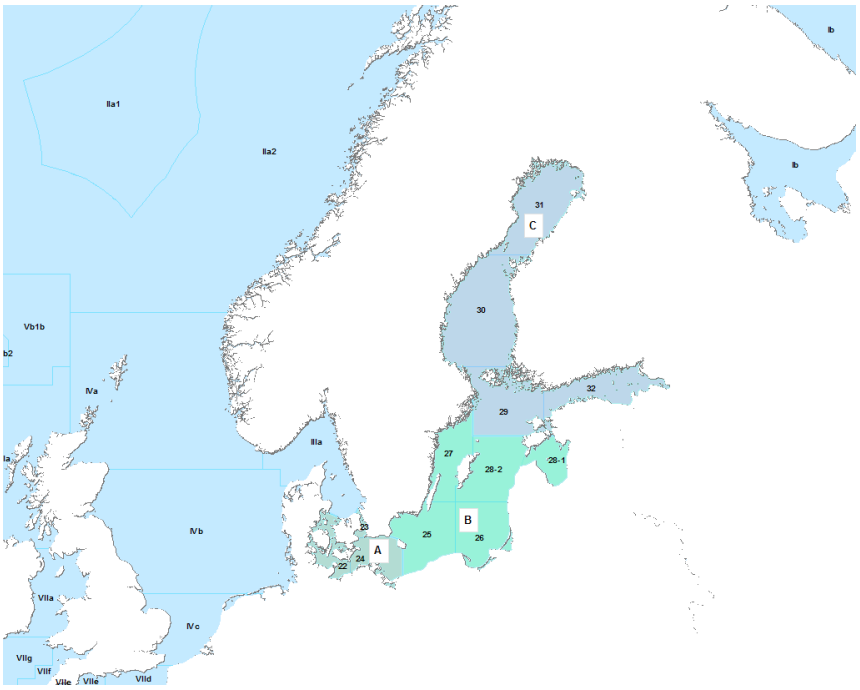


Figure 90 — *Areas covered by the multiannual plan for stocks of cod, herring and sprat in the Baltic Sea*

Region 2

Long-term plan for cod stocks ([569])

Designated port

Any landings of over 2 tonnes of cod shall be made in a designated port ([570]). Therefore inspectors should pay careful attention to the quantities of cod retained on board that are to be landed and recorded in the logbook.

Separate stowage

Inspectors should ensure that the quantities of cod on board are not mixed with other species and that they have been stowed separately in the fish room according to a stowage plan ([571]).

SCIP

The associated SCIP concerning the exploitation of stocks of cod, plaice and sole in the North Sea, Kattegat, the Skagerrak, the Eastern Channel, the waters west of Scotland and the Irish Sea is covered in Chapter 6.2.1.

([566]) Article 13 of Regulation (EU) No 2016/1139.

([567]) Article 13 of Regulation (EU8) No 2016/1139.

([568]) Article 14 of Regulation (EU) No 2016/1139.

([569]) Council Regulation (EC) No 1342/2008.

([570]) Article 25 of Council Regulation (EC) No 1342/2008.

([571]) Article 44 of Regulation (EC) No 1224/2009.

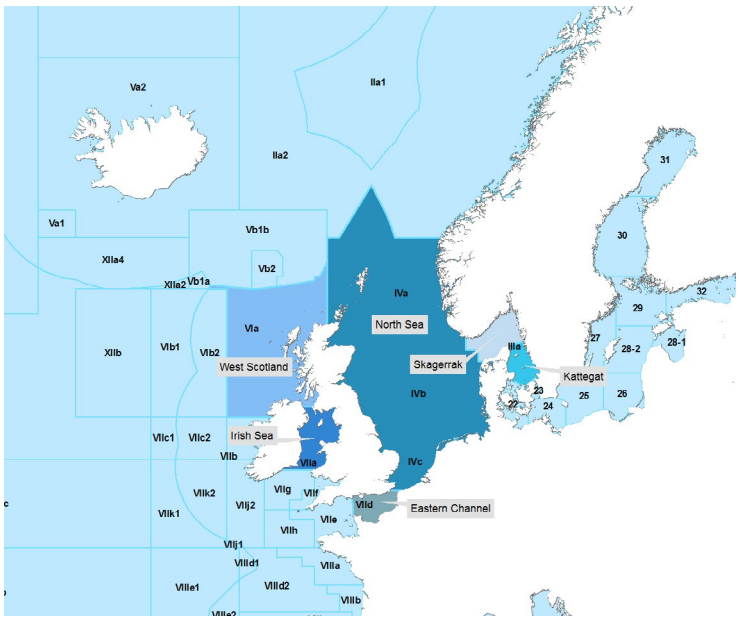


Figure 91 — *Areas covered by the long-term plan for cod stocks*

Multiannual plan for plaice and sole in the North Sea ([572])

Separate stowage

Inspectors should ensure that the quantities of plaice and sole retained on board are to be landed. Inspectors should also ensure they are not mixed with other species and that they have each been stowed separately in the fish room, according to a stowage plan ([573]).

SCIP

The associated SCIP concerning the exploitation of stocks of cod, plaice and sole in the Kattegat, the Skagerrak, the Eastern Channel, the waters west of Scotland and the Irish Sea is covered in Chapter 6.2.1.

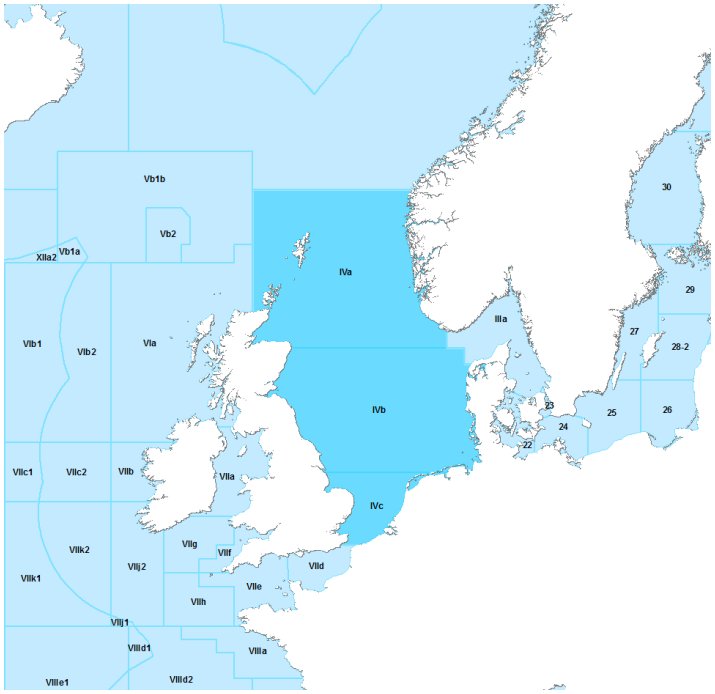


Figure 92 — *Areas covered by the multiannual plan for plaice and sole in the North Sea*

([572]) Article 44 of Regulation (EC) No 1224/2009 and Regulation (EC) No 676/2007.

([573]) Article 44 of Regulation (EC) No 1224/2009.

Multiannual recovery plan for northern hake ([574])

Separate stowage

Inspectors should ensure that the quantities of hake retained on board are to be landed. Inspectors should also ensure they are not mixed with other species and that they have each been stowed separately in the fish room, according to a stowage plan ([575]).

Designated port

Any landings of over 2 tonnes of northern hake must be made in a designated port ([576]). Therefore inspectors should pay careful attention to the quantities of hake retained on board.

Inspectors should note that there is no SCIP associated with the recovery plan, and when they are planning for inspections they should take account of specific inspection benchmarks set out in the national control action programme.

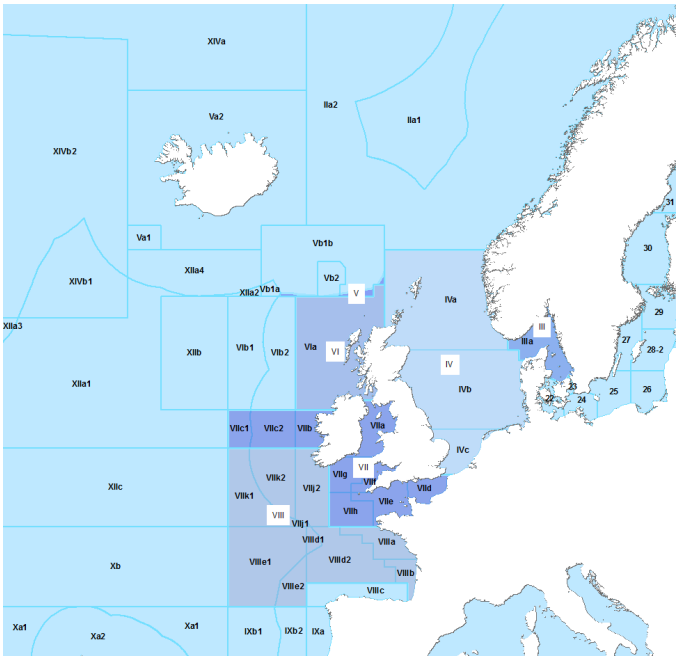


Figure 93 — *Areas covered by the multiannual recovery plan for northern hake*

Multiannual plan for sole in the Western Channel ([577])

Separate stowage

Inspectors should ensure that the quantities of sole retained on board are not mixed with other species and that they have been stowed separately in the fish room, according to a stowage plan ([578]).

Inspectors should note that there are no additional requirements for declarations by the master in the multiannual plan and that there is no SCIP associated with the multiannual plan. When inspectors are planning for inspections, they should also take account of specific inspection benchmarks set out in the national control action programme.

([574]) Regulation (EC) No 811/2004.

([575]) Article 44 of Regulation (EC) No 1224/2009.

([576]) Article 9 of Regulation (EC) No 811/2004.

([577]) Regulation (EC) No 509/2007.

([578]) Article 44 of Regulation (EC) No 1224/2009.

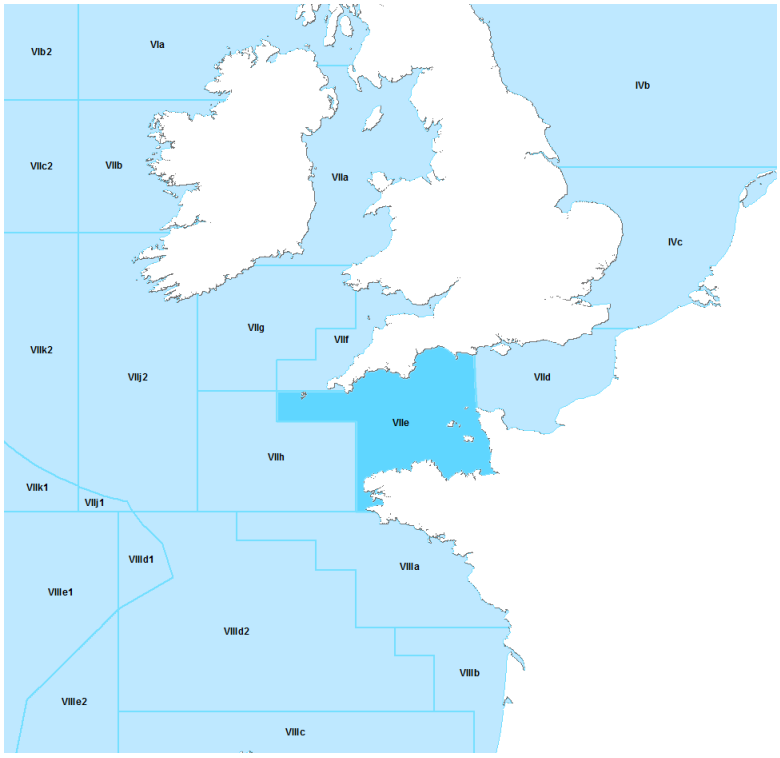


Figure 94 — *Area covered by the multiannual plan for sole in the Western Channel*

Multiannual plan for herring to the west of Scotland ([579])

The associated SCIP concerning the exploitation of pelagic stocks in Western Waters of the north-east Atlantic is covered in Chapter 6.1.2.

There are no specific conservation measures in the multiannual plan for herring to the west of Scotland.

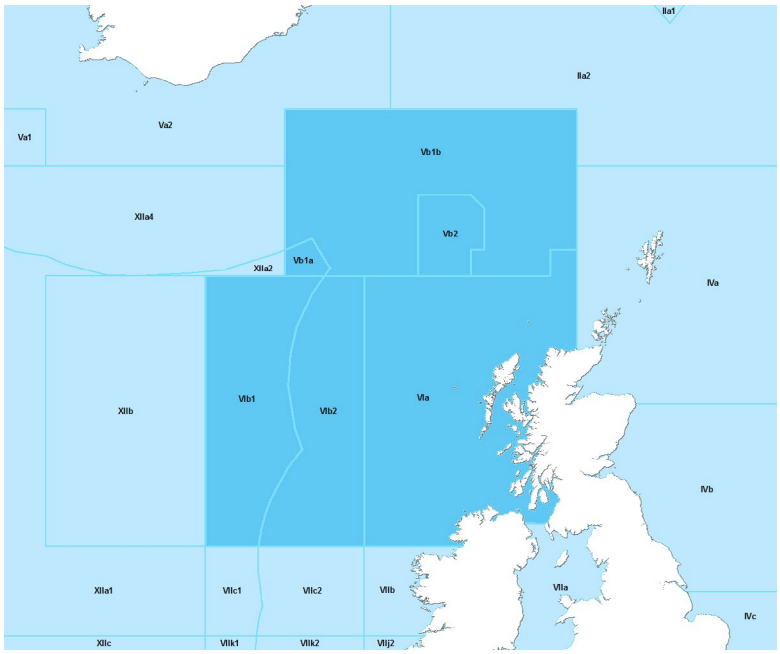


Figure 95 — *Areas covered by the multiannual plan for herring to the west of Scotland*

([579]) Regulation (EC) No 1300/2008.

Region 3

Multiannual plan for recovery of southern hake and of Norway lobster in the Cantabrian Sea and the western Iberian peninsula ([580])

Separate stowage

Inspectors should ensure that the quantities of southern hake and of Norway lobster retained on board are not mixed with other species and that they have been stowed separately in the fish room (subject to the length overall of the fishing vessel), according to a stowage plan ([581]).

There are no additional requirements for declarations by the master in the recovery plan. Inspectors should note that there is no SCIP associated with the recovery plan and that when they are planning for inspections, they should take account of specific inspection benchmarks set out in the national control action programme.

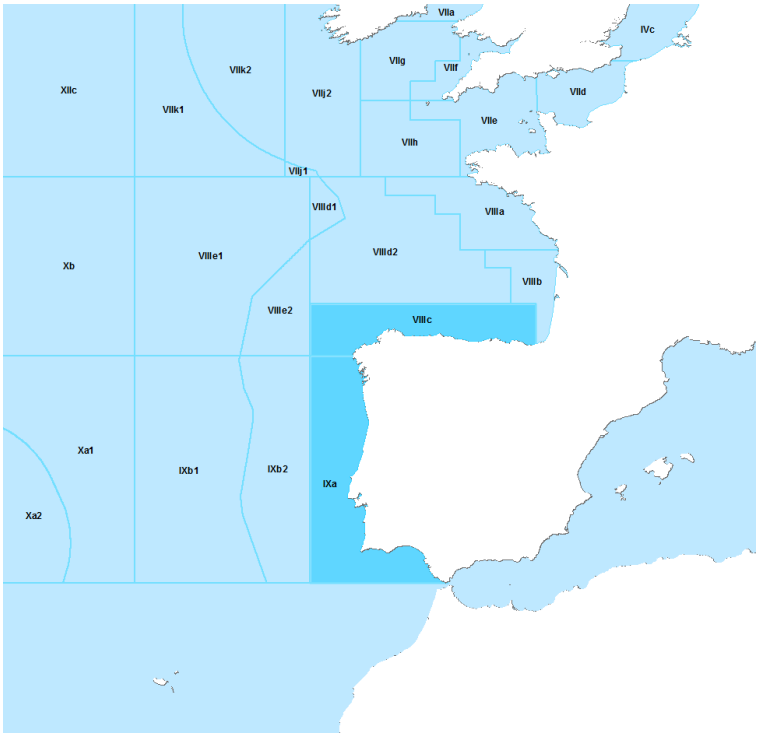


Figure 96 — *Areas covered by the multiannual plan for recovery of southern hake and of Norway lobster in the Cantabrian Sea and the western Iberian peninsula*

- **Multiannual plan for sole in the Bay of Biscay ([582])**

Separate stowage

Inspectors should ensure that the quantities of sole retained on board are not mixed with other species and that they have been stowed separately in the fish room, according to a stowage plan ([583]).

There are no additional requirements for declarations by the master in the recovery plan.

Inspectors should note that there is no SCIP associated with the recovery plan and that when they are planning for inspections, they should take account of specific inspection benchmarks set out in the national control action programme.

([580]) Regulation (EC) No 2166/2005.

([581]) Article 44 of Regulation (EC) No 1224/2009.

([582]) Regulation (EC) No 388/2006.

([583]) Article 44 of Regulation (EC) No 1224/2009.

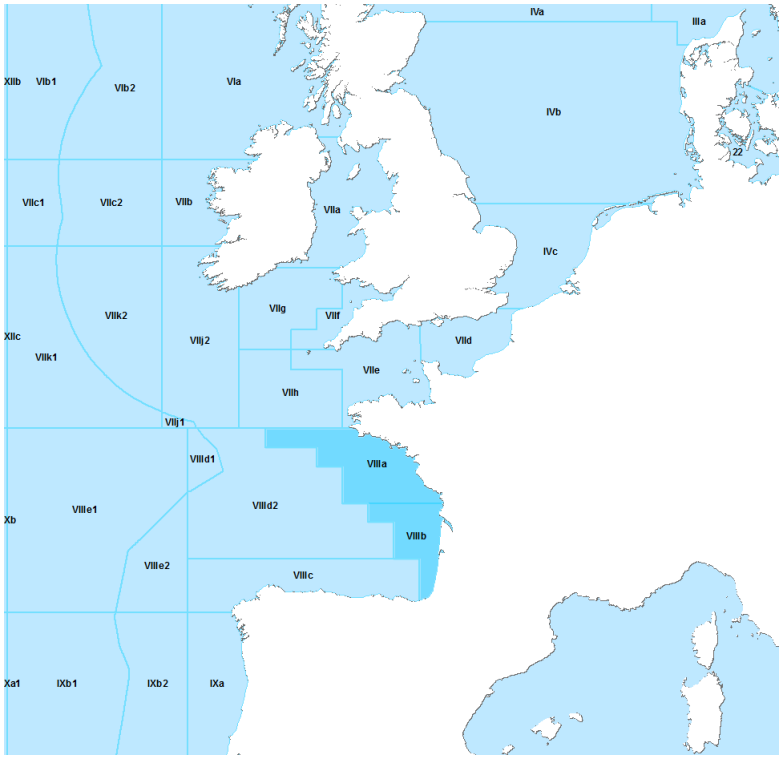


Figure 97 — *Areas covered by the multiannual plan for sole in the Bay of Biscay*

The Mediterranean and the eastern Atlantic

- **Multiannual plan for bluefin tuna in the Mediterranean Sea and the eastern Atlantic ([584])**

General principle

A vessel that has failed in its catch-reporting requirement must be physically inspected ([585]).

Logbook

Inspectors should verify that the master has conformed with the additional obligations of the standard logbook rules (see Chapter 2.2.3.). Specifically, the master of a vessel in a fishing operation for bluefin tuna, including joint fishing operations, must record certain additional information ([586]), including in particular the following.

- Vessel name, register number, International Commission for the Conservation of Atlantic Tunas (ICCAT) number and International Maritime Organisation (IMO) number (if available). In case of joint fishing operations, vessel names, register numbers, ICCAT numbers and IMO numbers (if available) of all the vessels involved in the operation.
- Operations at sea recorded with one line (minimum) per day of trip and exact daily positions (in degree and minutes) recorded for each fishing operation or at noon when no fishing has been conducted during the day.
- Observer's signature (if applicable).
- Means of weight measure: estimation, weighing on board.

([584]) Regulation (EU) No 2016/1627.

([585]) Article 54 of Regulation (EU) No 2016/1627.

([586]) Article 25 of Regulation (EU) No 2016/1627.

- For catching vessels involved in a joint fishing operation ([587]):
  - » as regards the catching vessel involved in the transfer of the fish into cages:
    - the date and time of the transfer,
    - the location of the transfer (longitude/latitude),
    - amount of catches taken on board and number of fish and quantity in kg transferred into cages,
    - amount of catches counted against its individual quota,
    - the name of the towing vessel and its ICCAT number;
    - the name of the farm of destination and its ICCAT number.
  - » as regards the other catching vessel(s) not involved in the transfer of the fish:
    - the date and time of the transfer,
    - the location of the transfer (longitude/latitude),
    - that no catches have been taken on board or transferred into cages,
    - amount of catches counted against their individual quotas,
    - the name and the ICCAT number of the catching vessel transferring the fish into cages (meaning the vessel that actually caught the fish),
    - the name of the towing vessel and its ICCAT number,
    - the name of the farm of destination and its ICCAT number.

Prior arrival notification.

Masters of fishing vessels of 12 metres length overall or more shall notify the following information at least 4 hours in advance of arrival to the competent authority of the Member State (including the flag Member State) or Contracting Party whose ports or landing facility they wish to use ([588]):

- the external identification number and the name of the fishing vessel;
- the name of the port of destination and the purposes of the call, such as landing, transhipment or access to services;
- the dates of the fishing trip and the relevant geographical areas in which the catches were taken;
- the estimated date and time of arrival at port;
- the quantities of each species recorded in the fishing logbook, including those below the applicable minimum conservation reference size, as a separate entry;
- the quantities of each species to be landed or trans-shipped, including those below the applicable minimum conservation reference size, as a separate entry.

Masters of Union fishing vessels under 12 metres length overall shall, within the same deadline, notify the competent authority of the Member State (including the flag Member State) or the CPC whose ports or landing facility they wish to use, at least of the following:

- estimated time of arrival;
- estimated quantity of bluefin tuna retained on board; and
- information on the geographical area where the catches were taken.

Designated ports

All landings or transhipments of bluefin tuna must be carried out in a designated port ([589]).

([587]) Article 25 of Regulation (EU) No 2016/1627.

([588]) Article 31 of Regulation (EU) No 2016/1627.

([589]) Article 30 of Regulation (EU) No 2016/1627.

Figure 98 — *Transhipment of bluefin tuna from a catching vessel (purse seiner) to another vessel*

Transhipment

Transhipment at sea is prohibited in Union waters ([590]). The master of the receiving vessel must notify the following information at least 48 hours prior to transhipment in port:

- estimated date, time and port of arrival;
- estimated quantity of bluefin tuna retained on board and information on the geographic area where it was taken;
- the name of the transhipping fishing vessel and its number in the ICCAT record of catching vessels authorised to actively fish for bluefin tuna or in the ICCAT record of other fishing vessels authorised to operate in the eastern Atlantic and the Mediterranean;
- the name of the receiving fishing vessel and its number in the ICCAT record of catching vessels authorised to actively fish for bluefin tuna or in the ICCAT record of other fishing vessels authorised to operate in the eastern Atlantic and the Mediterranean;
- the tonnage and the geographic area of the catch of bluefin tuna to be transhipped.

The master of the transhipping fishing vessel must notify of the following information and not commence transhipment until authorised:

- the quantities of bluefin tuna to be transhipped;
- the date and port of the transhipment;
- the name, registration number and flag of the receiving fishing vessel and its number in the ICCAT record of catching vessels authorised to actively fish for bluefin tuna or in the ICCAT record of other fishing vessels authorised to operate for bluefin tuna;
- the geographical area of the catch of bluefin tuna.

([590]) Article 32 of Regulation (EU) 2016/1627

The receiving vessel should be inspected in advance of transhipment and an ICCAT transhipment declaration shall be completed and submitted to the competent authorities by the master of the fishing vessel no later than 48 hours after the transhipment ([591]).

Caging operations

A caging report, validated by the ICCAT regional observer, must be submitted within 1 week of a caging operation ([592]). It shall be prohibited to place bluefin tuna in cages for the purpose of farming or fattening if they are not accompanied by a bluefin tuna catch document (BCD) ([593]). The caging operation must be monitored by video camera in the water.

VMS

All fishing vessels ([594]), including tug and towing vessels, irrespective of their length are subject to VMS ([595]) provisions. Fishing vessels that are included in the ICCAT record of 'catching vessels' authorised to actively fish ([596]) for bluefin tuna shall start transmitting at least 15 days before their period of authorisation and shall continue to transmit until 15 days after their period of authorisation. Fishing vessels included in the ICCAT records of 'BFT other vessels' shall transmit VMS positions for the whole period of authorisation.

Tuna trap activities

Catches shall be recorded within 48 hours of any fishing activity using traps ([597]).

Cross-checks

Member States shall cross-check inspection reports, national observer reports, VMS data, logbooks and transfer/transhipment documents ([598]).

- The following is the catch documentation programme for bluefin tuna.
  - » Inspectors shall require a completed and validated e-BCD ([599]) to be submitted for each bluefin tuna landed or transhipped at their ports or caged or harvested from their farms ([600]).
  - » Member States may require uniquely numbered tags to be attached to each bluefin tuna which should be traceable to the e-BCD ([601]). Inspectors should, where appropriate, cross-check the tag numbers against the relevant e-BCD.
  - » Bluefin tuna that are caught as by-catch in the eastern Atlantic and in the Mediterranean by vessels not authorised to actively fish for bluefin tuna pursuant to Recommendation 14-04 may be traded ([602]). This is for landings of quantities of bluefin tuna less than 1 metric tonne or three fish and of which these quantities remain within that specific allowed quota margin. The consignment shall be subject to a BCD, and if a paper BCD is issued it shall be converted to an e-BCD within a period of 7 working days or prior to export, whichever is first ([603]).

The associated SCIP established for fisheries exploiting stocks of bluefin tuna in the eastern Atlantic and in the Mediterranean, of swordfish in the Mediterranean and of sardine and anchovy in the northern Adriatic is covered in Chapter 6.2.1. ([604]).

([591]) Article 32 of Regulation (EU) No 2016/1627.

([592]) Articles 40-48 of Regulation (EU) No 2016/1627.

([593]) Regulation (EU) No 640/2010.

([594]) Article 3 of Regulation (EU) No 2016/1627.

([595]) Article 49 of Regulation (EU) No 2016/1627.

([596]) Article 49 of Regulation (EU) No 2016/1627.

([597]) Article 26 of Regulation (EU) No 2016/1627.

([598]) Article 55 of Regulation (EU) No 2016/1627.

([599]) ICCAT Recommendation 15-05.

([600]) Article 3 and 4 and Annexes II, III and IV of Regulation (EU) No 640/2010.

([601]) Article 5 of Regulation (EU) No 640/2010.

([602]) ICCAT Recommendation 15-05.

([603]) ICCAT Recommendations 11-20, 14-04 and 15-10.

([604]) Commission Implementing Decision 2014/156/EU of 19 March 2014.

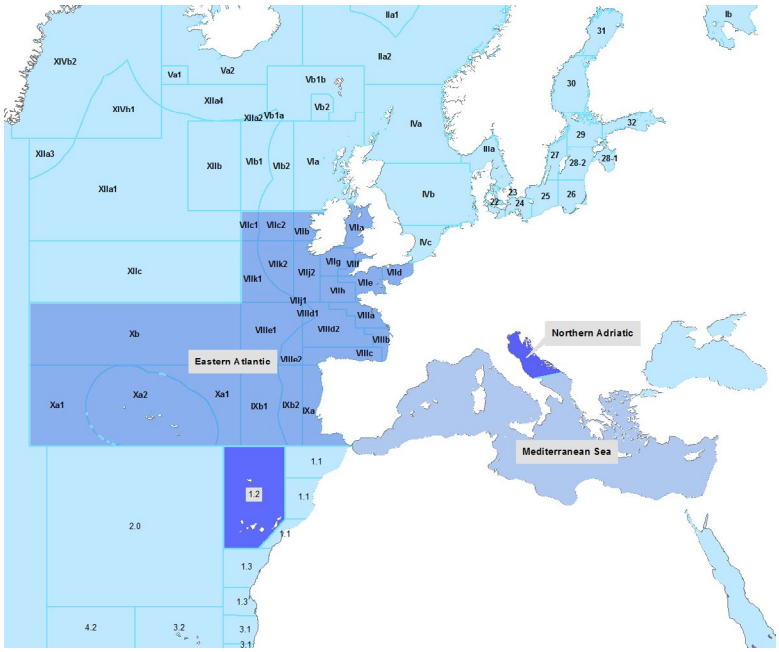


Figure 99 — *Areas covered by the multiannual plan for bluefin tuna in the eastern Atlantic and the Mediterranean Sea*

- **Deep-sea stocks ([605])**

Inspectors should note that there is no SCIP associated with the specific access requirements and associated conditions applicable to fishing for deep-sea stocks.

Scientific name	Common name
Aphanopus carbo	Black scabbardfish
Apristuris spp.	Iceland catshark
Argentina silus	Greater silver smelt
Beryx spp.	Alfonsino
Centrophorus granulosus	Gulper shark
Centrophorus squamosus	Leafscale gulper shark
Centroscyllium fabricii	Black dogfish
Centroscymnus coelolepis	Portuguese dogfish
Coryphaenoides rupestris	Roundnose grenadier
Dalatias licha	Kitefin shark
Deania calceus	Birdbeak dogfish
Etmopterus princeps	Great lanternshark
Etmopterus spinax	Velvet belly lanternshark
Galeus melastomus	Blackmouth dogfish
Galeus murinus	Mouse catshark
Hoplostethus atlanticus	Orange roughy
Molva dypterigia	Blue ling
Phycis blennoides	Forkbeard
Centroscymnus crepidater	Longnose velvet dogfish
Scymnodon ringens	Knifetooth dogfish
Hexanchus griseus	Bluntnose sixgill shark
Chlamydoselachus anguineus	Frilled shark
Oxynotus paradoxus	Sailfin roughshark (Sharpback shark)
Somniosus microcephalus	Greenland shark

([605]) Regulation (EU) No 2016/2336.

Inspectors should verify that a fishing vessel holds an authorisation to fish for deep-sea species.

Fishing vessels not holding a deep-sea fishing authorisation shall be prohibited from fishing for deep-sea species in excess of 100 kg in each fishing trip. However, unintended catches of deep-sea species subject to the landing obligation shall be landed and counted against quotas ([606]).

Inspectors should verify that the master has recorded the following additional information concerning the fishing gear in the logbook (paper or electronic format) ([607]).

- For vessels using long lines: the average number of hooks, total time the lines have been in the sea during any 24-hour period, the number of shots and the fishing depth;
- For vessels using fixed nets: the mesh size, the length and height of the nets, the total time the nets have been in the sea during any 24-hour period, the number of hauls and the fishing depth;
- For vessels using trawls: the mesh size, the total time the nets have been in the sea during any 24-hour period, the number of hauls and the fishing depth.

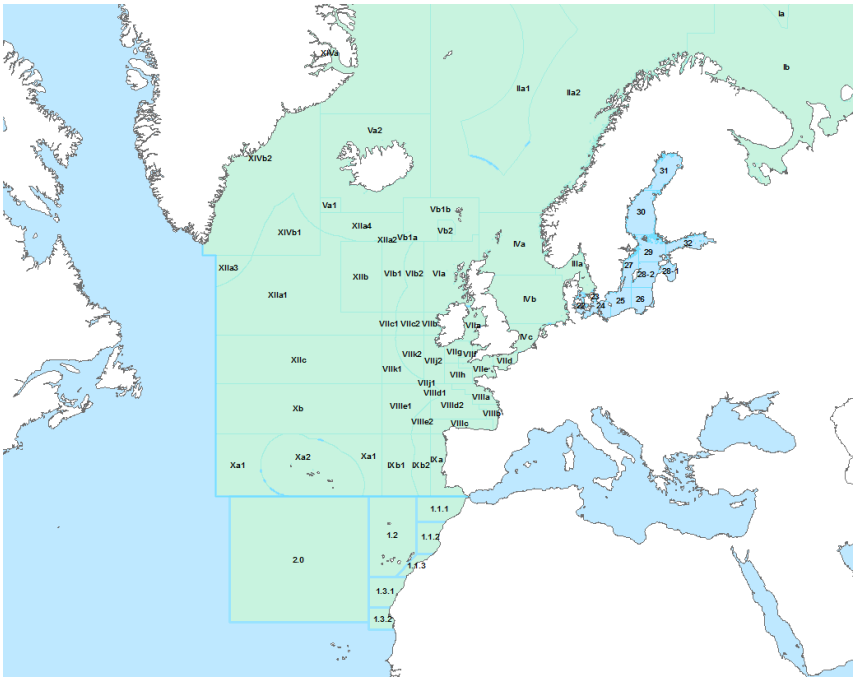


Figure 100 — *Areas covered by the specific access requirements and associated conditions applicable to fishing for deep-sea stocks*

([606]) Article 5 of Regulation (EU) No 2016/2336.

([607]) Article 13 of Regulation (EU) No 2016/2336

Chapter 5.1.2 — Check conformity of gear with regard to conservation measures adopted for specific regions/stocks

Part A Introduction

In addition to the restrictions imposed on fishing gear, which have already been addressed in Module 4, further conditions have been imposed on the use of some gears by specific legislation intended to assist the recovery of certain stocks. This type of legislation is referred to as recovery measures or; multiannual or long-term plans and is geographically orientated.

Under the rules of the CFP, this legislation includes specific gear requirements applicable to exemptions from the landing obligation ([608]) and the ban on discards and unwanted catches. The requirements of these extra conditions are listed below, by geographical area.

Part B Concepts and definitions

See Chapter 5.1.1.

Part C Data and information sources

See Chapter 5.1.1.

Part D Methodology

Inspectors should establish the legality of the gear in regards to such conservation measures, as follows.

- Establish whether there are any additional technical measures in place, bearing in mind the area of operation, the period and the type of gear in use.
- If there are any such additional technical measures in place, check that the gear conforms to the relevant requirements.
- Due to the complexity of the requirements, best practice would be for inspectors to be in possession of a summary of these requirements relevant to the area of inspection activities. This would allow inspectors to cross-reference any apparent infringement before taking appropriate enforcement action.

([608]) Article 15 of Regulation (EU) No 1380/2013.

The Baltic Sea

Multiannual plan for cod stocks in the Baltic Sea

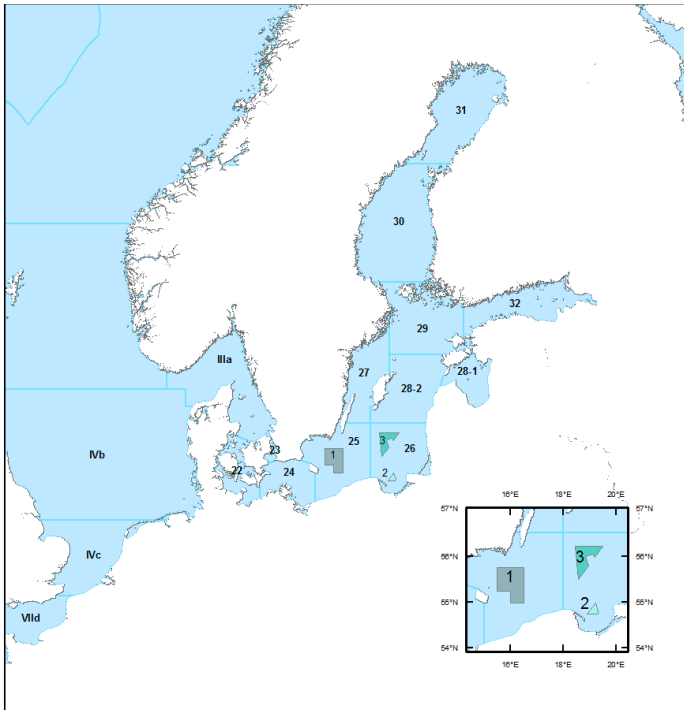


Figure 101 — *Areas subject to extra technical requirements for cod in the Baltic Sea*

Table 1 — *Extra technical requirements for cod in the Baltic Sea* ([609])

Area	Extra technical conditions
[See Figure 101, area No 1] The area enclosed by straight lines sequentially joining the following geographical coordinates: 55° 45′ N, 15° 30′ E 55° 45′ N, 16° 30′ E 55° 00′ N, 16° 30′ E 55° 00′ N, 16° 00′ E 55° 15′ N, 16° 00′ E 55° 15′ N, 15° 30′ E 55° 45′ N, 15° 30′ E	From 1 May to 31 October — It shall be prohibited for fishing vessels to fish with any gear except gillnets, entangling nets and trammel nets of a mesh size of at least 157 mm or drifting lines; no other gear shall be kept on board. — The provision shall not apply to unintended catches of species subject to the landing obligation. Any unintended catches shall be landed and counted against quota.
[See Figure 101, area No 2] The area enclosed by straight lines sequentially joining the following geographical coordinates: 55° 00′ N, 19° 14′ E 54° 48′ N, 19° 20′ E 54° 45′ N, 19° 19′ E 54° 45′ N, 18° 55′ E 55° 00′ N, 19° 14′ E	From 1 May to 31 October — It shall be prohibited for fishing vessels to fish with any gear except gillnets, entangling nets and trammel nets of a mesh size of at least 157 mm or drifting lines; no other gear shall be kept on board. — The provision shall not apply to unintended catches of species subject to the landing obligation. Any unintended catches shall be landed and counted against quota.
[See Figure 101, area No 3] The area enclosed by straight lines sequentially joining the following geographical coordinates: 56° 13′ N, 18° 27′ E 56° 13′ N, 19° 31′ E 55° 59′ N, 19° 13′ E 56° 03′ N, 19° 06′ E 56° 00′ N, 18° 51′ E 55° 47′ N, 18° 57′ E 55° 30′ N, 18° 34′ E 56° 13′ N, 18° 27′ E.	From 1 May to 31 October — It shall be prohibited for fishing vessels to fish with any gear except gillnets, entangling nets and trammel nets of a mesh size of at least 157 mm or drifting lines; no other gear shall be kept on board. — The provision shall not apply to unintended catches of species subject to the landing obligation. Any unintended catches shall be landed and counted against quota.

([609]) Regulation (EC) No 2187/2005..

Regions 2 and 3

Long-term plans for cod stocks

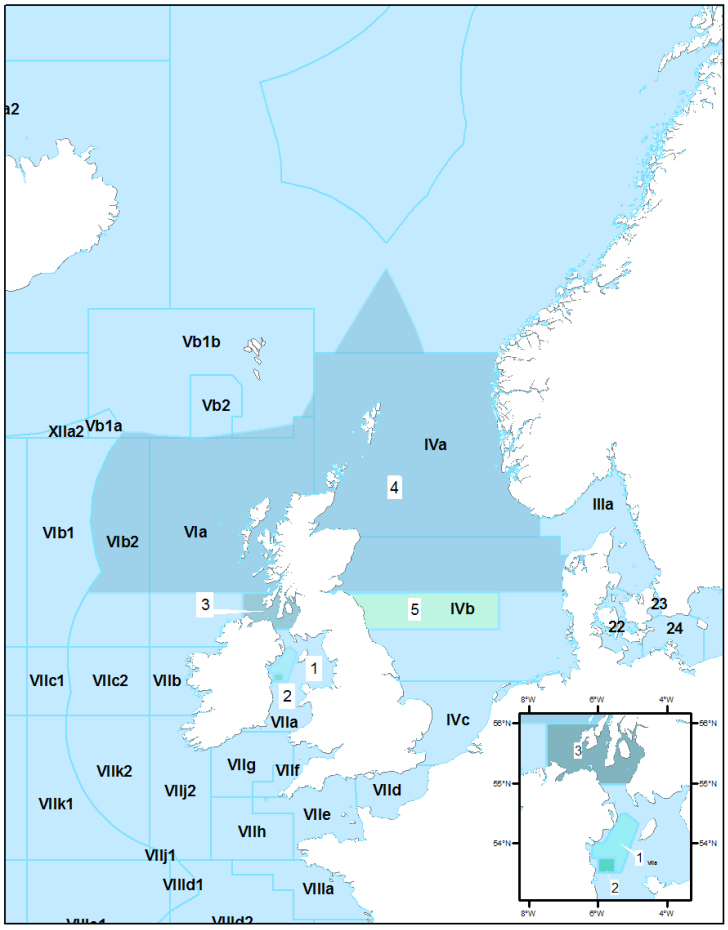


Figure 102 — *Areas subject to extra technical requirements for cod in Region 2*

Table 2 — *Extra technical requirements for cod in Region 2* ([617])

Area	Extra technical conditions
ICES Division VIIa (Irish Sea) *[See Figure 102]*	When fishing in the Irish Sea, it is prohibited to use ([618]): — any demersal towed net other than beam trawls incorporating a cod-end and/or extension piece made entirely or partly of multiple twine netting materials; — any demersal towed net other than beam trawls incorporating a cod-end and/or extension piece of which the thickness of the twine exceeds 6 mm; — any demersal towed net other than beam trawls incorporating a cod-end of a mesh size of 70 mm to 79 mm or 80 mm to 89 mm having more than 120 meshes in any circumference of the cod-end, excluding the joinings and selvedges; — any demersal towed net that includes any individual quadrilateral mesh of which the bars are not of approximately equal length; — any demersal towed net other than beam trawls of a mesh size of 70 mm to 79 mm or 80 mm to 99 mm unless the entire upper half of the front part of the net consists of a panel of netting material attached directly to the headline, extending towards the rear for at least 15 meshes and made of diamond-meshed material of which no individual mesh is less than 140 mm; — any beam trawl of a mesh size of 70 mm to 79 mm or 80 mm to 99 mm unless the entire upper half of the front part of the net consists of a panel of netting material attached directly to the headline, extending towards the rear for at least 30 meshes and made of diamond-meshed material of which no individual mesh is less than 180 mm; — any demersal towed net other than beam trawls of a mesh size of 80 mm to 99 mm unless a square-meshed panel of a mesh size of at least 80 mm is included in the net; — any demersal towed net to which a cod-end of a mesh size less than 100 mm is somehow attached, other than being sewn to the lengthening piece; — any separator trawl, except when no other type of fishing gear is retained on board and such nets are of a mesh size of either 70 mm to 79 mm or 80 mm to 99 mm, are of only one permitted mesh size range, are incorporated within the net in any mesh size greater than 300 mm and are deployed only in the following area ([619]): *[See Figure 102, area No 1]* • 53° 30′ N, 05° 30′ W • 53° 30′ N, 05° 20′ W • 54° 20′ N, 04° 50′ W • 54° 30′ N, 05° 10′ W • 54° 30′ N, 05° 20′ W • 54° 00′ N, 05° 50′ W • 54° 00′ N, 06° 10′ W • 53° 45′ N, 06° 10′ W • 53° 45′ N, 05° 30′ W • 53° 30′ N, 05° 30′ W; — separator trawls may also be used within the following area provided that no other type of fishing gear is retained on board and such nets are constructed in accordance with specific technical details ([620]): *[See Figure 102, area No 2]* • 53° 45′N 06° 00′W • 53° 45′N 05° 30′W • 53° 30′N 05° 30′W • 53° 30′N 06° 00′W • 53° 45′N 06 °00′W

([617]) Regulation (EC) No 2549/2000, Regulation (EC) No 254/2002 and Commission Regulation (EC) No 2056/2001.

([618]) Article 2 of Regulation (EC) No 2549/2000.

([619]) Article 2(2)(a) of Regulation (EC) No 254/2002.

([620]) See Figure 15 (taken from the Annex of Regulation (EC) No 254/2002).

Area	Extra technical conditions
ICES Subareas IV and VI and ICES Divisions IIa and Vb, excluding that part of ICES Subarea VI enclosed by straight lines sequentially joining the following geographical coordinates: *[See Figure 102, area No 3]* 56° 00 N 07° 30 W 56° 00 N 04° 00 W 55° 00 N 04° 00 W 55° 00 N 07° 30 W 56° 00 N 07° 30 W	It shall be prohibited to retain on board or deploy any demersal towed net or nets of a mesh size of 100 mm to 119 mm unless ([621]): — each net is equipped with a square meshed panel of at least 90 mm, or — each net is lashed and stowed. It is prohibited to deploy any demersal towed net which incorporates ([622]): — any individual quadrilateral mesh of which the bars are not of approximately equal length; — a cod-end and any extension piece whose joint stretched length exceeds 36 m in nets of a mesh size of at least 70 mm; — a cod-end and any extension piece made of more than one sheet of netting material such that the linear dimensions of the top half or top sheet of said cod-end and extension piece are not equal to the linear dimensions of the bottom half or bottom sheet; — a cod-end, extension piece or square meshed panel, each of which is not constructed exclusively of only one type of netting material; — a cod-end attached by any means other than being sewn into that part of the net in front of the cod-end; — a cod-end and/or extension piece of mesh size of at least 55 mm that is not constructed of single-twine netting material of which no twine is thicker than 8 mm or of double-twine netting material of which no twine is thicker than 5 mm. With the exception of beam trawls, it is prohibited to deploy any demersal towed net ([623]): — of a mesh size of 70 mm to 89 mm, having more than 120 meshes in any circumference of the cod-end, excluding the joinings and selvedges; — of a mesh size greater than 90 mm, having more than 100 meshes in any circumference of the cod-end, excluding the joinings and selvedges; — of a mesh size of 70 mm to 99 mm, unless the upper half of the net consists of a panel of netting material attached directly to the headline or to no more than three rows of netting material of any mesh size attached directly to the headline, extending towards the posterior of the net for at least 15 meshes and made of diamond-meshed netting material of which no individual mesh is of less than 140 mm; — of a mesh size of 70 mm to 99 mm, unless a square-meshed panel of at least 80 mm is included in the net. The conditions laid down in the last two bullet points shall not apply when the catch retained on board and taken with a net or nets of a mesh size of 80 mm to 99 mm consist of: — at least 85 % of queen scallops; or — at least 40 % of sole and no more than 5 % of cod. It is prohibited to carry on board or deploy any beam trawl of a mesh size of at least 80 mm, unless the entire upper half of the front part of the net consists of a panel of netting material of which no individual mesh is less than 180 mm ([624]); this panel must be attached: — directly to the headline; or — to no more than three rows of netting material of any mesh size attached directly to the headline. The panel of netting shall extend towards the posterior of the net for at least the number of meshes determined by: — dividing the length in metres of the beam of the net by 12; — multiplying the result obtained by 5 400; — dividing this result (rounded down to the nearest whole number) by the mesh size in millimetres of the smallest mesh in the panel. It is prohibited to use any beam trawl of a mesh size of 32 mm to 119 mm within the following geographical areas ([625]): *[See Figure 103, area No 4]* — ICES Division IIa; — that part of ICES Subarea IV to the north of 56° 00 N; — ICES Division Vb; — ICES Subarea VI to the north of 56° 00 N. However, provided that the catches taken within the area below and retained on board consist of no more than 5 % cod, it is permitted to use any beam trawl of a mesh size of 100 mm to 119 mm within the area enclosed by the east coast of the United Kingdom between 55° 00 N and 56° 00 N and by straight lines sequentially joining the following geographical coordinates ([626]): *[See Figure 103, area No 5]* • a point on the east coast of the United Kingdom at 55° 00 N; • 55° 00 N 05° 00 E; • 56° 00 N 05° 00 E; • a point on the west coast of Denmark at 56° 00 N.

([621]) Article 4(5) of Commission Regulation (EC) No 2056/2001.

([622]) Article 5(1) of Commission Regulation (EC) No 2056/2001.

([623]) Article 5(2) of Commission Regulation (EC) No 2056/2001.

([624]) Article 5(3) of Commission Regulation (EC) No 2056/2001.

([625]) Article 6(1) of Commission Regulation (EC) No 2056/2001.

([626]) Article 6(2) of Commission Regulation (EC) No 2056/2001.

Area	Extra technical conditions
	Where marine organisms of a species subject to the landing obligation are caught in excess of permitted percentages ([627]); as specified, these unintended catches shall be landed and counted against quota ([628]).
ICES Subarea IV and Division IIa	It is prohibited to simultaneously carry on board beam trawls of more than two of the mesh size ranges of 32 mm to 99 mm, 100 mm to 119 mm and at least 120 mm ([629]). It is prohibited to deploy any demersal towed net of a mesh size of 70 mm to 79 mm ([630]).

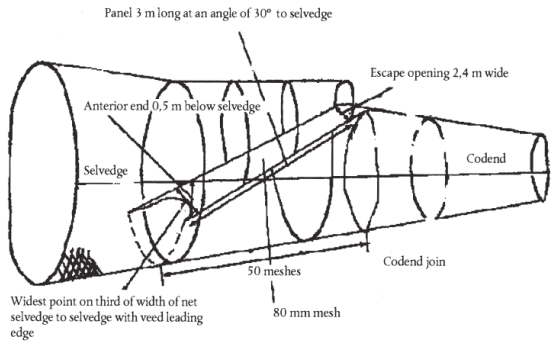


Figure 103 —*Technical schematic of a separator trawl* ([631])

Recovery plan for northern hake

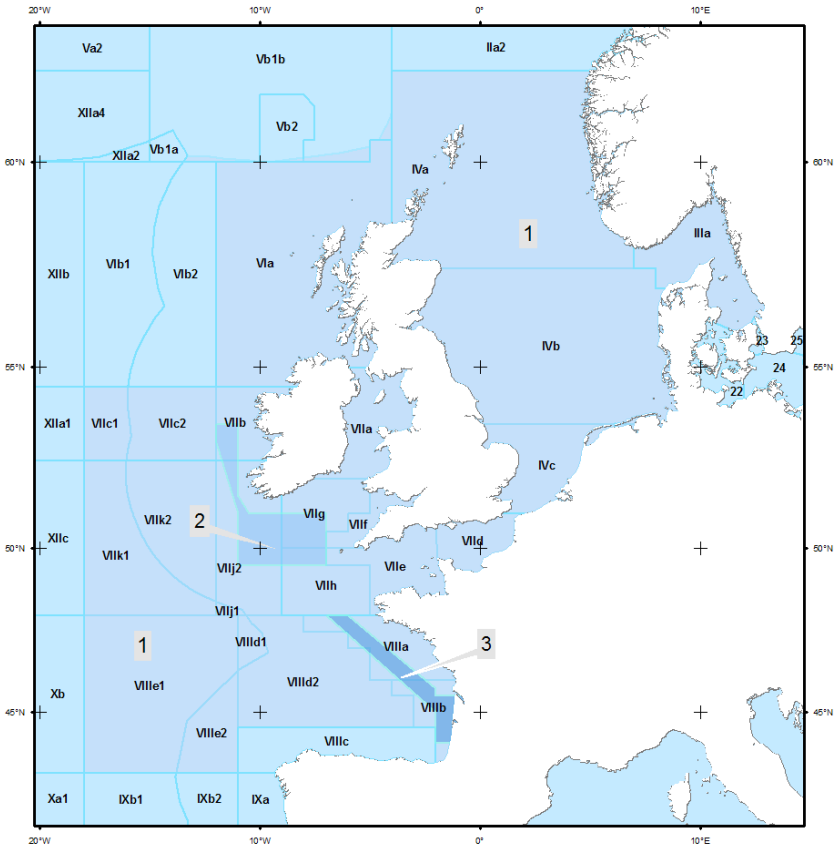


Figure 104 — *Areas subject to extra technical requirements for northern hake*

([627]) Articles 4(1), (6), 5(2), 6(2), 7 and 8 of Commission Regulation (EC) No 2056/2001.

([628]) Article 15 of Regulation (EU) No 1380/2013.

([629]) Article 6(3) of Commission Regulation (EC) No 2056/2001.

([630]) Article 8(1) of Commission Regulation (EC) No 2056/2001.

([631]) Annex to Regulation (EC) No 254/2002.

Table 3 — *Extra technical requirements for northern hake* ([632]):

Area	Extra technical conditions
ICES Subareas V and VI ICES Divisions VIIb, c, f, g, h, j and k ICES Divisions VIIIa, b, d and e. *[See Figure 104, area No 1]*	— It shall be prohibited to use, except in ICES Subareas V and VI, any cod-end and/or extension piece of any towed net, except beam trawls of a mesh size greater than 55 mm and is not constructed of single-twine netting material of which no twine is thicker than 6 mm or of double-twine netting material of which no twine is thicker than 4 mm; — any demersal towed net other than beam trawl incorporating a cod-end of a mesh size of 70 mm to 89 mm having more than 120 meshes in any circumference of the cod-end, excluding the joinings and selvedges; — any demersal towed net that includes any individual quadrilateral mesh of which the bars of the mesh are not of approximately equal length; — any demersal towed net to which a cod-end of a mesh size less than 100 mm is attached by any means other than by being sewn into the net. — It shall be prohibited to carry on board or deploy any beam trawl of a mesh size of at least 70 mm, unless the entire upper half of the front part of such a net consists of a panel of netting material of which no individual mesh is less than 180 mm ([633]). — This panel must be attached: • directly to the headline; or • to no more than three rows of netting material of any mesh size attached directly to the headline. — The panel of netting shall extend towards the posterior of the net for at least the number of meshes determined by: • dividing the length in metres of the beam of the net by 12; • multiplying the result obtained by 5 400; • dividing this result (rounded down to the nearest whole number) by the mesh size in millimetres of the smallest mesh in the panel.
The area enclosed by straight lines sequentially joining the following geographical coordinates and excluding any part of that area situated within the limit of 12 nautical miles calculated from the baselines of Ireland: *[See Figure 105, area No 2]* 53° 30 N, 11° 00 W 53° 30 N, 12° 00 W 53° 00 N, 12° 00 W 51° 00 N, 11° 00 W 49° 30 N, 11° 00 W 49° 30 N, 07° 00 W 51° 00 N, 07° 00 W 51° 00 N, 10° 30 W 51° 30N, 11° 00 W 53° 30 N, 11° 00 W	— It is prohibited to immerse, partially or wholly, or otherwise deploy for any purpose any towed net which is of a mesh size of 55 mm to 99 mm; all such towed nets shall be lashed and stowed. — It is prohibited to immerse, partially or wholly, or otherwise deploy for any purpose any fixed gear which is of a mesh size less than 120 mm; all such fixed gear shall be lashed and stowed ([634]). — Beam trawls of a mesh size of 55 mm to 99 mm may be deployed or immersed, partially or wholly, only in that part of the area to the east of 07° 30 W and only in the period of April to October ([635]).
The area enclosed by straight lines sequentially joining the following geographical coordinates and excluding any part of that area situated within the limit of 12 nautical miles calculated from the baselines of France: *[See Figure 104, area No 3]* 48° 00 N, 06° 00 W 48° 00 N, 07° 00 W 45° 00 N, 02° 00 W 44° 00 N, 02° 00 W A point on the coast of France at 44° 00 N A point on the coast of France at 45° 30 N 45° 30 N, 02° 00 W 45° 45 N, 02° 00 W 48° 00 N, 06° 00 W	— It is prohibited to immerse, partially or wholly, or otherwise deploy for any purpose any towed net which is of a mesh size of 55 mm to 99 mm; all such towed nets shall be lashed and stowed. — It is prohibited to immerse, partially or wholly, or otherwise deploy for any purpose any fixed gear which is of a mesh size less than 100 mm; all such fixed gear shall be lashed and stowed ([636]). — Beam trawls of a mesh size of 55 mm to 99 mm may be deployed or immersed, partially or wholly, only in that part of the area to the south of 46° 00 N and only in the period of June to September ([637]).

Multiannual plan for sole in the Western Channel

There are no additional technical requirements for sole in ICES Division VIIe.

Multiannual plan for plaice and sole in the North Sea

There are no additional technical requirements for plaice and sole in the North Sea.

([632]) Article 3 of Commission Regulation (EC) No 494/2002.

([633]) Article 4 of Commission Regulation (EC) No 494/2002.

([633]) Articles 5(1)(a) and 5(2) of Commission Regulation (EC) No 494/2002.

([634]) Article 6(1) of Commission Regulation (EC) No 494/2002.

([635]) Articles 5(1)(b) and 5(2) of Commission Regulation (EC) No 494/2002.

([636]) Article 6(2) of Commission Regulation (EC) No 494/2002.

Multiannual plan for herring in the west of Scotland

There are no additional technical requirements for herring in the west of Scotland.

Celtic Sea

Table 4 — *Extra technical requirements for the Celtic Sea* ([638]):

Area	Extra technical conditions
ICES Divisions VIIf, g and the part of j that lies north of latitude 50° N and east of 11° W (Celtic Sea)	When fishing in this area, the following definitions shall apply: — a TR1 vessel is a vessel using a bottom trawl or seine net with a mesh size of at least 100 mm; — a TR2 vessel is a vessel using a bottom trawl or seine net with a mesh size between 70 mm and 100 mm; — a low-power vessel is a vessel using a bottom trawl or seine net with an engine power of less than 112 kW; — the above definitions shall not apply to vessels using beam trawls. When fishing in the area, the following conditions shall apply ([639]): 1. By way of derogation from point (a) of Article 7(1) of Regulation (EC) No 850/98, fishing vessels using a cod-end mesh size of between 70 and 119 mm shall use a square-meshed panel of a mesh size of at least 120 millimetres 2. By way of derogation from point (a) of Article 7(2) of Regulation (EC) No 850/98, the square-meshed panel as referred to in paragraph 1 shall be placed into the top panel of the codend. The rearmost edge of the square-meshed panel, which is the part closest to the codline, shall be no more than 9 metres from the codline. 3. By way of derogation from paragraph 2, the square-meshed panel may be placed farther from the cod-end if a different combination of gear and device is assessed by the Scientific, Technical and Economic Committee for Fisheries (STECF) as having the same or higher selectivity characteristics for cod, haddock and whiting. 4. By way of derogation from paragraph 1, fishing vessels using a cod-end mesh size of between 70 and 119 mm may use, instead of a square-meshed panel of a mesh size of at least 120 millimetres, a gear or device assessed by the Scientific, Technical and Economic Committee for Fisheries (STECF) as having the same or higher selectivity characteristics for cod, haddock and whiting. 5. By way of derogation from paragraph 1, vessels using a cod-end mesh size of between 70 and 119 mm whose catch in any fishing trip in the area east of 8° West of the Celtic Sea comprises at least 55 % whiting may use a square-meshed panel of a mesh size of at least 100 millimetres if they deploy bottom trawls or seines of a single mesh size equal to or larger than 100 millimetres. 6. Fishing vessels making use of the derogations referred to in paragraphs 3, 4 and 5 must have been issued with a specific fishing authorisation by their flag Member State prior to going to sea. The flag Member State shall examine any submission for such authorisation in accordance with Article 7 of Council Regulation (EC) No 1224/2009 and with Articles 4 and 5 of Commission Implementing Regulation (EU) No 404/2011

Region 3

Recovery of southern hake and Norway lobster in the Cantabrian Sea and western Iberian peninsula

See Chapter 4.2.6.

Multiannual plan for sole in the Bay of Biscay

There are no additional technical requirements for sole in the Bay of Biscay.

The eastern Atlantic and the Mediterranean Sea

Multiannual recovery plan for bluefin tuna in the eastern Atlantic and the Mediterranean Sea

Table 5 — *Extra technical requirements for bluefin tuna in the eastern Atlantic and the Mediterranean Sea*

Area	Extra technical conditions
The eastern Atlantic Ocean and the Mediterranean Sea	Fishing for bluefin tuna shall be permitted during the periods ([640]): — 1 January to 31 May by pelagic longlines with vessels a length overall of greater than 24 m, with the exception of the area delimited by west of 10° W and north of 42° N and the Norwegian EEZ, where such fishing shall be permitted from 1 August to 31 January. — 26 May to 24 June, 25 June to 31 October in the Norwegian EEZ, by purse seine; — 1 July to 31 October within a 4 month fishing season by bait boats and trolling boats; — 16 June to 14 October by pelagic trawl (eastern Atlantic only); — 16 June to 14 October by recreational and sport fishing vessels.

([638]) Regulation (EU) No 737/2012.

([639]) Article 2 of Commission Implementing Regulation (EU) No 737/2012.

([640]) Articles 11 and 12 of Regulation (EU) No 2016/1627.

APPENDIX 1: Bibliography

None

APPENDIX 2: Links and references

None

APPENDIX 3: Legislation

- Commission Regulation (EEC) No 3440/84 of 6 December 1984 on the attachment of devices to trawls, Danish seines and similar nets.
- Council Regulation (EC) No 850/98 of 30 March 1998 for the conservation of fishery resources through technical measures for the protection of juveniles of marine organisms.
- Commission Regulation (EC) No 2056/2001 of 19 October 2001 establishing additional technical measures for the recovery of the stocks of cod in the North Sea and to the west of Scotland.
- Commission Regulation (EC) No 494/2002 of 19 March 2002 establishing additional technical measures for the recovery of the stock of hake in ICES Subareas III, IV, V, VI and VII and ICES Divisions VIII a, b, d and e.
- Council Regulation (EC) No 812/2004 of 26 April 2004 laying down measures concerning incidental catches of cetaceans in fisheries and amending Regulation (EC) No 88/98.
- Council Regulation (EC) No 2166/2005 of 20 December 2005 establishing measures for the recovery of the southern hake and Norway lobster stocks in the Cantabrian Sea and western Iberian peninsula and amending Regulation (EC) No 850/98 for the conservation of fishery resources through technical measures for the protection of juveniles of marine organisms.
- Council Regulation (EC) No 2187/2005 of 21 December 2005 for the conservation of fishery resources through technical measures in the Baltic Sea, the Belts and the Sound, amending Regulation (EC) No 1434/98 and repealing Regulation (EC) No 88/98.
- Council Regulation (EC) No 1967/2006 of 21 December 2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea, amending Regulation (EEC) No 2847/93 and repealing Regulation (EC) No 1626/94.
- Commission Regulation (EC) No 517/2008 of 10 June 2008 laying down detailed rules for the implementation of Council Regulation (EC) No 850/98 as regards the determination of the mesh size and assessing the thickness of twine of fishing nets.
- Council Regulation (EC) No 1224/2009 of 20 November 2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy, amending Regulations (EC) No 847/96, (EC) No 2371/2002, (EC) No 811/2004, (EC) No 768/2005, (EC) No 2115/2005, (EC) No 2166/2005, (EC) No 388/2006, (EC) No 509/2007, (EC) No 676/2007, (EC) No 1098/2007, (EC) No 1300/2008, (EC) No 1342/2008 and repealing Regulations (EEC) No 2847/93, (EC) No 1627/94 and (EC) No 1966/2006.
- Commission Regulation (EU) No 686/2010 of 28 July 2010 amending Council Regulation (EC) No 2187/2005 as regards specifications of Bacoma window and T90 trawl in fisheries carried out in the Baltic Sea, the Belts and the Sound.

- Commission Implementing Regulation (EU) No 404/2011 of 8 April 2011 laying down detailed rules for the implementation of Council Regulation (EC) No 1224/2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy.
- Regulation (EU) No 1343/2011 of the European Parliament and of the Council of 13 December 2011 on certain provisions for fishing in the GFCM (General Fisheries Commission for the Mediterranean) agreement area and amending Council Regulation (EC) No 1967/2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea.
- Commission Implementing Regulation (EU) No 737/2012 of 14 August 2012 on the protection of certain stocks in the Celtic Sea.
- Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the common fisheries policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC.
- Regulation (EU) 2015/812 of the European Parliament and of the Council of 20 May 2015 amending Council Regulations (EC) No 850/98, (EC) No 2187/2005, (EC) No 1967/2006, (EC) No 1098/2007, (EC) No 254/2002, (EC) No 2347/2002 and (EC) No 1224/2009, and Regulations (EU) No 1379/2013 and (EU) No 1380/2013 of the European Parliament and of the Council, as regards the landing obligation, and repealing Council Regulation (EC) No 1434/98.
- Regulation (EU) 2016/1139 of the European Parliament and of the Council of 6 July 2016 establishing a multiannual plan for the stocks of cod, herring and sprat in the Baltic Sea and the fisheries exploiting those stocks, amending Council Regulation (EC) No 2187/2005 and repealing Council Regulation (EC) No 1098/2007.
- Regulation (EU) 2016/1627 of the European Parliament and of the Council of 14 September 2016 on a multiannual recovery plan for bluefin tuna in the eastern Atlantic and the Mediterranean, and repealing Council Regulation (EC) No 302/2009
- United Nations Convention on the Law of the Sea.

Annex 1

Fishing gear description ([641])	Code
Trawl nets	
Bottom otter trawl	OTB
Nephrops trawl	TBN
Shrimp trawl	TBS
Bottom trawl (not specified)	TB
Beam trawl	TBB
Otter twin trawl	OTT
Bottom pair trawl	PTB
Midwater otter trawl	OTM
Midwater pair trawl	PTM
Seines	
Danish anchor seine	SDN
Scottish seine (fly dragging)	SSC
Scottish pair seine (fly dragging)	SPR
Seine nets (not specified)	SX
Boat or vessel seine	SV
Surrounding nets	
Surrounding net with purse line (purse seine)	PS
One boat operated purse seine	PS1
Two boats operated purse seine	PS2
Surrounding net without purse line (lampara)	LA
Dredges	
Boat dredges	DRB
Gillnets and entangling nets	
Gillnets (not specified)	GN
Gillnets anchored (set)	GNS
Gillnets (drift)	GND
Gillnets (circling)	GNC
Combined gillnets — trammel nets	GTN
Trammel nets	GTR
Traps	
Pots	FPO
Traps (not specified)	FIX
Hooks and lines	
Hand lines and pole lines (hand operated)	LHP
Hand lines and pole lines (mechanised)	LHM
Set longlines	LLS
Drifting longlines	LLD
Longlines (not specified)	LL
Trolling lines	LTL
Hooks and lines (not specified)	LX
Harvesting machines	
Mechanised dredges	HMD
Miscellaneous gear	MIS
Recreational gear	RG
Gear not known or not specified	NK

([641]) Annex IX of Commission Implementing Regulation (EU) 404/2011.

Section 5.2 Check conformity with the landing obligation and discard plans

Coverage: all EU areas and all EU vessels

Objective

This section aims to give the trainee an understanding of relevant conservation measures ([642]) adopted for the purpose of achieving the objectives of the CFP ([643]), in particular the landing obligation and discard plans.

Overview

Conservation measures are adopted by the Union ([644]) for the purpose of achieving the objectives of the CFP in respect of the conservation and sustainable exploitation of marine biological resources. Such measures include the landing obligation and discard plans.

The objective of these measures is to reduce unwanted catches and gradually eliminate discards. Unwanted catches and discards are wasteful and have a negative effect on the sustainable exploitation of marine biological resources and the marine ecosystem and adversely affect the financial viability of fisheries.

The rules of the CFP include a phased approach to implement the obligation to land all catches of stocks subject to catch limits (and minimum sizes in the Mediterranean) taken during fishing activities in Union waters or by Union fishing vessels.

It is therefore important that inspectors are aware of the control provisions associated with the landing obligation and the possible exemptions in the associated discard plans.

Entry requirements

The trainee should have a good working understanding of the CFP and be familiar with the general concepts of control, inspection and enforcement.

([642]) Articles 6 to 20 of Regulation (EU) No 1380/2013.

([643]) Article 2 of Regulation (EU) No 1380/2015.

([644]) Article 6(1) of Regulation (EU) No 1380/2015.

Chapter 5.2.1 — Verify compliance with the landing obligation

Part A Introduction

Before the latest reform of the CFP, the general approach to discards was to prohibit the landing of catch that did not match certain prescribed catch compositions, legal minimum landing sizes or TACs. Catch which could not legally be landed had to therefore be discarded.

The reformed CFP represents a fundamental shift in fisheries management by switching the focus from the regulation of landings to the regulation of total catches. In the fisheries under the landing obligation, all catches of all species (regardless of whether they are pelagic or demersal) that are subject to catch limits and to minimum sizes in the Mediterranean catches subject must be landed.

Part B Concepts and definitions

(a) **Catch limits ([645])**

'Catch limits' refers to a quantitative limit on catches of a fish stock (or a group of fish stocks) over a given period where such fish stocks (or group of fish stocks) are subject to an obligation to land.

(b) **Landing obligation**

'Landing obligation' refers to the obligation to land all catches of species that are subject to catch limits and to minimum sizes in the Mediterranean Sea. Quantities of species subject to the landing obligation below the applicable MCRS retained on board shall be stowed separately in fish rooms ([646]) and are excluded for sale for direct human consumption ([647]).

Part C Data and information sources

ERS

Paper logbooks

Prior notification messages (if the master has transmitted the message before the time the inspection takes place at sea)

Part D Methodology

NB: The CFP basic regulation lays down the general rules for the species subject to the landing obligation in the different areas concerned. The implementation of the landing obligation is further detailed in the different discard plans adopted through delegated acts. These plans specify the different fisheries and species subject to the landing obligation established for a period of 3 years. Detailed explanations are provided in Chapter 5.2.2.

It is good practice for inspectors to carefully observe the activity and characteristics of the fishing vessel prior to the inspection as this provides valuable information regarding the likely target species and stowage methods employed on that individual vessel.

Implementation — Scope ([648])

For inspectors, it is important to identify the species subject to the landing obligation as it is implemented on a fishery basis according to a phased approach, as follows.

([645]) Article 4(15) of Regulation (EU) No 1380/2013.

([646]) Article 49a of Regulation (EC) No 1224/2009.

([647]) Article 15(11) of Regulation (EU) No 1380/2013.

([648]) Article 15 of Regulation (EU) No 1380/2013.

All regions

- Small pelagic fisheries: i.e. mackerel, herring, horse mackerel, blue whiting, boarfish, anchovy, argentine, sardine and sprat.
- Large pelagic fisheries: i.e. bluefin tuna, swordfish, albacore tuna, bigeye tuna and blue and white marlin.
- Fisheries for industrial purposes: i.e. capelin, sand eel and Norway pout.
- From 1 January 2019 for all species in all other Union waters and in non-Union waters not subject to third countries' sovereignty or jurisdiction.

Baltic Sea

- All species subject to catch limits

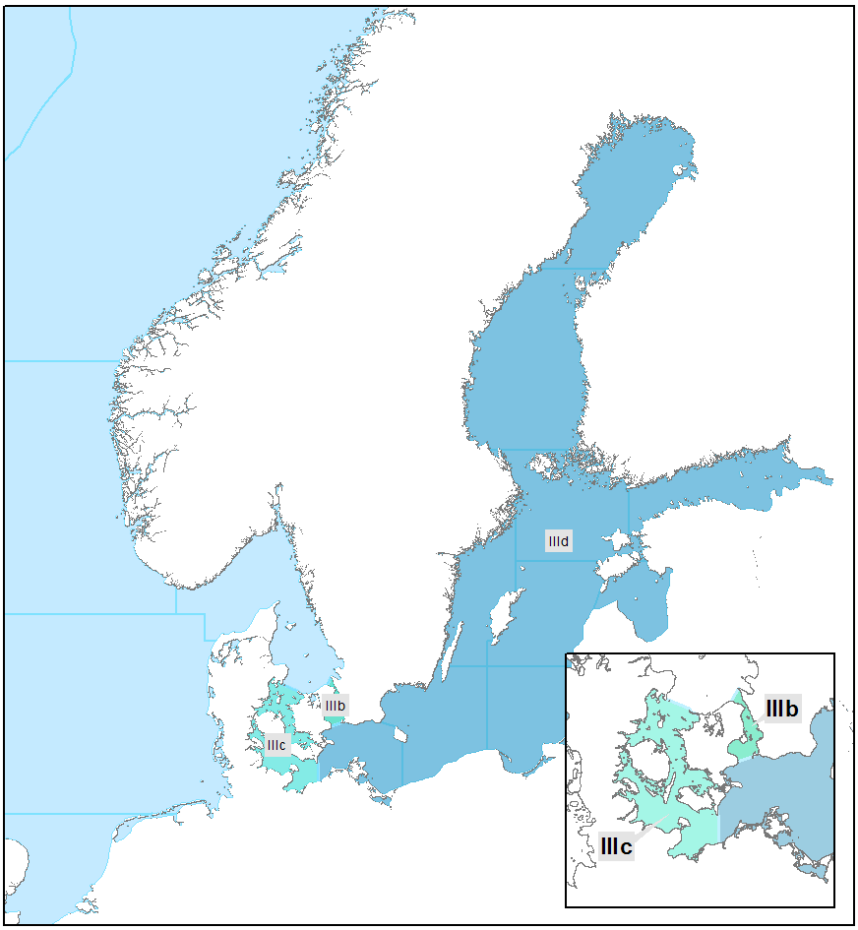


Figure 105 — *Baltic Sea areas*

Region 2

North Sea

- Fisheries for cod, haddock, whiting, saithe, Norway lobster, common sole, plaice, hake and northern prawn

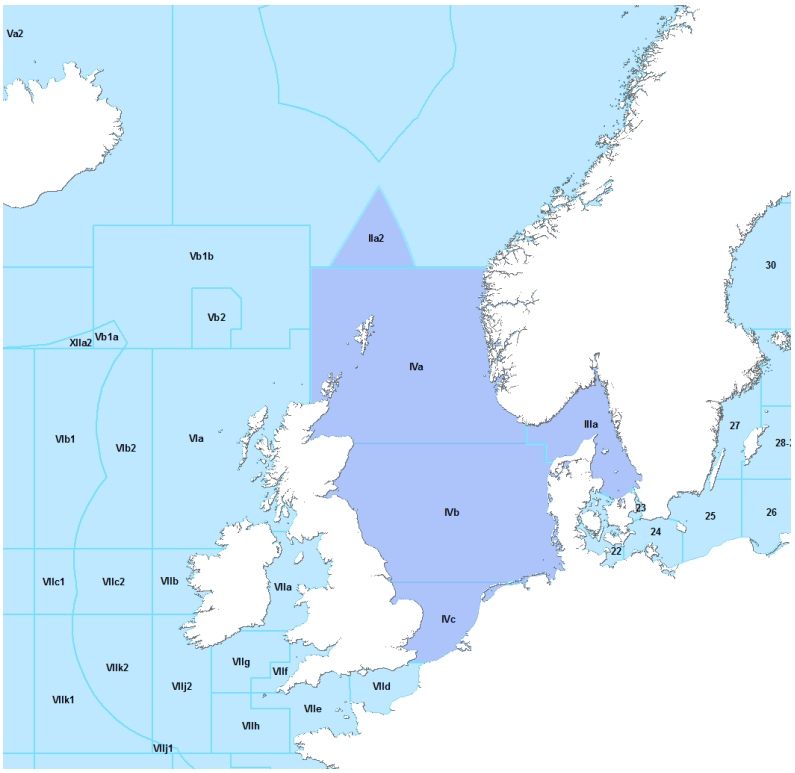


Figure 106 — *North Sea areas*

North-western waters

- Fisheries for cod, haddock, whiting, saithe, Norway lobster, common sole, plaice and hake

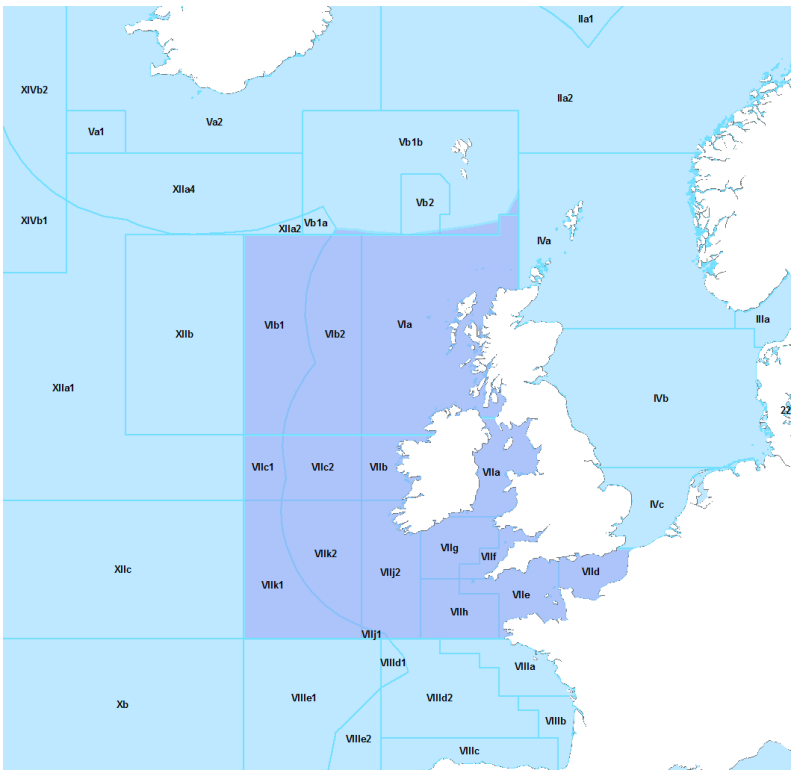


Figure 107 — *North-western waters areas*

Region 3

South-western waters

- For all fisheries for species subject to catch limits and pending discard plans and fisheries for Norway lobster, common sole, place and hake

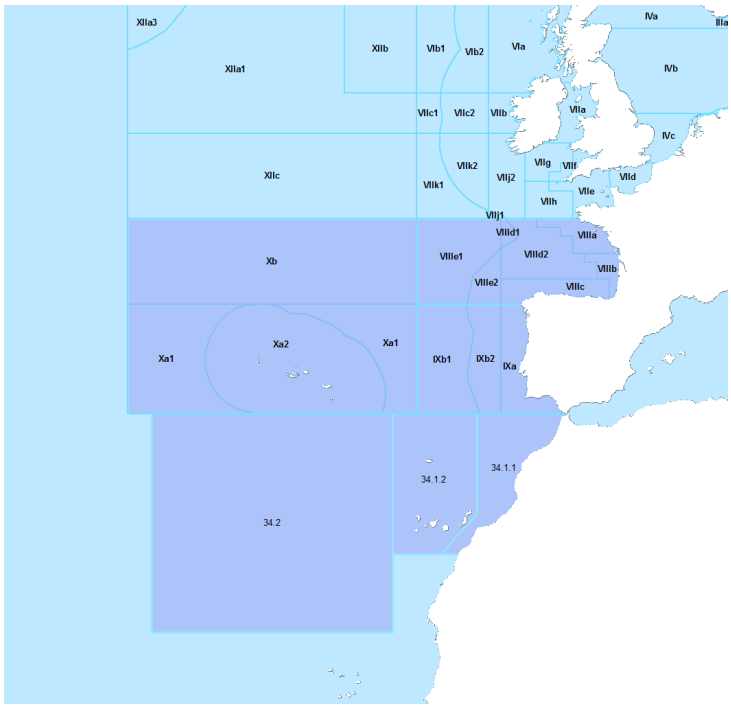


Figure 108 — *South-western waters areas*

Mediterranean Sea

- All species which define the fisheries

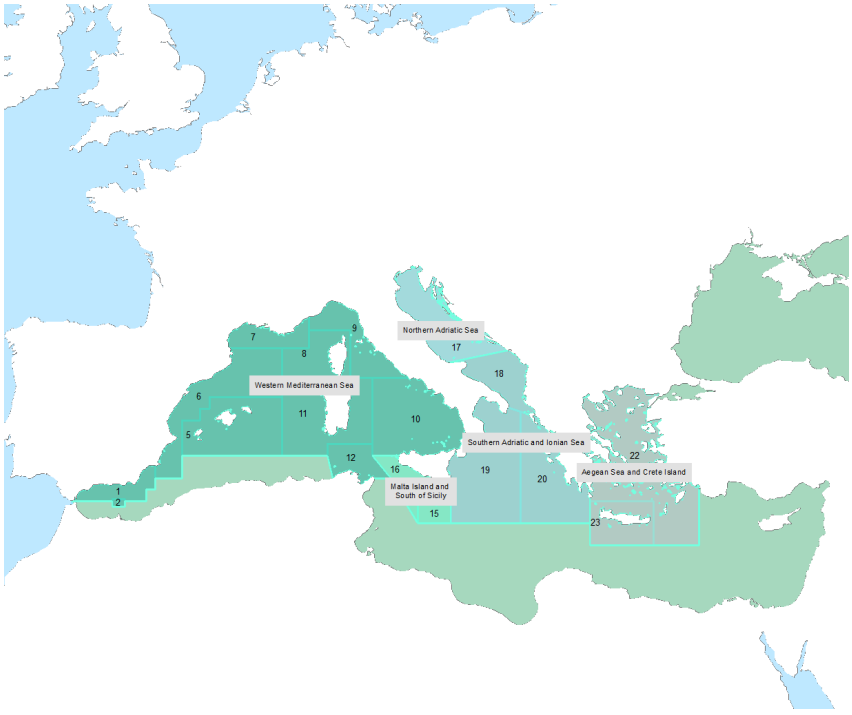


Figure 109 — *Mediterranean Sea areas*

(c) **Verification of declarations**

If the master has transmitted the prior notification message, then inspectors should take note of the information contained in it regarding the quantities of species subject to the landing obligation on board and to be landed.

Inspectors should verify that the quantities of species subject to the landing obligation retained on board agree with the quantities recorded in the logbook.

Inspectors should verify that quantities of species subject to the landing obligation which are discarded under a *de minimis* exemption are recorded in the logbook ([649]).

Inspectors should verify that quantities of species subject to the landing obligation retained on board and are below the applicable MCRS are, where appropriate, stowed separately in the fish room.

(d) **Monitoring and control**

The CFP basic regulation envisages that specific monitoring and control measures are taken to help ensure compliance with the landing obligation, e.g. observers, closed-circuit television (CCTV) and other tools such as the last haul monitoring.

- Control observers ([650])

Inspectors may use information provided by observer programmes which place observers on a defined percentage of fishing trips conducted by fishing vessels. Observers are able to closely monitor fishing activities, including accurate identification of catches that are brought on board and wider fishing practices.

- Catch composition comparison based on a reference fleet

An approach to supplement monitoring and control efforts is to use catch composition comparisons based on catches made by a specifically established reference fleet. The detailed findings of reference vessels involved in at-sea monitoring (in the form of either on-board observers or remote electronic monitoring (REM) and land-based sampling) can be used to validate another vessel's (in the same fleet segment) self-documentation of catches and discards (using logbooks). Where appropriate and beneficial, at-sea observations from a reference fleet may also be used to collect relevant scientific evidence relating to fisheries assessment, gear selectivity and species survivability. The data from such fleets can significantly contribute to research, management and control efforts.

- Remote electronic monitoring

REM is increasingly being developed as a component of a fully documented fisheries (FDF) programme. FDF entails detailed recording of activities by the master, together with e-monitoring, and supported when needed by complementary monitoring and control approaches, including VMS, on-board observers and inspection patrols.

The e-monitoring system entails the recording of fishing vessel activities through a system of sensors on fishing machinery and CCTV cameras which record footage of fish catching and processing. The data and imagery are then reviewed onshore by compliance analysts. The monitoring systems are able to record the entire fishing trip, almost every fishing operation, catches and catch handling procedures, species, fish size and retention of all catch on board. In retrospect, the whole fishing trip can be recreated through CCTV footage, GPS and sensor data and may be audited at any time by inspectors.

- Last haul monitoring

Inspectors should be aware that a sensible way to proceed with regard to the landing obligation is to take an observed haul while inspecting at sea. This is where inspectors observe the haul and note all the fish caught with the following recommended criteria.

- Fish to be discarded and below MCRS (BMS) should be kept separate for estimation by inspectors.

([649]) Article 15(5)(c) of Regulation (EU) No 1380/2013.

([650]) Article 73 of Regulation (EC) No1224/2009.

- Estimates in kg for all species should be noted down.
- A procedure to take a sufficiently large sample to enable an accurate estimation of the observed haul should be followed.
- Any additional information that is relevant to the estimation may be provided as remarks to the data collection form.
- Data collection: a specific data-recording form should be available for performing this check in each specific area.
- Where possible, observe the entire fish-sorting procedure.
- If large catches prevent this, take a sufficiently large sample that is representative of the catch composition of the haul.
- Record:
  - » quantities of catch retained;
  - » quantities of fish discarded (specifying *de minimis* and other types of exemptions);
  - » quantities of fish BMS.

Once these data have been gathered it is recommended that the data are centralised and can be used for comparison/risk assessment purposes. The EFCA is currently running a project where these data are gathered and used in such a manner through the JDP process.

Figure 110 — *Example of inspection data on the estimated levels of catch composition and fish discarded to be transmitted daily by the inspecting Member States* ([651])

Baltic Sea — Last haul data from inspection		
Fishing vessel data		
Flag state	***DNK***	
External marking	O39	
Inspection data		
Date	***01022016***	
Time and duration	**KL. 08.50 2 TIMER**	
Position (Lat/Lon)	**55 24 77 N 010 56 53 Ø**	
ICES area and square (e.g. 3c22-39G0)	**39G0 3C**	
Gear		
Type (e.g. OTB, DNS, LL)	OTB90	
Mesh size	90	
Escape panel type (trawl only)		
Catch composition *(last observed haul only)*		
Species	***Catches***	
HER (live weight in *kg*)		
SPR (live weight in kg)		
	Above MCRS	***Below MCRS***
COD (live weight in kg)	***44***	***0,750***
SAL (individuals)		
	Retained	***Discarded***
PLE (live weight in *kg*)	40	400
TRS (live weight in *kg*)		
OTH (live weight in *kg*, specify species)	FLE 100	FLE 350
DAB 10		
SOL 25		
Remarks (comments about size distribution, reason for discards, etc.)		

([651]) Based on the EFCA format as agreed by the Member States.

Chapter 5.2.2 — Verify compliance with discard plans

Part A Introduction

The exemptions under the landing obligation are subject to conditions which inspectors should be able to verify.

Part B Concepts and definitions

(a) Discards ([652])

'Discards' means catches that are returned to the sea.

(b) Unintended catches ([653])

'Unintended catches' means incidental catches of marine organisms which must be landed and counted against quotas either because they are below the applicable MCRS or because they exceed the quantities permitted under the catch composition and by-catch rules.

(c) Protected species ([654])

'Protected species' are species which are endangered, vulnerable, rare, endemic and require particular attention by reason of the specific nature of their habitat and/or the potential impact of their exploitation. The deliberate catching, retention, on-board transhipment or landing is prohibited except when derogation has been granted to secure assistance for the recovery of this species and the national authorities are informed. Incidental catches of prohibited species (e.g. basking shark) cannot be retained on board and shall be discarded.

(d) Discard plans ([655])

Where no multiannual plan or no management plan is adopted for the fishery in question, the Commission shall be empowered to adopt delegated acts agreed by the Member States having a direct management interest in a particular fishery, laying down a specific 'discard plan' on a temporary basis and for a period of no more than 3 years, containing:

- specific provisions regarding fisheries or species to avoid creating discards;
- species for which scientific evidence demonstrates high survival rates, taking into account the characteristics of the gear, of the fishing practices and of the ecosystem;
- provisions for *de minimis* exemptions:
  - » where scientific evidence indicates that increases in selectivity are very difficult to achieve, or
  - » to avoid disproportionate costs of handling unwanted catches for those fishing gears where unwanted catches per fishing gear do not represent more than a certain percentage of total annual catch of that gear, to be established in a plan.

Part C Data and information sources

ERS

Logbooks

([652]) Article 4(10) of Regulation (EU) No 1380/2013.

([653]) Article 3 of Regulation (EC) No 850/98.

([654]) Article 1 and Annex IV to Directive 92/43/EEC.

([655]) Article 15(5) of Regulation (EU) No1380/2013.

Part D Methodology

(a) General principles

With discard plans, it is important to establish which segment of the fleet the plans, and hence the obligations, apply to. This is done by checking the annex where the fisheries subject to the provisions of the regulation implementing the landing obligation are defined. In this annex, the fishing area, gear and quota species targeted shall indicate which segment of the fleet the landing obligation applies to. In some cases it may be complicated, for example where phased implementation is occurring or in other cases, where the landing obligation may not apply to a given gear in a certain area.

Exemptions to the landing obligation may be adopted through EU law (in multiannual plans). In the absence of a multiannual plan, such exemptions may be adopted through discard plans. Such plans may specify additional technical conditions under which species subject to the landing obligation may be discarded.

- Species with high survivability

Species which legally are not permitted to be kept on board but which have a high survival rate when released back into the sea.

- Fish that have been damaged by predators

Fish which have been damaged by predators, such as fish-eating marine mammals, predatory fish or birds, can constitute a risk to humans, pets and other fish by virtue of pathogens and bacteria which might be transmitted by such predators. Consequently, the landing obligation should not apply to catches of these damaged fish, which should immediately be disposed of at sea.

- Catches under the *de minimis* exemption

When it is not possible to enhance the selectivity of species through additional technical measures or to avoid disproportionate costs of handling unwanted catches, such as storing, labour or icing, an exemption might be granted in the discard plan up to a certain percentage of the annual catch.

These discards are not counted against quota but must be documented in the logbook.

(b) Discard plans

Baltic Sea

Discard plans for the Baltic Sea ([656])

The landing obligation applies to species subject to catch limits caught in small pelagic fisheries, namely herring and sprat, and in fisheries for industrial purposes in the Baltic Sea. It applies to salmon and cod and to plaice.

Inspectors should note that the landing obligation does not apply to catches of cod and salmon caught with trap nets, creel/pots, fyke nets and pound nets, where all cod and salmon may be discarded.

Inspectors should check the MCRS for cod landed.

Inspectors should check that the quantities of cod retained on board below the MCRS fixed by the discard plan are recorded as a separate entry in the logbook ([657]), and for vessels with a length overall of at least 12 m have stowed such quantities separately ([658]).

Inspectors should ensure that masters of fishing vessels shall record quantities of cod and salmon discarded in the fishing logbook. In the case of salmon, the number of discarded fish shall be recorded ([659]). Inspectors should check the fishing logbooks for details on discards.

Discard plans fix an MCRS for cod of 35 cm, against the previous size of 38 cm.

([656]) Commission Delegated Regulation (EU) No 1396/2014.

([657]) Article 14(2)(f) of Regulation (EC) No 1224/2009.

([658]) Article 49(a) of Regulation (EC) No 1224/2009.

([659]) Article 14(2)(f) of Regulation (EC) No 1224/2009.

Region 2

Discard plan for certain small pelagic fisheries and fisheries for industrial purposes in the North Sea ([660])

The discard plan applies to all vessels engaged in small pelagic fisheries and fisheries for industrial purposes, for 3 years from 1 January 2015 and in relation to species caught in those fisheries.

Inspectors should note that the landing obligation applies to all vessels engaged in small pelagic fisheries and fisheries for industrial purposes in the North Sea. The pelagic species concerned are certain fisheries for mackerel, herring, horse mackerel, blue whiting, greater silver smelt and sprat, as well as the industrial fisheries for Norway pout, sprat and sand eel.

Inspectors should note that there are survivability exemptions ([661]) for herring and mackerel in the purse seine fisheries if the following conditions are met:

- the catch is released where the point of retrieval is 80 % of the closure of the net for mackerel fisheries and 90 % for herring fisheries;
- furthermore, the purse seine must be fitted with visible buoys clearly marking the point of retrieval;
- the catch must also be sampled prior to release and the results of the sampling must be recorded in the logbook;
- the vessel must also have an electronic recording and documenting system ([662]).

For pelagic trawlers up to 25 m long using midwater trawl (OTM) in the pelagic fishery in ICES Areas IV(b) and IV(c) south of 54˚N, up to a maximum of 2 % for 2016 of the total annual catches of mackerel, horse mackerel, herring and whiting may be discarded. Inspectors should verify that the master correctly recorded the quantities of such species discarded at sea in the fishing logbook. Whilst such catches will not be counted against quota, they must be fully recorded ([663]).

Discard plan for certain demersal fisheries in the North Sea ([664])

The discard plan applies to all vessels engaged in the demersal fisheries in the North Sea, the Skagerrak and the Union waters of ICES Division IIa, from 1 January 2017 until 31 December 2018 and in relation to species caught in those fisheries.

Inspectors should note that the landing obligation applies to all vessels engaged in demersal fisheries in the North Sea. The demersal species concerned are certain fisheries for saithe, plaice, haddock, northern prawn, common sole and hake.

Inspectors should note that there are survivability exemptions for Norway lobster and common sole, which shall be released immediately for incidental catches:

Norway lobster

- with pots (FPO);
- in ICES Division IIIa with bottom trawls (OTB and TBN) with a mesh size of at least 70 mm equipped with a species-selective grid with bar spacing of maximum 35 mm;
- in ICES Division IIIa with bottom trawls (OTB and TBN) with a mesh size of at least 90 mm equipped with a top panel (Seltra panel) of at least 270 mm (diamond mesh) or at least 140 mm (square mesh);
- in ICES Division IV with bottom trawls with a mesh of at least 80 equipped with a 4 panel section (netgrid) with an inclined sheet of diamond mesh netting of mesh size of at least 200mm leading to an escape panel in the top of the net.

([660]) Commission Delegated Regulation (EU) No 1395/2014.

([661]) Article 2 of Commission Delegated Regulation (EU) No 1395/2014.

([662]) Article 15(5)(c) of Regulation (EU) No 1380/2015.

([663]) Article 15(5)(c) of Regulation (EU) No 1380/2015.

([664]) Commission Delegated Regulation (EU) 2016/2250.

The MCRS of Norway lobster in ICES Division IIIa shall be as follows: a total length of 105 mm, tail length of 59 mm or a carapace length of 32 mm.

Common sole

There are also survivability exemptions for common sole below the MCRS in 2017 in certain inshore trawl fisheries in ICES area IVc.

By way of derogation to the landing obligation, the following quantities may be discarded under the *de minimis* exemption:

(a) For common sole up to 3% of total annual catches by vessels using trammel or gill nets.

(b) For common sole below the MCRS up to 7% in 2017 and 6% in 2018 of the total annual catch by vessels using certain categories of beam trawl.

(c) For Norway lobster below the MCRS up to 6% of the total annual catch by vessels using certain categories of bottom trawl.

(d) In 2017 for common sole and haddock combined below the MCRS up to 2% of the total annual catch of Norway lobster, common sole, haddock and Northern prawn in the fishery for Norway lobster by vessels using certain categories of bottom trawl equipped with a species selective grid in ICES Division IIIa. The percentage increases to 4% in 2018 and includes whiting.

(e) For common sole haddock and whiting combined below the MCRS up to 1% of the total annual catch of Norway lobster, common sole, haddock whiting and Northern prawn in the fishery for Northern prawn by vessels using certain categories of bottom trawl equipped with a species selective grid in ICES Division IIIa.

(f) For common sole haddock and whiting combined below the MCRS up to 0.5% of the total annual catch of Norway lobster, common sole, haddock whiting and Northern prawn in the fishery for Northern prawn by vessels using creels (FPO) in ICES Division IIIa.

(g) In 2018 for whiting up to 7% of the total annual catch of Norway lobster, common sole, haddock whiting saithe and cod and Northern prawn in the mixed fishery for sole, whiting and other species by vessels using certain categories of bottom trawl in ICES Division IIVc.

In the Skagerrak, the use of trawls, Danish seines, beam trawls or similar towed net having a mesh size of less than 120 mm shall be prohibited, except for:

- trawls with at least 90 mm cod-end, provided they are equipped with:
  - » a panel of at least 3 m positioned no more than 4 m from the cod line and which covers the full width of the top sheet of the trawl (i.e. from selvedge to selvedge),
  - » a square mesh panel of at least 140 mm,
  - » a diamond mesh panel of at least 270 mm placed in a four-panel section and mounted with a joining ration of three meshes of 90 mm to one mesh of 270 mm,
  - » a sorting grid with no more than 35 mm in bar spacing;

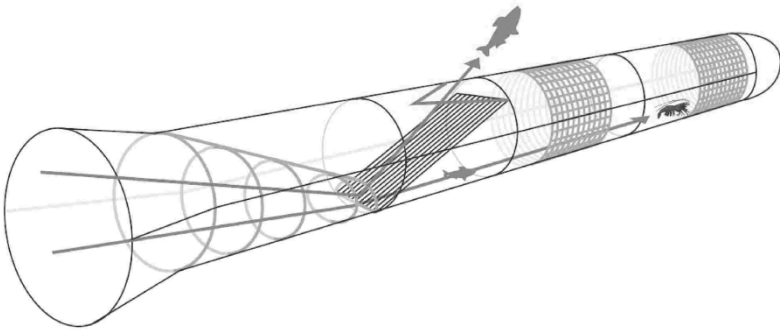


Figure 111 — *Sorting grid*

- trawls with at least 70 mm square mesh cod-end equipped with a sorting grid with no more than 35 mm bar spacing;
- trawls with minimum mesh sizes of less than 70 mm when fishing for pelagic or industrial species, provided the catch contains more than 80 % of one or more pelagic or industrial species;
- trawls with at least 35 mm cod-end when fishing for Pandalus, provided the trawl is equipped with a sorting grid with a maximum bar spacing of 19 mm.

In the Skagerrak a fish-retention device may be used when fishing for *Pandalus*, provided there are adequate fishing opportunities to cover by-catch and that the retention device is constructed with a top panel of a minimum mesh size of 120 mm of square mesh, at least 3 m and at least as wide as the width of the sorting grid.

Member States shall determine which vessels are subject to the landing obligation for each particular fishery.

Discard plan for certain pelagic fisheries in north-western waters ([665])

The discard plan applies to all vessels engaged in small and large pelagic fisheries, for 3 years from 1 January 2015 and in relation to species caught in those fisheries.

Inspectors should note that the landing obligation applies to all vessels prosecuting the small and large pelagic fisheries for species subject to catch limits, namely mackerel, herring, horse mackerel, blue whiting, boarfish, greater silver smelt, albacore tuna and sprat in ICES Areas V(b), VI and VII.

There are survivability exemptions for herring and mackerel in the purse seine fisheries in Area VI if the following conditions are met:

- the catch is released where the point of retrieval is 80 % of the closure of the net for mackerel fisheries, 90 % for herring fisheries and 80 % for a mixture of both species;
- the purse seine must be fitted with visible buoys clearly marking the limit of the point of retrieval;
- the catch must be sampled prior to release and the results of the sampling must be recorded in the logbook;
- the vessel must also have an electronic recording and documenting system.

Under the *de minimis* exemption, in the blue whiting industrial pelagic trawl fishery in ICES Areas V(b), VI and VII, where vessels are processing the catch into surimi paste, inspectors should verify that the master has fully recorded the quantities of such species discarded at sea in the fishing logbook and, where possible, has carried out a cross-check against the production log.

([665]) Commission Delegated Regulation (EU) No 1393/2014.

([666]) Article 15(5)(c) of Regulation (EU) No 1380/2015.

([667]) Article 4 of Commission Delegated Regulation (EU) No 1393/2014.

([668]) Article 15(5) of Regulation (EU) No 1380/2013.

([669]) Article 4 of Commission Delegated Regulation (EU) No 1393/2014.

([670]) Commission Delegated Regulation (EU) No 2016/2375.

Inspectors should endeavour to determine the quantities of blue whiting needed to produce the volume of surimi on board. There is no conversion factor laid down in Union law for this calculation, and it may be necessary to ask the master or the factory manager for the appropriate conversion factor.

Under the *de minimis* exemption in the midwater pair trawl fisheries for albacore tuna in ICES VII, inspectors should verify that the master has fully recorded the quantities of such species discarded in the fishing logbook ([666]).

In the pelagic trawl fishery targeting herring, mackerel and horse mackerel in ICES Area VII(d) involving pelagic OTM up to 25 m long, inspectors should verify that the master has fully recorded the quantities of such discarded species, including whiting, in the fishing logbook ([667]).

In the horse mackerel fishery targeted by freezer trawlers using OTM in ICES VI and VII and which take a by-catch of boarfish, inspectors should verify that the master has recorded the quantities of such discarded species in the fishing logbook.

There are additional requirements regarding the recording of catches released under the *de minimis* exemption ([668]) and the results of sampling required when catches are slipped in the PS fisheries. The results of sampling and the quantities of fish released shall be recorded in the logbook ([669]).

Discard plan for certain demersal fisheries in north-western waters ([670])

The discard plan applies to all vessels engaged in the demersal fisheries in the north-western waters, for 3 years from 1 January 2016 and in relation to species caught in those fisheries.

Inspectors should note that the landing obligation applies to all vessels engaged in demersal fisheries in the north-western waters. The demersal species concerned are certain fisheries for common sole, cod, haddock, whiting, saithe, Norway lobster and hake.

Inspectors should note that there are survivability exemptions for Norway lobster, which shall be released immediately for incidental catches caught in pots, traps or creels (gear codes FPO and FIX) in ICES Division VIa and Subarea VII. There are also survivability exemptions for common sole below the MCRS in 2017 in certain inshore trawl fisheries in ICES Division VIId.

By way of derogation to the landing obligation, the following may be discarded under the *de minimis* exemption:

- common sole by vessels in ICES Divisions VIId, e, f and g using trammel and gill nets and by vessels using gear with increased selectivity (TBB gear with a mesh size of 80-199 mm);
- whiting (*Merlangius merlangus*):
  - » by vessels using bottom trawls of less than 100 mm in ICES Divisions VIId and e,
  - » by vessels using bottom trawls of not at least 100 mm in ICES Divisions VIIb-j,
  - » by vessels using bottom trawls of less than 100 mm in ICES Subarea VII except Divisions VIIa, d and e;
- Norway lobster by vessels obliged to land Norway lobster in ICES Subareas VII and VIa.

Using the secure Union control website, the Member States concerned shall submit the lists of vessels determined for each particular fishery to the Commission and other Member States.

([671]) Commission Delegated Regulation (EU) No 1394/2014.

Region 3

Discard plan for certain pelagic fisheries in south-western waters ([671])

The discard plan applies to all vessels engaged in small and large pelagic fisheries in relation to species caught with the gear defined and in fisheries that are subject to catch limits for 3 years from 1 January 2015.

The landing obligation applies to all vessels prosecuting the small and large pelagic fisheries for species subject to catch limits, namely mackerel, horse mackerel, sprat, anchovy, albacore tuna, blue whiting and jack mackerel in ICES Zones VIII, IX, X and CECAF 34.1.1., 34.1.2. and 34.2.0.

However, by way of derogation, certain fisheries are subject to high survivability exemptions. The landing obligation shall not apply to anchovy, horse mackerel, jack mackerel and mackerel in the artisanal purse seine fisheries and all such catches are subject to certain conditions being met. Certain fisheries are also subject to exemptions either on scientific advice or under the *de minimis* provisions, as follows.

Quantities of blue whiting taken in the industrial pelagic fishery in ICES Zone VIII may be discarded where that species is processed into surimi paste. Inspectors should verify that the master has recorded the quantities of such species discarded in the fishing logbook. They should also, where possible, cross-check the quantities of blue whiting discarded against the volume of surimi produced and recorded in the production logbook, where applicable. There are, however, no conversion factors from whole fish to surimi paste laid down in Union fisheries law.

ICES Zone VIII of albacore tuna fisheries using mid-pair trawls. Inspectors should verify that the master has recorded the quantities of such species discarded in the fishing logbook.

ICES Zone VIII of anchovy, mackerel and horse mackerel fisheries using pelagic mid-water trawls and purse seines in ICES zones VIII and X and CECAF areas 34.1.1, 34.1.2 and 34.2.0). Inspectors should verify that the master has recorded the quantities of such species discarded in the fishing logbook.

Changes are made to the MCRS for anchovy and horse mackerel in certain fisheries.

Discard plan for certain demersal fisheries in south-western waters ([672])

The discard plan applies to all vessels engaged in the demersal fisheries in the south-western waters, for 3 years from 1 January 2016 and in relation to species caught in those fisheries.

Inspectors should note that the landing obligation applies to all vessels engaged in demersal fisheries in the south-western waters. The demersal species concerned are certain fisheries for:

- fisheries in ICES Divisions VIIIa, b, d and e:
  - » common sole:
- all bottom trawls of a mesh size between 70 mm and 100 mm wide,
- all trammel nets and gill nets of a mesh size of at least 100 mm wide;
  - » hake:
- all bottom trawls and seines of a mesh size of at least 100 mm wide,
- all long lines,
- all gill nets of a mesh size of at least 100 mm wide,
- Norway lobster for all bottom trawls with a mesh size of at least 70 mm;
- fisheries in ICES Divisions VIIIc and IXa:

([672]) Commission Delegated Regulation (EU) No 2016/2374.

([673]) Commission Delegated Regulation (EU) No 1392/2014.

([674]) Annex III to Regulation (EC) No 1967/2006.

  - » Norway lobster:
- all bottom trawls with a mesh size of at least 70 mm;
  - » hake:
- all bottom trawls and seines vessels of a mesh size of at least 70 mm,
- all gill nets vessels of a mesh size between 80 mm and 99 mm,
- all vessels with long lines using a hook size greater than 3.85 mm +/– 1.15 mm long and 1.6 mm +/– 0.4 mm wide;
- fisheries in ICES Division IXa:
  - » common sole and plaice for trammel nets and gill nets with a mesh size of at least 100 mm.

By way of derogation to the landing obligation, the following quantities may be discarded under the *de minimis* exemption:

- common sole by vessels in ICES Divisions VIIIa and b:
  - » by vessels using beam trawls and bottom trawls targeting this species,
  - » by vessels using trammel nets and gillnets targeting this species;
- hake by vessels using trawls in ICES Subareas VIII and IX.

Using the secure Union control website, the Member States concerned shall submit the lists of vessels determined for each particular fishery to the Commission and other Member States.

The Mediterranean Sea and the eastern Atlantic

Discard plan for certain small pelagic fisheries in the Mediterranean Sea ([673])

Inspectors should note that the landing obligation applies to the fisheries for small pelagic species subject to minimum sizes ([674]). However, by way of derogation, certain fisheries are subject to *de minimis* exemptions, as follows.

- *Western Mediterranean in small pelagic OTM and purse seine fisheries*: inspectors should verify that the master has recorded the quantities of such species subject to minimum sizes and discarded in the fishing logbook.
- *Northern Adriatic in small pelagic OTM and purse seine fisheries*: inspectors should verify that the master has recorded the quantities of species subject to minimum sizes discarded in the fishing logbook.
- *Southern Adriatic and Ionian Sea in small pelagic OTM and purse seine fisheries*: inspectors should verify that the master has recorded the quantities of species subject to minimum sizes discarded in the fishing logbook.
- *Malta and south of Sicily in small pelagic OTM and purse seine fisheries*: inspectors should verify that the master has recorded the quantities of species subject to minimum sizes discarded in the fishing logbook.
- *In the Aegean Sea and Crete Island in pelagic purse seine fisheries*: anchovy, sardine, mackerel and horse mackerel.

([675]) Commission Delegated Regulation (EU) No 2015/98.

([676]) Article 15(1) Of Regulation (EU) No 1380/2013.

Discard plan for certain demersal fisheries in the Mediterranean Sea (insert footnote: Commission Delegated Regulation (EU) 2017/86)

Inspectors should note that the landing obligation applies to the fisheries for demersal species subject to minimum sizes.

However there are survivability exemptions for common sole caught with a beam trawl (TBB) and scallops, carpet clams and venus shells caught with mechanised dredges (HMD).

There are also de minimus exceptions for hake, red mullet caught with trawls and gill nets in the western Mediterranean Sea, for hake, red mullet and deep-water rose shrimp caught with trawls, beam trawls and gill nets in the Adriatic Sea and for hake, and sole caught with trawls and gill nets in the Adriatic Sea..

Discard plan for bivalve mollusc Venus in Italian territorial waters (insert footnote: Commission Delegated Regulation (EU) 2016/2376)

The discard plan introduces a reduced MCRS for Venus spp, of 22 mm in Italian territorial waters compared with the standard MCRS of 25 mm. Fish between 22 mm and 25 mm may not be used for direct human consumption

Region 9, Black Sea

Discard plan for turbot fisheries in the Black Sea (insert footnote: Commission Delegated Regulation (EU) 2017/87)

The discard plan introduces a survivability exemption for turbot caught with bottom set gill nets in the Black Sea.

Implementation of the Union's international obligations in respect of the landing obligation ([675])

The landing obligation applies in respect of catches taken by Union vessels outside Union waters and in waters not subject to third countries' sovereignty or jurisdiction ([676]).

Appendix 1: Bibliography

- European Parliament study IP/B/PECH/IC/2014_20, *The landing obligation and its implications on the control of fisheries*, September 2015.

Appendix 2: Links and references

- Copies of regulations: http://eur-lex.europa.eu
- Member State websites (public and secure).
- ICCAT, *International Commission for the Conservation of Atlantic Tuna*, ICCAT Publications, https://iccat.int/en/RecsRegs.asp

Appendix 3: Legislation

- Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.
- Council Regulation (EC) No 1224/2009 of 20 November 2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy, amending Regulations (EC) No 847/96, (EC) No 2371/2002, (EC) No 811/2004, (EC) No 768/2005, (EC) No 2115/2005, (EC) No 2166/2005, (EC) No 388/2006, (EC) No 509/2007, (EC) No 676/2007, (EC) No 1098/2007, (EC) No 1300/2008, (EC) No 1342/2008 and repealing Regulations (EEC) No 2847/93, (EC) No 1627/94 and (EC) No 1966/2006.
- Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the common fisheries policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC.
- Commission Delegated Regulation (EU) No 1392/2014 of 20 October 2014 establishing a discard plan for certain small pelagic fisheries in the Mediterranean Sea.
- Commission Delegated Regulation (EU) No 1393/2014 of 20 October 2014 establishing a discard plan for certain pelagic fisheries in north-western waters.
- Commission Delegated Regulation (EU) No 1394/2014 of 20 October 2014 establishing a discard plan for certain pelagic fisheries in south-western waters
- Commission Delegated Regulation (EU) No 1395/2014 of 20 October 2014 establishing a discard plan for certain small pelagic fisheries and fisheries for industrial purposes in the North Sea.
- Commission Delegated Regulation (EU) No 1396/2014 of 20 October 2014 establishing a discard plan in the Baltic Sea.
- Commission Delegated Regulation (EU) 2015/98 of 18 November 2014 on the implementation of the Union's international obligations as referred to in Article 15(2) of Regulation (EU) No 1380/2013 of the European Parliament and of the Council, under the International Convention for the Conservation of Atlantic Tunas and the Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries.
- Regulation (EU) No 2015/812 of the European Parliament and of the Council of 20 May 2015 amending Council Regulations (EC) No 850/98, (EC) No 2187/2005, (EC) No 1967/2006, (EC) No 1098/2007, (EC) No 254/2002, (EC) 2347/2002 and (EC) No 1224/2009, and Regulations (EU) No 1379/2013 and (EU) No 1380/2013 of the European Parliament and

of the Council, as regards the landing obligation, and repealing Council Regulation (EC) No 1434/98.

- Commission Delegated Regulation (EU) 2016/2374 of 12 October 2016 establishing a discard plan for certain demersal fisheries in South-Western waters.
- Commission Delegated Regulation (EU) 2016/2375 of 12 October 2016 establishing a discard plan for certain demersal fisheries in North-Western waters.
- Commission Delegated Regulation (EU) 2016/2250 of 4 October 2016 establishing a discard plan for certain demersal fisheries in the North Sea and in Union waters of ICES Division IIa
- Commission Delegated Regulation (EU) 2016/2376 of 13 October 2016 establishing a discard plan for mollusc bivalve Venus spp. in the Italian territorial waters
- Commission Delegated Regulation (EU) 2017/86 of 20 October 2016 establishing a discard plan for certain demersal fisheries in the Mediterranean Sea
- Commission Delegated Regulation (EU) 2017/87 of 20 October 2016 establishing a discard plan for turbot fisheries in the Black Sea
- General Fisheries Commission for the Mediterranean (GFCM)
- Recommendation GFCM/39/2015/1 establishing further precautionary and emergency measures in 2016 for small pelagic stocks in the Adriatic Sea (GSA 17 and GSA 18).
- Recommendation GFCM/39/2015/2 on the establishment of a set of minimum standards for bottom trawling fisheries of demersal stocks in the Strait of Sicily, pending the development and adoption of a multiannual management plan.
- Recommendation GFCM/39/2015/3 on the establishment of a set of measures to prevent, deter and eliminate illegal, unreported and unregulated fishing in turbot fisheries in the Black Sea.
- Recommendation GFCM/39/2015/4 on management measures for piked dogfish in the Black Sea.

Module 6 Union inspectors, SCIP and JDP requirements

Module 6	Union inspectors, SCIP and JDP requirements
Section 6.1	Union inspectors

Section 6.1 Union inspectors

Coverage: all EU areas and all EU vessels

Objective(s)

This course is intended to give Union inspectors an overview of their role, legal status and obligations prior to carrying out their duties as Union inspectors, with a view to harmonising the way in which inspections are conducted and by doing so creating a level playing field.

Overview

The concept of Union inspectors was first introduced to improve cooperation and coordination between all relevant authorities in order to achieve compliance with the rules of the CFP. The main criteria required to meet this objective was seen as the facilitation of the exchange of national inspectors and a requirement that Member States treat inspection reports drawn up by Union inspectors, inspectors of another Member State or Commission inspectors as equal to their own inspection reports for the purpose of establishing the facts and that any such reports should constitute admissible evidence in administrative or judicial proceedings of any Member State. Member States and the EFCA nominate their officials meeting the criteria for a Union inspector to the Commission. The EFCA maintains a list of all Union inspectors available on its website.

Entry requirements

The trainee should have completed fisheries national training programmes and have sufficient experience as a national inspector to meet the criteria established for a Union inspector ([677]) (see Part D Methodology).

([677]) Article 119 of Commission Implementing Regulation (EC) No 404/2011.

Chapter 6.1.1 — Competencies and powers of Union inspectors

Part A Introduction

This chapter focuses on the competencies required of national inspectors to be designated as a Union inspector and the structures required to be put in place in order to allow Union inspectors to perform their duties as envisaged by the regulations.

Part B Concepts and definitions

(a) Union inspector ([678]) ([679])

Union inspectors are defined as officials of a Member State or of the Commission or the body designated by it who are in possession of the necessary skills and experience to perform fisheries inspections.

(b) Police and enforcement powers

Police and enforcement powers vary across Member States, but typically may include powers to interview persons involved in an alleged offence, arrest suspected persons, seize evidence and/or order a vessel to proceed to port.

(c) European Fisheries Control Agency ([680])

The EFCA is an EU body established to organise operational coordination of fisheries control and inspection activities by the Member States and to assist them to cooperate so as to comply with the rules of the CFP in order to ensure its effective and uniform application.

(d) Joint deployment plans ([681])

A JDP is a plan for coordinating joint deployment of national means (inspection vessels, surveillance aircraft, mobile mixed inspection teams, etc.) to monitor and inspect fishing activities that fall under the rules of the CFP. The JDP normally gives effect to a SCIP or a national action programme between two or more Member States which sets out the objectives, priorities and benchmarks for control and inspection by Member States and which has been adopted by the Commission for EU waters or an RFMO for international waters.

Part C Data and information sources

List of Union inspectors: http://www.efca.europa.eu/content/union-inspectors

Part D Methodology

(a) Qualification requirements for a Union inspector ([682])

In order to qualify as a Union inspector, an official must:

- have thorough experience in the field of fisheries control and inspection;
- have in-depth knowledge of fisheries legislation of the EU;
- have thorough knowledge of one of the official languages of the EU and a satisfactory knowledge of a second;

([678]) Regulation (EC) No 1224/2009.

([679]) Commission Implementing Regulation (EU) No 404/2011.

([680]) Article 3 of Regulation (EC) No 768/2005.

([681]) Articles 2(c) and 10 of Council Regulation (EC) No 768/2005.

([682]) Article 119(2) of Commission Implementing Regulation (EU) No 404/2011.

- be physically fit to perform their duties;
- have, where appropriate, received the necessary training to undertake inspections of fishing vessels at sea in a manner that does not endanger themselves or others involved in such operations.

(b) List of Union inspectors ([683])

Member States and the EFCA must notify the Commission of the names of their officials they wish to have appointed as Union inspectors. Member States must notify the Commission of any changes to the national lists by October each year and the Commission must ensure the amended list is published by 31 December of that year. The list is published on the official website of the EFCA and must also be communicated to any RFMO with whom Union inspectors may carry out inspections in the framework of that organisation ([684]). Union inspectors must be provided with an identification document issued by the EFCA stating their identity and capacity.

(c) Powers of Union inspectors

Union inspectors may be assigned for:

- the implementation of a SCIP, through JDPs coordinated by the EFCA;
- international fisheries control programmes, for example RFMOs, where the EU is under an obligation to provide the means for controls.

For the consistent and effective prosecution of infringements, inspection and surveillance reports drawn up by Commission officials, Union inspectors and officials of Member States are to be used in the same way as national reports ([685]). At the same time, Member States should set up an electronic database providing the inspection and surveillance reports of their officials.

In the case of an infringement, it should be ensured that the appropriate measures are taken by the appropriate competent authority and that the infringement can effectively be followed up irrespective of where it occurs, and in certain cases of serious infringements there should be an enhanced follow-up to enable immediate investigation.

Union inspectors have access without delay to ([686]):

- all areas on board Union fishing vessels and any other vessels carrying out fishing activities, public premises or places and means of transport;
- all information and documents which are needed to fulfil their tasks, in particular the fishing logbook, landing declarations, catch certificates, the transhipment declaration, sales notes, vessel hold and capacity plans, the engine power certificate as well as other relevant documents to the same extent and under the same conditions as officials of the Member State in which the inspection takes place.

(d) Member State obligations ([687])

Member States should facilitate the execution of duties by Union inspectors and afford them such assistance as they need to fulfil their tasks; equally they may permit Union inspectors to assist national inspectors in the execution of their duties.

(e) Common sense and use of 'best practice'

Union inspectors have to comply with both EU law and the national law of the Member State where the inspection takes place ([688]). This implies that Union inspectors must be seen to be complying with the requirements of these laws when undertaking inspections and gathering evidence of possible infractions. However, most Member States each

([683]) Article 120 of Commission Implementing Regulation (EU) No 404/2011.

([684]) Article 121 of Commission Implementing Regulation (EU) No 404/2011.

([685]) Article 77 of Council Regulation (EC) No 1224/2009.

([686]) Article 79(4) of Council Regulation (EC) No 1224/2009.

([687]) Article 122(3) of Commission Implementing Regulation (EU) No 404/2011.

([688]) Article 122(4) of Commission Implementing Regulation (EU) No 404/2011.

have individual legal systems with their own specific requirements regarding the implementation of the legal process by enforcement authorities and controls on the actions of those authorities. A formal procedure which is legally acceptable for establishing the facts and reporting an alleged offence in one Member State may not be so in another. However, as a general rule, evidence gathered and presented in a professional manner and in good faith by authorised and creditable officials will be respected by most legal authorities. Union inspectors should always seek the advice of any host officers and be guided by that advice when undertaking their duties. They should also ensure they are aware of any specific instructions laid down in the JDP decision.

Therefore, to help mitigate any questions over the legal acceptance of statements and evidence, officials acting as Union inspectors should ensure that inspections are conducted to the highest standard, that the inspection report and statements are completed in such a manner as to accurately record all the facts and findings of the inspection and that any evidence is obtained and recorded in an appropriate manner, supported if possible by contemporaneous notes. Union inspectors must remain fully aware of the limitations of their authority, particularly of the exclusion of any police or enforcement powers when operating beyond their national territory. Presenting inspection reports which may be scrutinised by a judiciary system unfamiliar to the inspector is challenging, and only by aiming for the highest standards can a Union inspector effectively mitigate the risks of inadvertently gathering and presenting evidence in an inappropriate manner.

Union inspectors may be guided by any cross-Member State agreements regarding best practices to be followed by Union inspectors while carrying out their duties. For example, guidance may be available regarding the legal requirements surrounding the establishing of facts and gathering of evidence as pertaining to a particular Member State.

Of course, as with all other JDP matters, Union inspectors should not hesitate to liaise with the Coordination Centre in Charge (CCiC) of the JDP wherever advice is required regarding the correct course of actions during inspections of fishing vessels.

Chapter 6.1.2 — Duties of Union inspectors

Part A Introduction

In the accomplishment of their tasks, Union inspectors must comply with the law of the EU and, as far as applicable, with the national law of the Member State where the inspection takes place ([689]).

JDPs constitute the normal operation environment for Union inspectors.

Part B Concepts and definitions

Part C Data and information sources

Electronic inspection reports

List of Union inspectors

Part D Methodology

(a) Conduct rules ([690])([691])

Union inspectors should carry out their duties in accordance with Union law. They must conduct inspections in a non-discriminatory manner at sea, in ports, during transport, on processing premises and during the marketing of the fisheries products. In particular, Union inspectors should:

- check the legality of the catch kept on board, stored, transported, processed or marketed and the accuracy of the documentations or electronic transmissions relating to it;
- check the legality of the fishing gear used for the targeted species and for the catches kept on board;
- if appropriate, check the stowage plan and the separate stowage of species;
- check the marking of fishing gears;
- question persons deemed to have information on the matter that is the subject of the inspection;
- conduct inspections in such a manner as to cause the least disturbance or inconvenience to the vessel or transport vehicle and its activities as well as to the storing, processing and marketing of the catch;
- as far as possible, prevent any degradation of the catch during the inspection;
- in the course of inspections, they may take picture, video and audio recordings;
- consult with any control observers on board the fishing vessel;
- debrief the operator at the end of the inspection.

(b) Identity card

Union inspectors shall present a service card stating their identity and the capacity under which they operate. For this purpose they shall be provided with an identification document issued by the EFCA stating their identity and capacity.

When undertaking inspections of flag vessels and therefore acting as national inspectors, the national procedures regarding the use and presentation of service/identity cards should be observed.

([689]) Article 122(4) of Commission Implementing Regulation (EU) No 404/2011.

([690]) Article 74 of Council Regulation (EC) No 1224/2009.

([691]) Article 97 of Commission Implementing Regulation (EU) No 404/2011.

Union inspectors tasked to operate in the ports of an RFMO must be issued with the appropriate RFMO identity card. The NAFO ([692]), the North East Atlantic Fisheries Commission (NEAFC) ([693]) and the ICCAT ([694]) each have unique identity cards and Union inspectors must ensure they are in possession of the appropriate card prior to deploying to the area.

(c) Union inspector obligations

In the accomplishment of their tasks, Union inspectors must comply with EU law and, as far as applicable, with the national law of the Member State where the inspection takes place. Union inspectors must immediately present their official identification document to the master of any fishing vessel they intend to inspect.

Union inspectors have no police and enforcement powers beyond the territory of their Member State of origin or outside the Union waters under the sovereignty and jurisdiction of their Member State of origin. In addition, Union inspectors must limit their enquiries to matters pertaining to the CFP and should not be tempted to look into matters outside the remit of the CFP.

Equally, Union inspectors retain the same moral obligation as any member of the public to report any matter coming to their attention which appears to endanger either the safety of those involved in a fishing operation or the natural environment. Union inspectors faced with such a situation should in the first instance contact the JDP coordinator at the CCiC to report the matter and seek further advice.

(d) Inspection reports ([695])

Union inspectors must prepare and distribute an inspection report for all inspections undertaken at sea or ashore. The report should be completed during the inspection or as soon as possible after completion of the inspection. For inspections of EU vessels, the fields covered ([696]) covered under the list of minimum information required for the completion of inspection reports, should be followed. For inspections undertaken on behalf of RFMOs, inspectors shall use the report format stipulated by the RFMO concerned ([697]) ([698]) ([699]). These may be in paper or electronic format.

(e) Additional inspection reports

Each jurisdiction may require additional reports from the inspectors as part of any alleged infringement reports, for example a personal statement of events may be required where the inspector first provides their personal details, qualifications and experience as relevant to their role as an inspector, followed by a chronological report of events as witnessed by the individual. The content, style and legal standing of this type of report may vary widely and Union inspectors should be guided by the JDP decision and seek the advice of the JDP coordinator if appropriate.

(f) Infringement detected by Union inspectors ([700])

Member States shall undertake all appropriate measures in respect of any infringement that a Union inspector has discovered.

(g) Infringement report

If, during the course of undertaking an inspection, relevant data lead the inspector to believe an apparent infringement of the rules has taken place, the legal and material elements, together with any other information relevant to the infringement, shall be included in the inspection report. When several infringements are detected in the course of an inspection, relevant elements of each infringement shall be noted in the inspection

([692]) Annex IV(d) of the NAFO Scheme of Control and Enforcement.

([693]) Annex XI(b) of the NEAFC scheme of control and enforcement.

([694]) Part II.21. of the ICCAT scheme of joint international inspections.

([695]) Article 115 of Commission Implementing Regulation (EU) No 404/2011.

([696]) Article 115 and Annex XXVII of Commission Implementing Regulation (EU) No 404/2011.

([697]) Annex IV.B of the NAFO Scheme of Control and Enforcement.

([698]) Annex XIII of the NEAFC scheme of control and enforcement.

([699]) Part II.11. of the ICCAT scheme of joint international inspection.

([700]) Article 87 of Council Regulation (EC) No 1224/2009.

report. The report should immediately be forwarded to the competent authority of the Member State.

(h) **Transfer of proceedings ([701])**

The Member State in the territory or waters of which an apparent infringement has been discovered may transfer proceedings relating to that infringement to the competent authorities of the flag Member State or to the Member State of which the offender holds the citizenship, with the agreement of the Member State concerned and on condition that the transfer is more likely to achieve the appropriate result.

The flag Member State may transfer proceedings relating to an infringement to the competent authorities of the inspecting Member State, with the agreement of the Member State concerned and on condition that the transfer is more likely to achieve the appropriate result.

(i) **Recording and admissibility of evidence ([702])**

When gathering evidence in support of any investigations surrounding an apparent infringement of the regulations in force in the area of operations, Union inspectors should be guided by the course 'Finalise the inspection' ([703]). However, in doing so, Union inspectors should also remain alert to the different methods of recording and retaining evidence that may be required by the judicial systems of the Member State concerned. By use of best practice, as discussed previously in this document, inspectors can ensure to the best of their ability that their efforts to gather and preserve evidence to the highest professional standards are recognised by the judicial system involved in pursuing the alleged infringement. In cases where an apparent infringement has been detected during a JDP, Union inspectors are advised to consult with the CCiC regarding the procedures to be followed.

([701]) Article 86 of Regulation (EC) No 1224/2009.

([702]) Article 115.2 of Commission Implementing Regulation (EU) No 404/2011.

([703]) *General principles and specific types of inspection*, Volume 3 of the core curriculum.

Appendix 1: Bibliography

None

Appendix 2: Links and references

- Copies of regulations: http://eur-lex.europa.eu
- Member State websites (public and secure).

Appendix 3: Legislation

- Council Regulation (EC) No 768/2005 of 26 April 2005 establishing a Community Fisheries Control Agency and amending Regulation (EEC) No 2847/93 establishing a control system applicable to the common fisheries policy.
- Council Regulation (EC) No 1224/2009 of 20 November 2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy, amending Regulations (EC) No 847/96, (EC) No 2371/2002, (EC) No 811/2004, (EC) No 768/2005, (EC) No 2115/2005, (EC) No 2166/2005, (EC) No 388/2006, (EC) No 509/2007, (EC) No 676/2007, (EC) No 1098/2007, (EC) No 1300/2008, (EC) No 1342/2008 and repealing Regulations (EEC) No 2847/93, (EC) No 1627/94 and (EC) No 1966/2006.
- Commission Implementing Regulation (EU) No 404/2011 of 8 April 2011 laying down detailed rules for the implementation of Council Regulation (EC) No 1224/2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy.
- Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the common fisheries policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC.
- Northwest Atlantic Fisheries Organisation (NAFO) Scheme of Control and Enforcement.
- North-East Atlantic Fisheries Commission (NEAFC) Scheme of Control and Enforcement.
- International Commission for the Conservation of Atlantic Tunas (ICCAT) Joint Scheme of International Inspection (Annex 7 of ICCAT Recommendation 2014-04).

Section 6.2 SCIP and JDP requirements

Coverage: all EU regions and EU vessels

Objectives

The purpose of this section is to assist Union inspectors in understanding the relationships between the Member States, the Commission and the EFCA as well as the roles played by the Union inspector in the implementation of specific control and inspection programmes (SCIPs) facilitated through the joint deployment plan (JDP).

Overview

Adoption of conservation measures assist with the achievement of the objectives of the CFP. Included in such measures are multiannual recovery plans ([704]) as a means to ensure conservation and sustainable exploitation of a stock or (in the case of a mixed fishery) groups of stocks. Multiannual plans provide for SCIP ([705]) specifying objectives, procedures and benchmarks for inspection activities established on the basis of risk assessment.

The mission of the EFCA ([706]) includes the coordination of implementation of the SCIP through a JDP, giving effect to the objectives, priorities, procedures and benchmarks determined through the SCIP. Subsequently, the means of control which can be pooled by each Member State concerned can be identified. The JDP establishes common rules for the control and inspection activities to be carried out by each Member State concerned, in effect creating harmonised control and inspection procedures, including mutual access to relevant data.

Entry requirements

The section is applicable to all trainees, and in particular to Union inspectors. They should have a thorough knowledge of the objectives and principles of the CFP as well as a detailed understanding of the concept of EU fisheries control, inspection and enforcement.

([704]) Article 7 of Regulation (EU) No 1380/2013.

([705]) Article 95 of Regulation (EC) No 1224/2009.

([706]) Article 3 of Regulation (EC) No 768/2005.

Chapter 6.2.1 — SCIP requirements

Part A Introduction

This chapter will familiarise trainees with an understanding of the relationships between the Member States, the Commission and the EFCA in the implementation of SCIPs facilitated through the JDP.

Part B Concepts and definitions

(a) **Control and inspection**

Measures taken by Member States to control and inspect fishing vessels within the scope of the CFP, including surveillance and monitoring activities.

(b) **Means of control and inspection**

This means surveillance vessels, aircraft, vehicles and other material resources as well as inspectors, observers and other human resources used by Member States concerned for control and inspection.

Part C Data and information sources

SCIP decisions

JDPs

List of Union inspectors

Part D Methodology

(a) **Establishing the SCIP**

The decision adopted by the Commission follows a specific structure.

- Scope

This part of the decision specifies the activities which the SCIP will cover, the start date and the Member States concerned.

- Objectives

This part of the decision covers 'general' objectives concerning the uniform and effective implementation of conservation and control measures applicable to the stocks concerned. Additionally, the objectives may stress the importance of compliance with specific measures.

- Priorities

Generally, the priorities for control and inspection activities are determined on the basis of a risk management strategy and are applicable to each group of fishing vessels, gear type, operator and fishing-related activity. Each Member State must attribute the respective levels of priority on the basis of the results of its risk assessment.

- Procedures for risk assessment

Each Member State assesses the risk attached to the stocks and areas concerned and considers, using all relevant information, the risk of non-compliance and the potential consequences were it to happen, scoring each category on the basis of very low, low, medium, high and very high.

- Risk management strategy

On the basis of the risk assessment, each Member State shall define a risk management strategy, allocating appropriate control and inspection resources in the most cost-effective manner. Such strategies shall be coordinated at regional level through a JDP.

- Relation with JDP procedures

Where applicable, in the framework of a JDP, each Member State shall communicate results of its risk assessments to the EFCA together with associated levels of risk and the targets for inspection. It is entirely appropriate that such results be periodically updated using information collected during joint inspection and surveillance activities and used by the EFCA to update the regional risk management strategy.

- Target benchmarks

These are set out in an annex and concern the high and very high risk levels for the stocks and areas concerned, supplementing those provided by the control regulation for multiannual plans. Control objectives, depending on the risk level, are also set out in this annex. Target benchmarks for the other risk levels, very low, low and medium, may be determined through national control action plans. Target benchmarks should be re-assessed annually.

(b) **Implementing the SCIP**

- Cooperation between Member States and with third countries

The SCIP lays down 'ground rules' for its implementation, obliging all Member States concerned to cooperate with each other for the implementation of the SCIP, also requiring that all other Member States cooperate with the Member States concerned. Where third countries are involved, Member States may cooperate with them.

- Joint inspection and surveillance activities

In the interest of increasing efficiency and effectiveness of their fisheries control systems, Member States concerned by the SCIP are obliged to undertake joint inspection and surveillance activities in Union waters under their jurisdiction and on their territories, where applicable.

- Exchange of data

Each Member State concerned with implementing the SCIP shall ensure the direct electronic exchange of data as provided for in the control regulation.

- Information

Each Member State concerned shall communicate details of each inspection carried out according to the format specified in the SCIP and by direct electronic means. This shall be communicated to the Commission and the EFCA. This shall also include details of infringements and actions taken. Specific communications may be required for certain stocks in certain areas ([707]).

- Evaluation

Member States are obliged to submit an annual evaluation report to the Commission and to the EFCA concerning the effectiveness of control and inspection activities carried out under the SCIP. The content of this report is taken into account by the EFCA in its annual assessment of the JDP.

([707]) Article 16 of Regulation (EC) No 768/2005.

Baltic Sea

SCIP for fisheries exploiting cod, herring, salmon and sprat in the Baltic Sea ([708])

The SCIP applies until 31 December 2018.

It is implemented by Denmark, Germany, Estonia, Latvia, Lithuania, Poland, Finland and Sweden.

It concerns the stocks of cod, herring, salmon and sprat in the Baltic Sea.

Inspectors should be aware that the objectives are particularly aimed at ensuring compliance with fishing opportunities management, monitoring quota uptake and effort regime in the areas concerned, reporting obligations and the reliability of the information recorded and reported, and compliance with the landing obligation.

Inspectors should be aware that the procedures for risk assessment shall take account of the points set down in Annex I to this decision. Inspectors should in particular implement the target benchmarks for inspections ashore of at least 10 % of overall landings for high risk and at least 15 % of overall landings for very high risk level fishing vessels for the respective fishery.

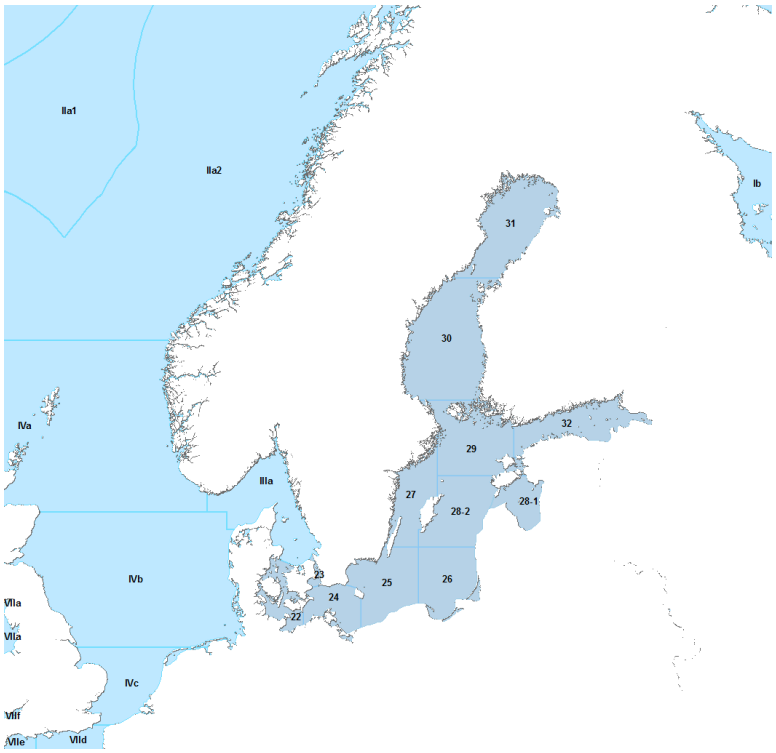


Figure 112 — *SCIP area for fisheries exploiting cod, herring, salmon and sprat in the Baltic Sea*

Region 2-3

SCIP for fisheries exploiting cod, plaice and sole in the North Sea, the Kattegat, the Skagerrak, the Eastern Channel, the waters west of Scotland and the Irish Sea ([709])

The SCIP applies until 31 December 2018.

It is implemented by Belgium, Denmark, Germany, Ireland, France, the Netherlands, Sweden and the United Kingdom.

Inspectors should be aware of the objectives aimed at achieving compliance with fishing opportunities management, monitoring quota uptake and effort regime in the areas concerned, reporting obligations and the reliability of the information recorded and reported, and compliance with the landing obligation.

([708]) Commission Implementing Decision 2013/305/EU of 21 June 2013.

([709]) Commission Implementing Decision 2013/328/EU of 25 June 2013.

Inspectors should be aware that the procedures for risk assessment take account of the points set down in Annex I to this decision. Inspectors should in particular implement the target benchmarks for inspections ashore of at least 10 % of overall landings for high risk and at least 15 % of overall landings for very high risk level fishing vessels for the respective fishery.

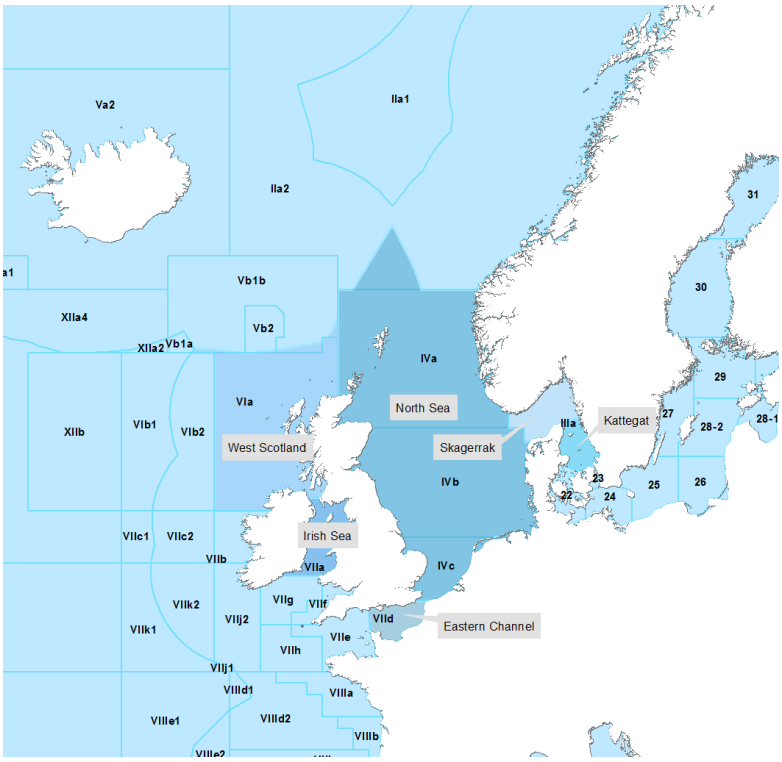


Figure 113 — *SCIP area for fisheries exploiting cod, plaice and sole in the North Sea, the Kattegat, the Skagerrak, the Eastern Channel, the waters west of Scotland and the Irish Sea*

SCIP for pelagic fisheries in Western Waters of the north-east Atlantic ([710])

The SCIP applies until 31 December 2018.

It is implemented by Denmark, Germany, Estonia, Ireland, Spain, France, Latvia, Lithuania, the Netherlands, Poland, Portugal and the United Kingdom.

It concerns the stocks of herring, mackerel, horse mackerel, anchovy and blue whiting in Union waters of ICES Subareas V, VI, VII, VIII and IX and Union waters of CECAF 34.1.1. (Western Waters) along with mackerel and herring in EU waters of ICES Division IVa (the northern North Sea).

It covers all fishing activities and fishing-related activities, imports and exports.

Inspectors should be aware that the objectives are particularly aimed at ensuring compliance with fishing opportunities management, monitoring quota uptake and effort regime in the areas concerned, reporting obligations and the reliability of the information recorded and reported, and compliance with the special rules for the weighing of pelagic species.

Inspectors should be aware that the procedures for risk assessment shall take account of the points set down in Annex I to the decision. Inspectors should in particular implement the target benchmarks for inspections ashore of at least 7.5 % of landings for high risk and at least 7.5 % for very high risk level fishing vessels targeting the herring, mackerel and horse mackerel fisheries.

([710]) Commission Implementing Decision 2012/807/EU of 19 December 2012 as amended by Commission Implementing Decision (EU) 2015/1944.

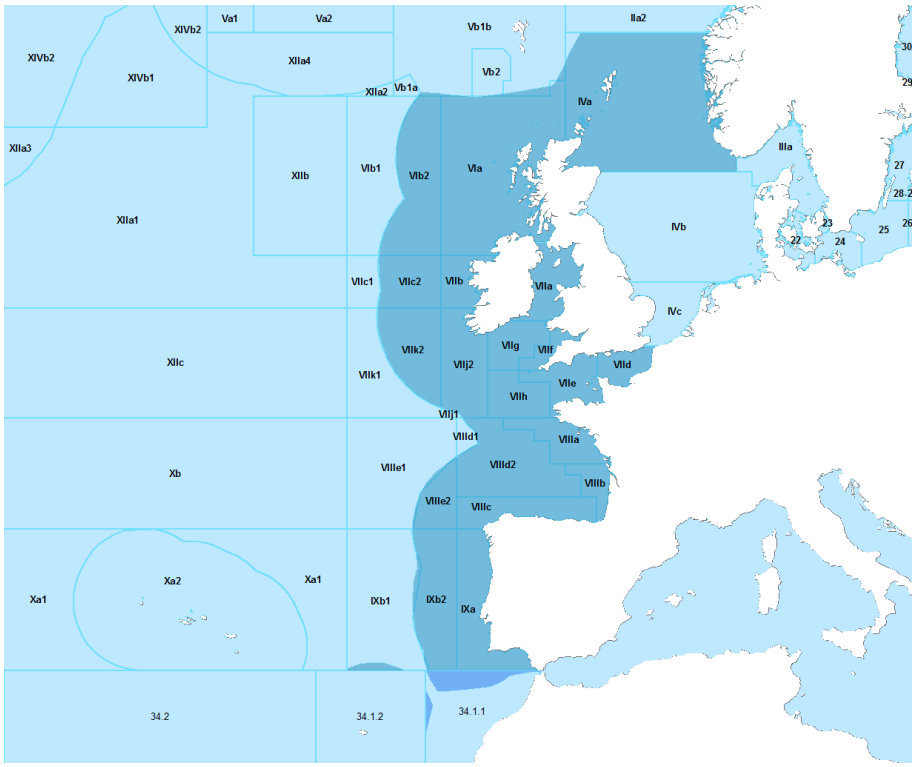


Figure 114 — *SCIP area for pelagic fisheries in Western Waters of the north-east Atlantic*

The Mediterranean Sea and the eastern Atlantic

SCIP for fisheries exploiting stocks of bluefin tuna in the eastern Atlantic and in the Mediterranean, swordfish in the Mediterranean and for fisheries exploiting stocks of sardine and anchovy in the northern Adriatic Sea ([711])

The SCIP applies until 15 March 2018.

It is implemented by Greece, Spain, France, Croatia, Italy, Cyprus, Malta, Portugal and Slovenia.

The objectives are particularly aimed at ensuring compliance with fishing opportunities management, monitoring quota uptake and effort regime in the areas concerned, reporting obligations and the reliability of the information recorded and reported, and compliance with the landing obligation.

The procedures for risk assessment shall take account of the points set down in the Annex I to this decision.

The risk management strategy shall implement the target benchmarks for landing inspections of 10 % of overall landings for high risk and 15 % for very high risk level fishing vessels for the bluefin tuna fishery.

The risk management strategy shall implement the target benchmarks for landing inspections of 10 % of overall landings for high risk and 15 % for very high risk level fishing vessels for the sardine and anchovy fisheries.

For the swordfish fishery landing inspections shall give priority to compliance with technical measures and closure periods.

([711]) Commission Implementing Decision 2014/156/EU of 19 March 2014.

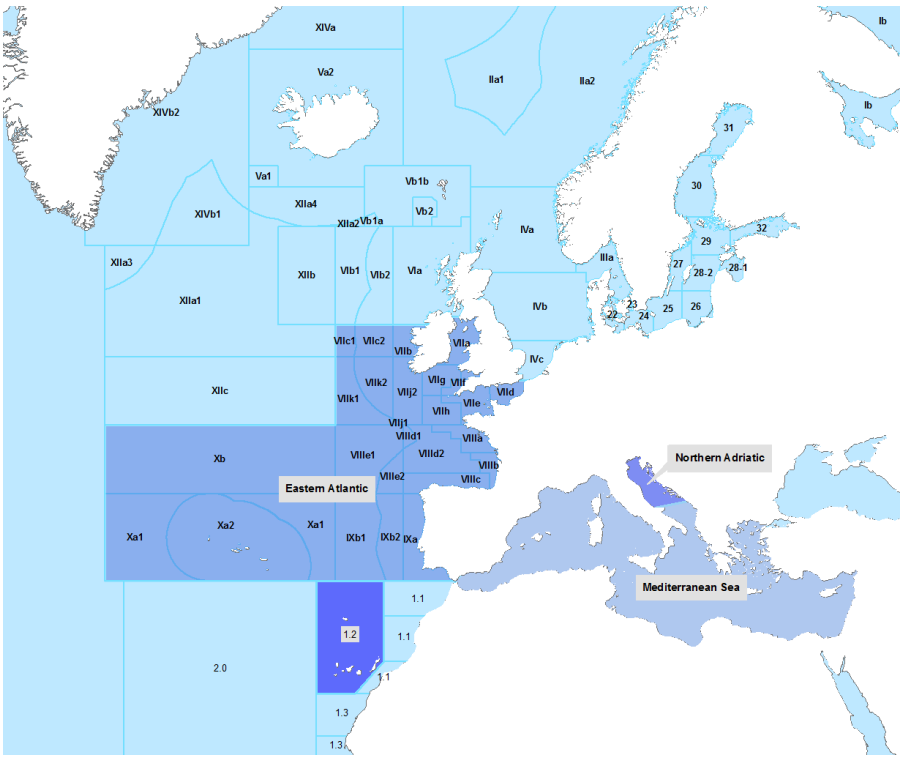


Figure 115 — *SCIP area for fisheries exploiting stocks of bluefin tuna in the eastern Atlantic and in the Mediterranean, swordfish in the Mediterranean and for fisheries exploiting stocks of sardine and anchovy in the northern Adriatic Sea*

Chapter 6.2.2 — JDP requirements

Part A Introduction

JDP protocols governing the devolution of responsibilities between national and Union inspectors are specified in the individual JDP decision.

Part B Concepts and definitions

See Section 6.1.

(a) Coordination Centre in Charge

The coordination centre in charge (CCiC) is normally the Fisheries Monitoring Centre (FMC) of one of the Member States contributing to the JDP. The CCiC is designated within the JDP decision along with contact details, normal operating hours, out-of-hours contact details, communication details and so on.

The CCiC is the centre point of the JDP in terms of receiving and disseminating operational information and reports relevant to the JDP. The CCiC may also undertake analysis of operational data and intelligence, carry out operational risk assessments and advise on the tasking of operational units in the course of the JDP. The CCiC retains command and control responsibility for their national allocated resources but has no command and control authority of other Member States assets, unless this is stipulated within the JDP decision.

The EFCA operations room may be designated as CCiC for certain JDPs at the request of the participating Member States, in which case national coordinators are embedded within the EFCA for the duration of the JDP.

(b) Associated Coordination Centre

Associated Coordination Centres (ACCs) may be nominated FMCs of participating Member States other than the CCiC and are designated within the JDP decision along with other details regarding operational hours, out-of-hours contacts and other communication details. The ACC's role is to support the CCiC during the JDP, particularly with regard to the command and control of the national assets.

Part C Data and information sources

EFCA website: http://www.efca.europa.eu/content/joint-deployment-plans

Part D Methodology

(a) JDPs in EU waters

A JDP gives effect to a SCIP adopted by the Commission which sets out the objectives, priorities and benchmarks for control and inspection by Member States as adopted by the Commission. Generally, JDPs cover a specific area and species, for example the southern North Sea cod, and the Member States contributing to the JDP are those involved in the management measures in place for that particular area and species.

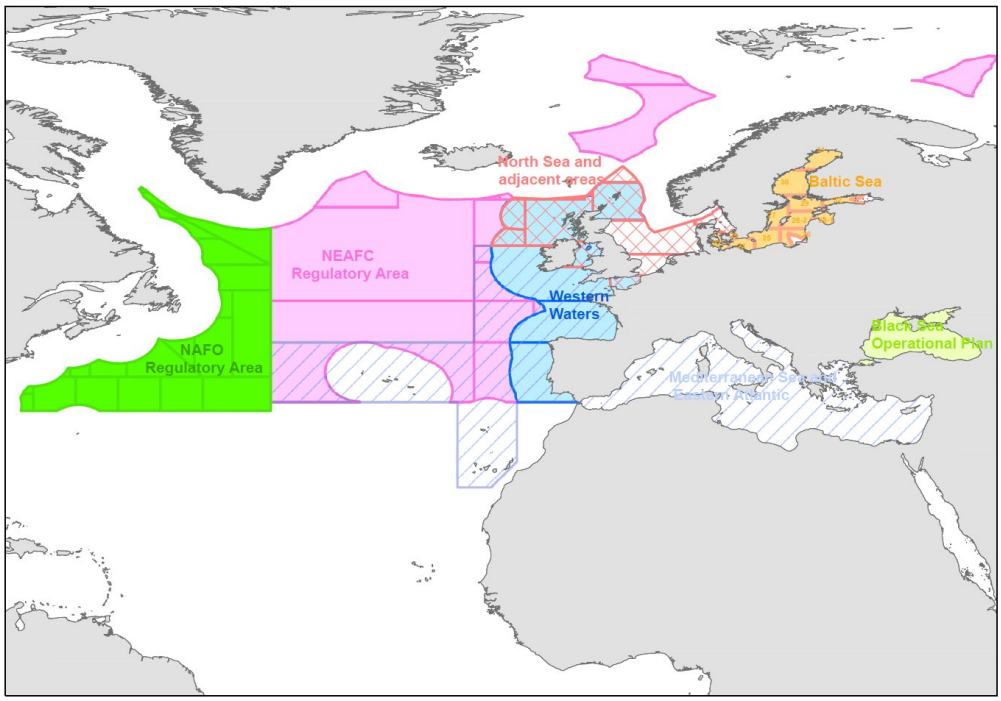


Figure 116 — *Overview of JDPs applicable in EU and international waters (NAFO–NEAFC)*

Whilst it is not mandatory for Union inspectors to be involved in a JDP, they play an intrinsic role in JDPs in that the remit of a Union inspector allows national inspectors appointed as Union inspectors the flexibility to operate across borders and sea areas and on platforms of other Member States.

(b) Reports ([712])

Union inspectors should submit a daily summary on their inspection activities, including the name and identification number of each fishing vessel or craft inspected and the type of inspection carried out, to the competent authorities of the Member State where the inspection took place or, where the inspection was carried out outside the EU, to the flag Member State of the inspected EU fishing vessel and the EFCA.

If an infringement is detected in the course of an inspection, a summarised inspection report must be submitted without delay in the same manner as above. This report should specify at least the date and place of the inspection, the identification of the inspection platform, the identification of the inspected target and the type of infringement detected.

A copy of the full inspection report should be submitted as above within 7 days from the date of inspection. If the Union inspectors have detected an infringement, a copy of the full inspection report shall also be sent to the EFCA.

In case of inspections conducted by Union inspectors as part of a JDP, all reports should be submitted in accordance with the relevant procedures stipulated within the JDP decision.

(c) Baltic Sea

The EFCA coordinates the implementation of the SCIP that was established for fisheries exploiting cod, herring, salmon and sprat in the Baltic Sea. The encompassing objective of EFCA assistance to the Member State concerned is to ensure the uniform and effective implementation of the conservation and control measures applicable to stocks of cod, herring, salmon and sprat in the Baltic Sea SCIP area.

([712]) Article 123 of Commission Implementing Regulation (EU) No 404/2011.

The Baltic Sea JDP (BS JDP) has been operating since 2007 with the participation of Denmark, Germany, Estonia, Latvia, Lithuania, Poland, Finland and Sweden, which collaborate in the implementation of these conservation and control measures through activities that are carried out each year and on a permanent basis in the framework of the Baltic Sea joint campaign.

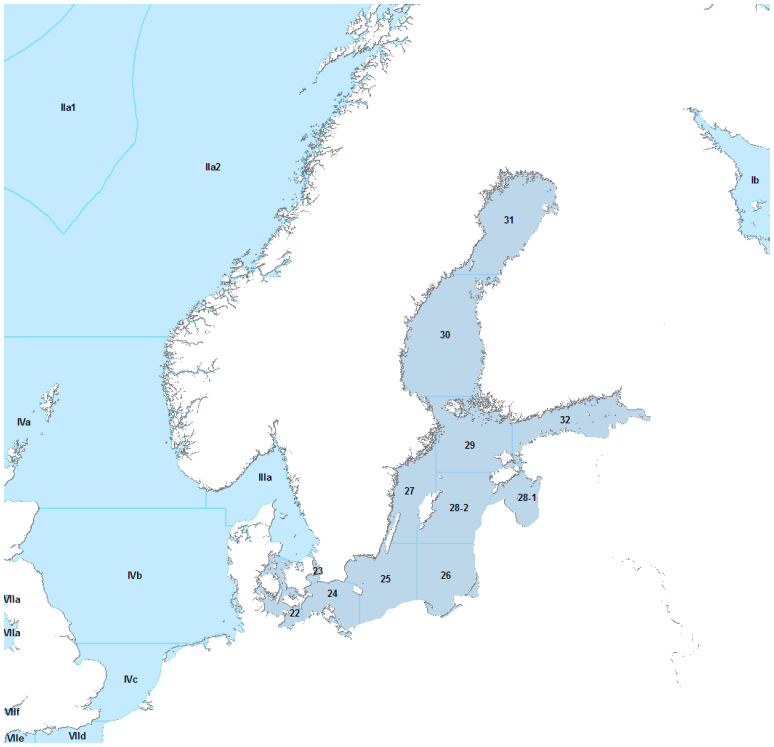


Figure 117 — *Baltic Sea JDP area*

(d) **Regions 2-3**

Western Waters

The EFCA coordinates the implementation of the SCIP for pelagic fisheries in Western Waters of the north-east Atlantic. The SCIP was established in 2012 and is applicable to herring, mackerel, horse mackerel, anchovy and blue whiting in EU waters of ICES Subareas V, VI, VII, VIII and IX, referred to as 'Western Waters'. In 2015 the SCIP was extended with additional species introduced, namely boarfish, sprat, argentine and sardine. There was also a geographical change for mackerel and herring, where the SCIP now applies to Area IVA, referred to as the 'northern North Sea'. The encompassing objective of EFCA assistance to the Member State concerned is to ensure the uniform and effective implementation of the conservation and control measures applicable to stocks of anchovy, herring, mackerel, horse mackerel, blue whiting, boarfish, argentine, sprat and sardine in the Western Waters and northern North Sea SCIP areas.

The Western Waters JDP (WW JDP) has been operating since 2012 with the participation of Denmark, Germany, Estonia, Ireland, Spain, France, Latvia, Lithuania, the Netherlands, Poland, Portugal and the United Kingdom, which collaborate in the implementation of these conservation and control measures through the system of joint campaigns based on permanent year-round control and inspection activities.

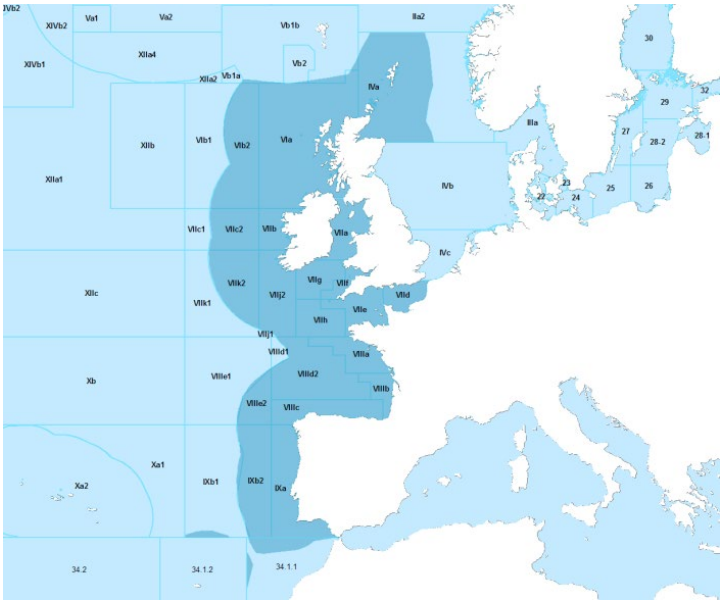


Figure 118 — *Western waters JDP area*

(e) **North Sea**

The EFCA coordinates the implementation of the SCIP that was established for fisheries exploiting cod, plaice and sole in the Kattegat, the North Sea, the Skagerrak, the Eastern Channel, the waters west of Scotland and the Irish Sea. The encompassing objective of EFCA assistance to the Member State concerned is to ensure the uniform and effective implementation of the conservation and control measures applicable to stocks of cod, plaice and sole in the North Sea SCIP area.

The North Sea JDP (NS JDP) has been operating since 2007 with the participation of Belgium, Denmark, Germany, Ireland, France, the Netherlands, Sweden and the United Kingdom, which collaborate in the implementation of these conservation and control measures through activities that are carried out each year and on a permanent basis in the framework of the North Sea joint campaigns.

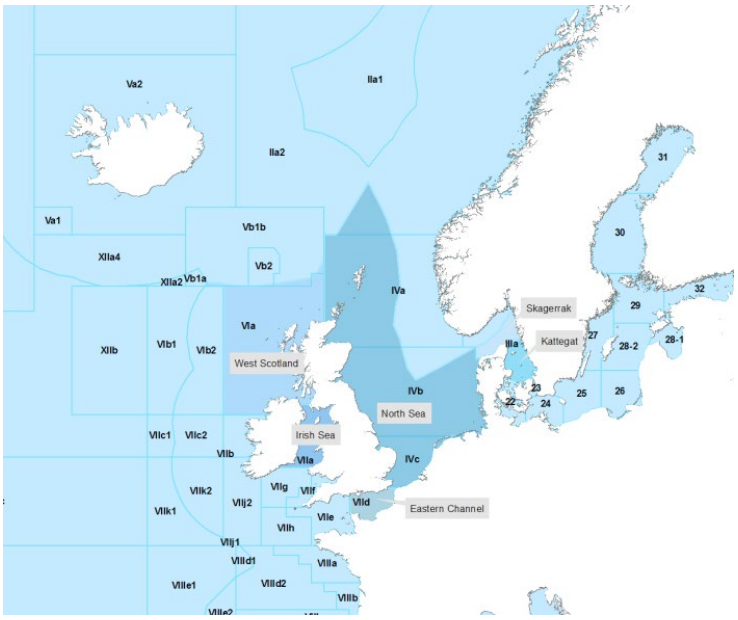


Figure 119 — *North Sea JDP area*

(f) **Mediterranean Sea**

The EFCA coordinates joint control, inspection and surveillance activities undertaken by Member States in order that they may comply with the objectives, priorities and target inspection benchmarks laid down in the SCIP for fisheries exploiting stocks of bluefin tuna in the eastern Atlantic and in the Mediterranean, swordfish in the Mediterranean and stocks of sardine and anchovy in the northern Adriatic Sea. The vehicle for this coordination is the Mediterranean JDP, 'MED'.

MED was adopted in May 2014 and has the active participation of Greece, Spain, France, Croatia, Italy, Cyprus, Malta, Portugal and Slovenia. Joint control and inspection activities conducted under the JDP are exhaustive and based on a risk assessment approach. They cover fishing and fishing-related activities including farming, weighing, processing, marketing, transport and storage of fisheries products and sport and recreational fisheries.

The EFCA strives towards the establishment and application of best practices, working closely in this regard with the Member States in all activities under the JDP. In the field, inspectors are exchanged between Member States both at sea and ashore in order to share experience and ensure uniform procedures and implementation. In addition, specific teams are mobilised on bluefin tuna farms during the caging activities and in periods of increased activities.

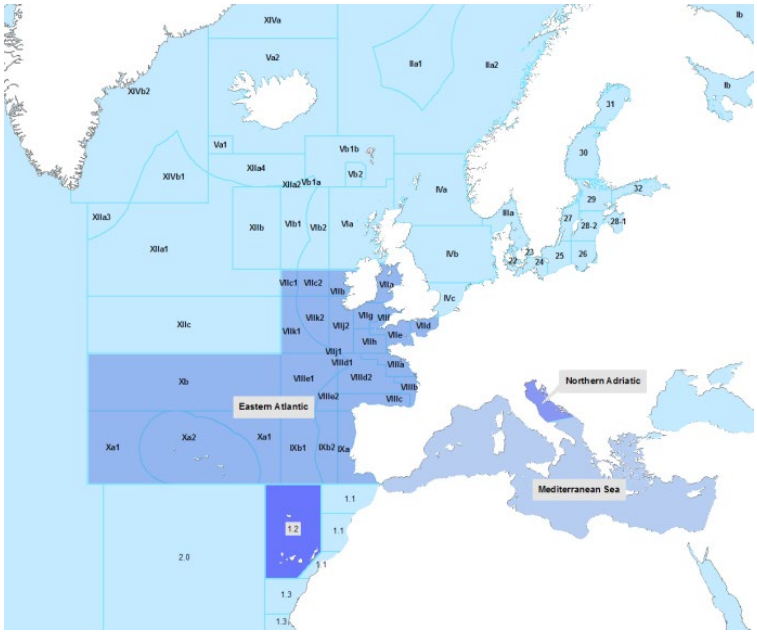


Figure 120 — *Mediterranean Sea JDP area*

(g) **Cooperation in International waters — RFMOs** ([713]) ([714]) ([715])

The EFCA oversees the implementation of the JDPs in close collaboration with the contact persons of the Member States concerned and, where appropriate, the secretariat of the relevant RFMOs. Union inspectors designated as an RFMO inspector must be issued with the identity card appropriate to that RFMO.

NAFO, NEAFC, the General Fisheries Commission for the Mediterranean and ICCAT inspection schemes all have provisions for inspection to be undertaken by suitably authorised inspectors. However, the powers granted to inspectors and in particular the rules to be followed during inspections vary between each RFMO. There are differing requirements regarding the use of force by inspectors, and the recording and reporting procedures also vary. Therefore, Union inspectors must ensure that before deploying to an RFMO they are familiar with the specific current rules regarding the role of inspectors and the conduct of inspections in that RFMO.

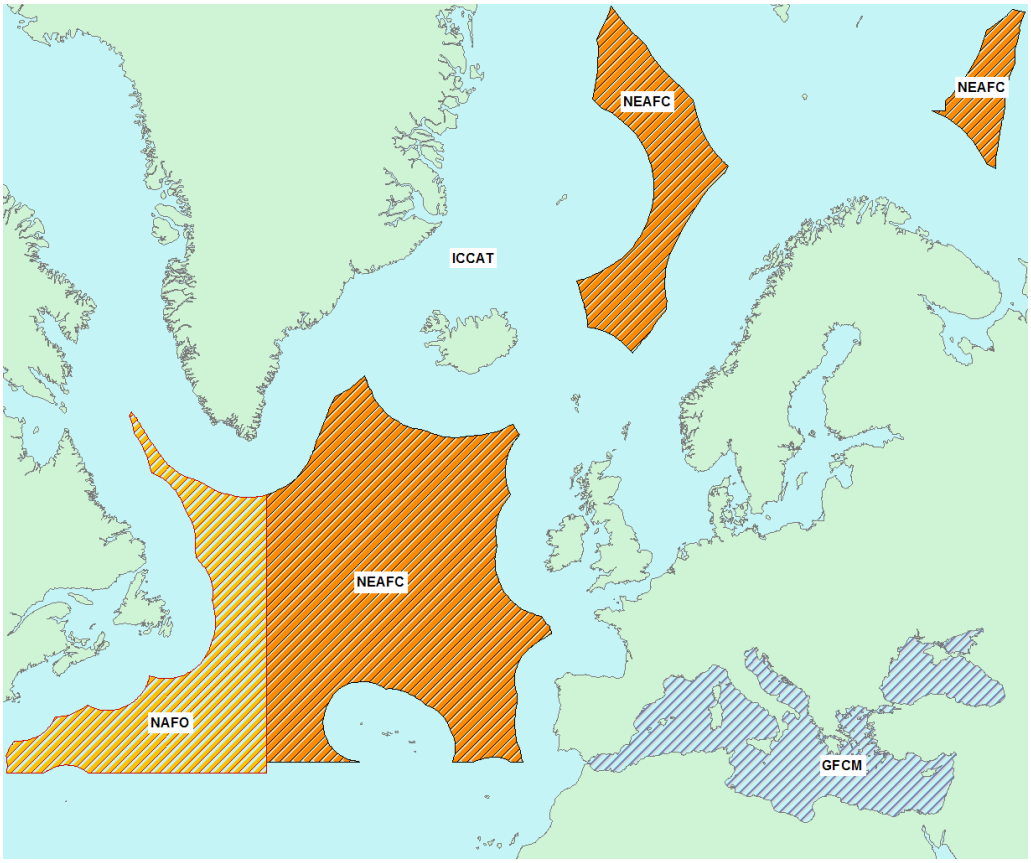


Figure 121 — *Cooperation in international waters*

Union inspectors may be faced with a number of differing situations dependent on the area of operations, the nationality of the fishing vessel to be inspected and the RFMO rules applicable.

([713]) Annex 8 of Part II of the conduct of inspections of ICCAT Recommendation 12-03.

([714]) Chapter VI of NAFO scheme of control and enforcement.

([715]) Chapter IV of Article 18 of the NEAFC scheme of control and enforcement.

Appendix 1: Bibliography

None

Appendix 2: Links and references

- Copies of regulations: http://eur-lex.europa.eu
- Member State websites (public and secure).
- Commission website: http://ec.europa.eu/fisheries/
- EFCA website: http://www.efca.europa.eu/

Appendix 3: Legislation

- Council Regulation (EC) No 768/2005 of 26 April 2005 establishing a Community Fisheries Control Agency and amending Regulation (EEC) No 2847/93 establishing a control system applicable to the common fisheries policy.
- Council Regulation (EC) No 1005/2008 of 29 September 2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing, amending Regulations (EEC) No 2847/93, (EC) No 1936/2001 and (EC) No 601/2004 and repealing Regulations (EC) No 1093/94 and (EC) No 1447/1999.
- Council Regulation (EC) No 1224/2009 of 20 November 2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy, amending Regulations (EC) No 847/96, (EC) No 2371/2002, (EC) No 811/2004, (EC) No 768/2005, (EC) No 2115/2005, (EC) No 2166/2005, (EC) No 388/2006, (EC) No 509/2007, (EC) No 676/2007, (EC) No 1098/2007, (EC) No 1300/2008, (EC) No 1342/2008 and repealing Regulations (EEC) No 2847/93, (EC) No 1627/94 and (EC) No 1966/2006.
- Commission Implementing Regulation (EU) No 404/2011 of 8 April 2011 laying down detailed rules for the implementation of Council Regulation (EC) No 1224/2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy.
- Commission Implementing Decision of 19 December 2012 establishing a SCIP for pelagic fisheries in Western Waters of the north-east Atlantic (2012/807/EU) as amended by Commission Implementing Decision (EU) 2015/1944.
- Commission Implementing Decision of 21 June 2013 establishing a SCIP for fisheries exploiting cod, herring, salmon and sprat in the Baltic Sea (2013/305/EU).
- Commission Implementing Decision of 25 June 2013 establishing a SCIP for fisheries exploiting cod, plaice and sole in the Kattegat, the North Sea, the Skagerrak, the Eastern Channel, the waters west of Scotland and the Irish Sea (2013/328/EU).
- Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the common fisheries policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC.
- Commission Implementing Decision of 19 March 2014 establishing a SCIP for fisheries exploiting stocks of bluefin tuna in the eastern Atlantic and the Mediterranean, swordfish in the Mediterranean and for fisheries exploiting stocks of sardine and anchovy in the northern Adriatic Sea (2014/156/EU).

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