



**NORTH-EAST ATLANTIC
FISHERIES COMMISSION**

Managing Fisheries in the North-East Atlantic

18 November 2020

TO:
President
Vice President
Heads of Delegation
All Contracting Parties

Reference: HOD 20/40

**NOTIFICATION OF RECOMMENDATIONS ADOPTED AT THE THIRTY-NINTH ANNUAL MEETING
OF NEAFC, 10-13 NOVEMBER 2020**

I am writing to formally notify you, in accordance with Article 11 of the Convention, of the recommendations adopted at the 39th Annual Meeting of NEAFC held 10-13 November 2020.

These recommendations are:

- Recommendation 1: Recommendation on management measures for the protection of the shallow pelagic redfish stock and the deep pelagic redfish stock in the Irminger Sea and adjacent waters in 2021*
- Recommendation 2: Recommendation on Conservation and Management Measures for Blue Whiting in the NEAFC Regulatory Area for 2021*
- Recommendation 3: Recommendation on Conservation and Management Measures for Norwegian Spring Spawning (Atlanto-Scandian) Herring in the NEAFC Regulatory Area for 2021*
- Recommendation 4: Recommendation on Conservation and Management Measures for Rockall Haddock in the NEAFC Regulatory Area (ICES 6b) for 2021*
- Recommendation 5: Recommendation on the Conservation and Management of Roundnose Grenadier (*Coryphaenoides rupestris*), Roughhead Grenadier (*Macrourus berglax*), and Roughsnout Grenadier (*Trachyrinchus scabrus*) and other Grenadiers (*Macrouridae*) in the NEAFC Regulatory Area (Divisions 10.b and 12.c, and Subdivisions 12.a.1 and 14.b.1) for 2021*

- Recommendation 6: Recommendation on the Conservation and Management of Roundnose Grenadier (Coryphaenoides rupestris), Roughhead Grenadier (Macrourus berglax), and Roughsnout Grenadier (Trachyrinchus scabrus) and other Grenadiers (Macrouridae) in the NEAFC Regulatory Area on Hatton Bank and Rockall (ICES Subdivisions 6.b.1 and 7.c.1 and 7.k.1, and Subdivisions 5.b.1.a and Division 12.b) for 2021*
- Recommendation 7: Recommendation on Regulatory Measures for the Protection of Blue Ling in the NEAFC Regulatory Area (ICES Division XIV) from 2021 to 2023*
- Recommendation 8: Recommendation on Conservation and Management Measures for Picked Dogfish / Spurdog (Squalus Acanthias) in the NEAFC Regulatory Area for 2021 and 2022*
- Recommendation 9: Recommendation on Conservation and Management Measures for Orange Roughy in the NEAFC Regulatory Area from 2021 to 2024*
- Recommendation 10: Recommendation to amend Recommendation 19:2014 on the Protection of Vulnerable Marine Ecosystems in the NEAFC Regulatory Area, as amended*
- Recommendation 11: Recommendation to amend the requirements in the NEAFC Scheme relating to co-operating non-Contracting Party status*
- Recommendation 12 : Recommendation to amend the NEAFC Scheme of Control and Enforcement to add code to Appendix 1b) to Annex IV*
- Recommendation 13 : Recommendation on Annexes XVa and XVb of the NEAFC Scheme of Control and Enforcement*
- Recommendation 14: Amendment to Recommendation 20:2020 on introducing the ERS Implementation document in Annex IX of the Scheme (FLUX Fishing Activities)*
- Recommendation 15: Amendment to Recommendation 21:2020 on introducing the ERS Implementation document in Annex IX of the Scheme (FLUX Vessel Position)*
- Recommendation 16 Recommendation to Adopt Version 2 of the NEAFC Flux Fishing Activities ERS Implementation Document*
- Recommendation 17 : Recommendation to amend Recommendation 2:2011, to remove the species mackerel, blue whiting and horse mackerel with stock code XXX from Annex IV – Species List in Recommendation 2:2011 Monthly Statistics (as amended by Recommendations 13:2016, 17:2015, 14:2013 and 23:2020)*
- Recommendation 18 : Recommendation on marine pollution by garbage*
- Recommendation 19 Recommendation to amend the Rules of Procedure on observers*

The texts of these recommendations are attached to this letter.

Please regard the date of this letter, 18 November 2020, as the formal notification date for the attached recommendations pursuant to Article 11 of the Convention.

Article 12 of the Convention lays down the arrangements by which recommendations enter into force and also the time periods within which, and under what circumstances, Contracting Parties may object to recommendations.

In accordance with Article 12(4), I will notify Contracting Parties immediately if an objection to any recommendation is received, and will confirm the dates of entry into force, which are of course dependent on whether objection procedures are invoked.

Finally, I should like to remind you that Article 15 of the Convention obliges Contracting Parties to take whatever steps are necessary to give effect to NEAFC recommendations, once these have become binding on Contracting Parties.

Yours sincerely

A handwritten signature in black ink that reads "Darius Campbell". The signature is written in a cursive, slightly slanted style.

Darius Campbell
Secretary of NEAFC

Recommendation on management measures for the protection of the shallow pelagic redfish stock and the deep pelagic redfish stock in the Irminger Sea and adjacent waters in 2021

The Commission hereby adopts the following Recommendation pursuant to Article 5 of the Convention:

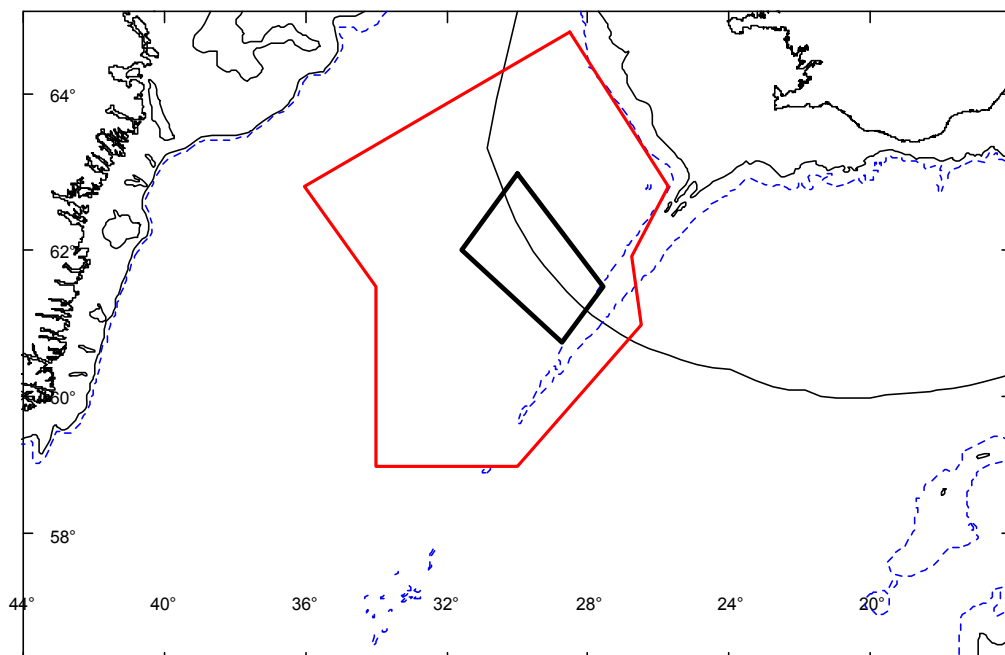
Taking note of the scientific advice from ICES for shallow pelagic redfish and deep pelagic redfish in the Irminger Sea and adjacent waters for zero catch in each of the years 2020 and 2021;

Taking note of the aggregation of the redfish during the fishing season;

The Commission hereby adopts the following recommendation pursuant to Article 5 and 6 of the Convention:

1. There shall be no directed fisheries neither for the shallow pelagic redfish stock nor the deep pelagic redfish stock in the Irminger Sea and adjacent waters in 2021;
2. In order to minimise bycatch of the deep pelagic redfish stock, all fishing activities are prohibited in 2020 and 2021 in the area bounded by following co-ordinates:

	LAT	LON	lat	lon
1	63°00.00	-30°00.00	63.00	-30.00
2	61°30.00	-27°35.00	61.50	-27.58
3	60°45.00	-28°45.00	60.75	-28.75
4	62°00.00	-31°35.00	62.00	-31.58
5	63°00.00	-30°00.00	63.00	-30.00



Recommendation 01 : 2021

Figure showing the proposed box (black) as well as delimitation of defined management area for deep pelagic redfish (red).

Recommendation 02 : 2021

**Recommendation on Conservation and Management Measures for Blue Whiting
in the NEAFC Regulatory Area for 2021**

The Commission hereby adopts the following Recommendation pursuant to Article 5 of the Convention:

1. NEAFC notes that, as Coastal States to the management of the blue whiting stock, the European Union, the Faroe Islands, Iceland, Norway and the United Kingdom have agreed that the level of total catches of blue whiting in 2021 in the North-East Atlantic should be no more than 929,292 tonnes, based on the long-term management strategy and corresponding to FMSY as advised by ICES.
2. The Coastal States will establish their individual quotas for 2021 within the framework of the total catch limitation referred to in paragraph 1.
3. The individual Coastal State quotas may be fished within their respective zones of fisheries jurisdiction as well as in the Regulatory Area.
4. Catches taken by Coastal States in the Regulatory Area shall be deducted from the respective individual quotas of those Coastal States.
5. Within the total level of catches referred to in paragraph 1 above, the Contracting Parties hereby establish an allowable catch limitation of 73,961 tonnes of blue whiting for 2021 in the Regulatory Area, which is allocated as follows:
 - a. Denmark in respect of Greenland 5,032 tonnes;
 - b. Russian Federation 68,929 tonnes.
6. Each Contracting Party shall notify the measures it has taken for 2021 to the Secretary by 1 May 2021. The Secretary shall notify these measures to the other Contracting Parties.
7. Each Contracting Party may transfer unutilised quantities of up to 10% of the quota established by the Party for 2020 to the quota established by that Party for 2021. Such transfer shall be in addition to the quota established by the Party concerned for 2021.

In the event of overfishing of quotas by any Contracting Party in 2020, the quantity overfished shall be deducted from the quota for that Party or those Parties for 2021.

Recommendation 02 : 2021

8. Each Contracting Party may transfer unutilised quantities of up to 10% of the quota established by the Party for 2021 to the quota established by that Party for 2022. Such transfer shall be in addition to the quota established by the Party concerned for 2022.

In the event of overfishing of quotas by any Contracting Party in 2021, the quantity overfished shall be deducted from the quota for that Party or those Parties for 2022.

9. Only those vessels entitled to fly the flag of a NEAFC Contracting Party, having been authorised by its flag State to fish for blue whiting in the NEAFC Regulatory Area in 2021, may take part in the fishery.
10. These conservation and management measures are taken without prejudice to any future conservation and management measures to be taken for the blue whiting stock in the North-East Atlantic.

Recommendation on Conservation and Management Measures for Norwegian Spring Spawning (Atlanto-Scandian) Herring in the NEAFC Regulatory Area for 2021

The Commission hereby adopts the following Recommendation pursuant to Article 5 of the Convention:

1. NEAFC notes that the European Union, the Faroe Islands, Iceland, Norway, the Russian Federation and the United Kingdom have agreed that the level of total catches of Norwegian Spring-Spawning (Atlanto-Scandian) herring in 2021 should be no more than 651,033 tonnes, based on the long-term management strategy and as advised by ICES.
2. Each Contracting Party shall establish conservation and management measures for its Norwegian Spring-Spawning (Atlanto-Scandian) herring fishery in the NEAFC Regulatory Area for 2021.
3. Conservation and management measures shall include catch limits.
4. Only vessels entitled to fly the flag of a NEAFC Contracting Party, having been authorised by its flag State to fish for Norwegian Spring-Spawning (Atlanto-Scandian) herring in the NEAFC Regulatory Area, may take part in the fishery.
5. Each Contracting Party shall notify the conservation and management measures it has taken to the Secretary by 1 March 2021. The Secretary shall without delay notify these measures to the other Contracting Parties.
6. These conservation and management measures shall be without prejudice to any future conservation and management measures to be taken for Norwegian Spring-Spawning (Atlanto-Scandian) herring in the North-East Atlantic.

Recommendation 04 : 2021

**Recommendation on Conservation and Management Measures for Rockall Haddock
in the NEAFC Regulatory Area (ICES 6b) for 2021**

The Commission hereby adopts the following Recommendation pursuant to Article 5 of the Convention:

All fishing, except with long-lines, shall be prohibited in waters beyond the areas under national fisheries jurisdiction of the Contracting Parties in the box bounded by the following coordinates, which shall be measured according to the WGS84 system:

- 57° 00' N, 15° 00' W
- 57° 00' N, 14° 00' W
- 56° 30' N, 14° 00' W
- 56° 30' N, 15° 00' W

This measure shall be in force for the period 1 January to 31 December 2021.

Recommendation on the Conservation and Management of Roundnose Grenadier (*Coryphaenoides rupestris*), Roughhead Grenadier (*Macrourus berglax*), and Roughsnout Grenadier (*Trachyrinchus scabrus*) and other Grenadiers (Macrouridae) in the NEAFC Regulatory Area (Divisions 10.b and 12.c, and Subdivisions 12.a.1 and 14.b.1) for 2021

The Commission hereby adopts the following recommendation pursuant to Article 5 of the Convention:

1. A total allowable catch limitation of 574 tonnes of roundnose grenadier is established.
2. No direct fisheries for roughhead grenadier and roughsnout grenadier should be authorised, and bycatches of these grenadiers as well as other grenadiers (Macrouridae) should be counted against the total allowable catch of roundnose grenadier specified in Point 1.
3. Contracting Parties shall submit all data on the relevant fishery to ICES, including catches, bycatches, discards and activity information. Catches should be reported by species. Unidentified grenadiers should be recorded as Macrouridae.

Recommendation on the Conservation and Management of Roundnose Grenadier (*Coryphaenoides rupestris*), Roughhead Grenadier (*Macrourus berglax*), and Roughsnout Grenadier (*Trachyrinchus scabrus*) and other Grenadiers (Macrouridae) in the NEAFC Regulatory Area on Hatton Bank and Rockall (ICES Subdivisions 6.b.1 and 7.c.1 and 7.k.1, and Subdivisions 5.b.1.a and Division 12.b) for 2021

The Commission hereby adopts the following recommendation pursuant to Article 5 of the Convention:

1. A total allowable catch limitation of 2 620 tonnes roundnose grenadier is established.
2. No direct fisheries for roughhead grenadier and roughsnout grenadier should be authorised, and bycatches of these grenadiers as well as other grenadiers (Macrouridae) should be counted against the total allowable catch of roundnose grenadier as specified in Point 1.
3. Contracting Parties shall submit all data on the relevant fishery to ICES, including species-specific catches, bycatches, discards and activity information.

**Recommendation on Regulatory Measures for the Protection of Blue Ling in the NEAFC
Regulatory Area (ICES Division XIV) from 2021 to 2023**

As proposed by the Permanent Committee on Management and Science, the Commission (PECMAS) hereby adopts the following recommendation pursuant to Article 5 and Article 6 of the Convention:

1. All fishing with bottom contacting gear (bottom trawl, longline and gillnet) is prohibited in the period 15 February to 15 April in the area bounded by following co-ordinates, which shall be measured according to the WGS84 system:

1. 60°58.76' N - 27°27.32' W
2. 60°56.02' N - 27°31.16' W
3. 60°59.76' N - 27°43.48' W
4. 61°03.00' N - 27°39.41' W

2. This measure shall be in force for the period 1 January 2021 to 31 December 2023.

**Recommendation on Conservation and Management Measures for Picked Dogfish /
Spurdog (*Squalus acanthias*) in the NEAFC Regulatory Area for 2021 and 2022**

The Commission hereby adopts the following Recommendation pursuant to Article 5 of the Convention:

Taking into account the ICES advice that there should be no targeted fisheries of this stock:

1. Each Contracting Party shall, for 2021 and 2022, prohibit all targeted fishing of picked dogfish / spurdog (*Squalus acanthias*) in the Regulatory Area by vessels flying its flag;
2. Any incidental catches of this resource shall be promptly released unharmed, to the extent possible.
3. Contracting Parties shall submit to ICES all available data on picked dogfish / spurdog, including data on discarding, for further evaluation of the state of the resource.
4. Contracting Parties are encouraged to take conservation measures with equal effect within waters under their national fisheries jurisdiction.

Recommendation 09 : 2021

Recommendation on Conservation and Management Measures for Orange Roughy in the NEAFC Regulatory Area from 2021 to 2024

The Commission hereby adopts the following Recommendation pursuant to Article 5 of the Convention:

Considering the poor status of the stock of Orange roughy (*Hoplostethus atlanticus*) in the North-East Atlantic;

Noting that ICES advice is for a zero catches for 2021-2024.

1. Each Contracting Party shall, for the period from 2021 to 2024, prohibit all directed fishing of Orange roughy (*Hoplostethus atlanticus*) in the Regulatory Area by vessels flying its flag.
2. Each Contracting Party shall take measures to minimise by-catches of Orange roughy in other fisheries.
3. Contracting Parties shall submit all data on Orange roughy available to ICES for further evaluation of the state of the stock.
4. Contracting Parties are encouraged to take conservation measures with equal effect within waters under their national jurisdiction.
5. This measure shall be in force until 31 December 2024.

Recommendation 10 : 2021

Recommendation to amend Recommendation 19:2014 on the Protection of Vulnerable Marine Ecosystems in the NEAFC Regulatory Area, as amended.

As proposed by the Permanent Committee on Management and Science (PECMAS), the Commission hereby adopts the following recommendation pursuant to Articles 5, 6 and 7 of the Convention:

Recommendation 19:2014, as amended, shall be further amended to read as follows (amendments are shown in track changes):

Recommendation 19 : 2014

Recommendation to amend Recommendation 19 : 2014 on [area management measures for the protection of vulnerable marine ecosystems in the NEAFC Regulatory Area, as amended](#)

Article 1

Objective of the Recommendation

1. The objective of this Recommendation is to ensure the implementation by NEAFC of effective measures to prevent significant adverse impacts of bottom fishing ~~activities~~ on vulnerable marine ecosystems known to occur or likely to occur in the NEAFC Regulatory Area based on the best available scientific information provided or endorsed by the International Council for the Exploration of the Sea (ICES).
2. This Recommendation takes into account NEAFC's responsibility as a regional fisheries management organisation to adopt measures in the Regulatory Area in regard to bottom fishing ~~activities~~, in order to contribute to the key objectives of the UN General Assembly Resolutions on the protection of vulnerable marine ecosystems and to ensure the long-term sustainability of deep sea fish stocks and non-target species; the rebuilding of depleted stocks and, where scientific information is uncertain, unreliable, or inadequate, conservation and management measures established consistent with the precautionary approach.
3. This Recommendation shall be without prejudice to any sovereign rights of coastal States over the continental shelf in accordance with the UN Convention on the Law of the Sea for the purpose of exploring and exploiting its natural resources, including living organisms belonging to sedentary species, such as vulnerable marine ecosystems.

Recommendation 10 : 2021

4. For the purpose of this Recommendation, NEAFC will take into account the guidance provided by the FAO in the framework of the Code of Conduct for Responsible Fisheries and any other internationally agreed standards, as appropriate.

Article 2 Use of terms

For the purpose of this Recommendation:

~~(a)~~ (a) "bottom fishing **activities**" means the use of fishing gear that is likely to contact the seafloor during the normal course of fishing operations;

~~(a)(b)~~ (b) "closed areas" means areas closed to bottom fishing as set out in Article 5;

~~(b)(c)~~ (c) "encounter" means catch of vulnerable marine ecosystem indicator species above threshold levels set out in Article 9;

~~(e)(d)~~ (d) "existing bottom fishing areas" means the portion of the Regulatory Area where bottom fishing has historically occurred as set out in Article 4;

~~(d)(e)~~ (e) "exploratory bottom fishing" means all commercial bottom fishing **activities** within outside area closures and existing restricted bottom fishing areas, or if there are significant changes to the conduct and technology of bottom fishing **activities** within existing bottom fishing areas;

~~(e)(f)~~ (f) "restricted bottom fishing areas" means areas outside closed areas and existing bottom fishing areas;

~~(f)(g)~~ (g) "significant adverse impacts" has the same meaning and characteristics as those described in paragraphs 17-20 of the FAO International Guidelines for the Management of Deep-Sea Fisheries in the High Seas;

~~(g)(h)~~ (h) "VME indicators" are those included in Annex 5; and

~~(h)(i)~~ (i) "vulnerable marine ecosystems", hereafter VMEs, has the same meaning and characteristics as those contained in paragraphs 42 and 43 of the FAO International Guidelines for the Management of Deep-Sea Fisheries in the High Seas.

Article 3 Regulation of bottom fishing **activities**

The Commission shall, taking account of the advice provided by ICES, and that provided pursuant to Article 7.3, as well as data and information arising from reports pursuant to Article 8 adopt

Recommendation 10 : 2021

conservation and management measures to prevent significant adverse impacts on VMEs. Such measures may include:

- (a) allowing, prohibiting or restricting bottom fishing **activities**;
- (b) requiring specific mitigation measures for bottom fishing **activities**;
- (c) allowing, prohibiting or restricting bottom fishing **activities** with certain gear types, or changes in gear design and/or deployment; and/or
- (d) any other relevant requirements or restrictions to prevent significant adverse impacts on VMEs.

Article 4 **Existing bottom fishing areas**

Based on information concerning bottom fishing ~~activities~~ in the period 1987-2007, there are hereby established existing bottom fishing areas as set out in Annex 1. The Secretary shall update Annex 1 following decisions by the Commission pursuant to Articles 5.3 and 6.8.

Article 5 **Area closures for the protection of VMEs**

1. Area closures for the protection of VMEs in the Regulatory Area shall be based on advice by ICES and on the procedures set out in recommendations regulating fishing **activities** in the Regulatory Area.
2. Bottom fishing ~~activities~~ shall be prohibited in the following areas, within the coordinates as defined in Annex 2:
 - (a) Northern MAR Area;
 - (b) Middle MAR Area (Charlie-Gibbs Fracture Zone and sub-Polar Frontal Region);
 - (c) Southern MAR Area;
 - (d) Altair Seamount;
 - (e) Antialtair Seamount;
 - (f) Hatton Bank 1;

Recommendation 10 : 2021

- (g) Rockall Bank;
- (h) Logachev Mounds;
- (i) West Rockall Mounds;
- (j) Edora's bank;

- (k) Southwest Rockall Bank;
- (l) Hatton-Rockall Basin; and
- (m) Hatton Bank 2.

3. If ICES advises that there are sub-areas where significant adverse impacts on VMEs are not considered likely within the areas referred to in paragraph 2 of this Article, the Recommendation may be amended by the Commission to exclude those sub-areas from the prohibition under paragraph 2.

4. Within ~~the areas defined in paragraph 2~~ closed areas and/or restricted bottom fishing areas Contracting Parties intending to conduct scientific investigations, which shall exclude exploratory bottom fishing pursuant to Article 6, shall notify the Secretary of their intended research programmes, taking account of Article 206 of the 1982 UN Convention on the Law of the Sea. The Secretary shall forward such notifications to all Contracting Parties as well as to PECMAS.

5. Contracting Parties shall ensure that any such proposed investigations shall be assessed to see whether they would have significant adverse impacts on VMEs.

Article 6 **Exploratory bottom fishing**

1. Prior to proposing to undertake exploratory bottom fishing, Contracting Parties shall gather relevant data to facilitate assessments of exploratory bottom fishing by the Permanent Committee on Management and Science (PECMAS) and ICES. Such data should preferably include data from sea-bed mapping programmes, i.e. data from echo-sounders, if practicable multi-beam sounders, and/or other data relevant to the preliminary assessment of the risk of significant adverse impacts on VMEs.

2. The relevant Contracting Party shall forward to the Secretary a Notice of Intent to undertake exploratory bottom fishing at least six months prior to the proposed start of the fishing. The Notice of Intent shall be accompanied by the following information:

Recommendation 10 : 2021

- (a) harvesting plan, which outlines target species, proposed dates and areas and the type of bottom fishing gear to be used. Area and effort restrictions shall be considered to ensure that fishing occurs on a gradual basis in a limited geographical area;
- (b) mitigation plan, including measures to prevent significant adverse impact to VMEs that may be encountered during the fishery;
- (c) catch monitoring plan, including recording/reporting of all species caught;
- (d) a sufficient system for recording/reporting of catch, detailed to conduct an assessment of activity, if required;
- (e) fine-scale data collection plan on the distribution of intended tows and sets, to the extent practicable on a tow-by-tow and set-by-set basis;
- (e) data collection plan to facilitate the identification of VMEs in the area fished;
- (f) plans for monitoring of bottom fishing **activities** using gear monitoring technology, including cameras if practicable; and
- (g) monitoring data obtained pursuant to paragraph 1 of this Article.

3. The Notice of Intent, along with the accompanying information, shall be forwarded by the Secretary to all Contracting Parties as well as to PECMAS for review. The relevant Contracting Party shall also provide an assessment of the proposed exploratory bottom fishing in accordance with Article 7 of this Recommendation.

4. Exploratory bottom fishing shall only commence after having been assessed by PECMAS and approved by the Commission.

5. Preference shall be given by the relevant Contracting Party to exploratory bottom fishing using fishing gear and methods with the least bottom contact, in well-mapped areas and at times when impacts are likely to have the least adverse impacts on organisms other than the target species.

6. The relevant Contracting Party shall ensure that vessels flying its flag and conducting exploratory bottom fishing have a scientific observer on board. Observers shall collect data in accordance with the VME Data Collection Protocol as set out in Annex 3.

7. The relevant Contracting Party shall provide a report of the results of such activities to the Secretary for circulation to ICES and to all other Contracting Parties. It shall ensure that the data, which derives from exploratory bottom fishing, will be made available to ICES.

8. The Commission shall review the assessments undertaken in accordance with Article 7 and the results of the fishing protocols implemented by the participating fleets. The Commission may decide to authorise new bottom fishing **activities** based upon the results of exploratory bottom fishing conducted in the previous two years. Areas where such new bottom fishing **activities** are authorised shall be defined as “existing bottom fishing areas” pursuant to Article 4.

Article 7

Assessment of proposed exploratory bottom fishing **activities**

1. Each Contracting Party proposing to undertake exploratory bottom fishing in the Regulatory Area shall submit to the Secretary, in addition to the Notice of Intent, a preliminary assessment of the known and anticipated impacts of the proposed bottom fishing **activity** as described in Annex 4.

2. The Secretary shall promptly forward the assessment to all Contracting Parties and to PECMAS. The elaboration of the assessment shall be carried out in accordance with guidance developed by ICES, or, in the absence of such guidance, to the best of the ability of the Contracting Party concerned.

3. PECMAS shall, either at its next session or through correspondence, undertake an evaluation, in accordance with the precautionary approach, of the submitted documentation, taking account of the risks of significant adverse impact on VMEs. Such evaluation shall take place no later than three months following the date of submission of the Notice of Intent. It shall be undertaken according to procedures and standards developed by PECMAS, which shall use any other information required, including information from other fisheries in the region or similar fisheries elsewhere and, in particular, any advice provided by ICES.

4. PECMAS shall subsequently provide advice to the Commission as to whether the proposed exploratory bottom fishing should be approved, or would have significant adverse impacts on VMEs and, if so, on the mitigation measures to prevent such impacts. The Commission shall, within 30 days of receiving this advice, either give or withhold its approval for the proposed bottom fishing **activities**.

Article 8

Encounters with possible VMEs

1. Each Contracting Party shall ensure that fishing vessels flying its flag abide by the following rules, where, in the course of bottom fishing **activities**, evidence of VMEs is encountered:

(a) fishing vessels shall quantify catch of VME indicators;

Recommendation 10 : 2021

(b) if the quantity of VME indicators caught in a fishing operation (such as trawl tow or set of a gillnet or longline) is beyond the thresholds defined in Article 9, the following shall apply:

- (i) if an encounter is discovered in connection with the hauling of a trawl gear, the fishing vessel shall cease fishing and move out of an area defined as a 2 nautical mile wide band (polygon) on both sides of the “track” of the trawl haul during which an encounter occurred. The “track” is defined as the line joining consecutive VMS positions, supplemented by more exact information, between the start and the end of the tow, extended by 2 nautical miles at both ends;
- (ii) if an encounter is discovered in connection with other bottom fishing gears the fishing vessel shall cease fishing and move away at least 2 nautical miles from the position that the evidence suggests is closest to the exact encounter location. The master shall use his or her best judgment based on all available sources of information; and
- (iii) the master shall report the incident, including the “track” or position determined under sub-paragraphs (i) and (ii), without delay to its flag state, which shall forward the information to the Secretary immediately. Contracting Parties may if they so wish also require their vessels to report the incident directly to the Secretary.

2. The Secretary shall immediately inform all Contracting Parties, and ICES, and archive the information received pursuant to paragraph 1, and shall at the same time implement a temporary closure in the areas identified in paragraph 1.b of this Article.

3. In order to assess accurately the position and the extent of the VME encountered in terms of paragraph 1 of this Article, sea bed mapping, preferably, should be carried out using echosounders, and if practicable multi-beam sounders. The result of any mapping shall be submitted to ICES for its evaluation and advice. This advice shall be forwarded to PECMAS prior to any eventual decision taken by the Commission to reopen such areas.

4. PECMAS shall examine the temporary closure, and any relevant ICES advice, at its next meeting or by correspondence. If, on the basis of assessment by ICES, PECMAS advises that the area has or is likely to have a VME, the Secretary shall request Contracting Parties to maintain the temporary closure until such time that the Commission has acted upon the advice from PECMAS. If the PECMAS evaluation does not conclude that the temporary closed area has or is likely to have a VME, the Secretary shall inform Contracting Parties which may re-open the area to their fishing vessels.

Article 9 Threshold levels

An encounter with a possible VME is defined as:

Recommendation 10 : 2021

- (a) for a trawl tow, and other fishing gear than longlines: the presence of more than 30 kg of live coral and/or 400 kg of live sponge of VME indicators; and
- (b) for a longline set: the presence of VME indicators on 10 hooks per caught per 1000 hook segment or per 1200 m section of long line, whichever is the shorter.

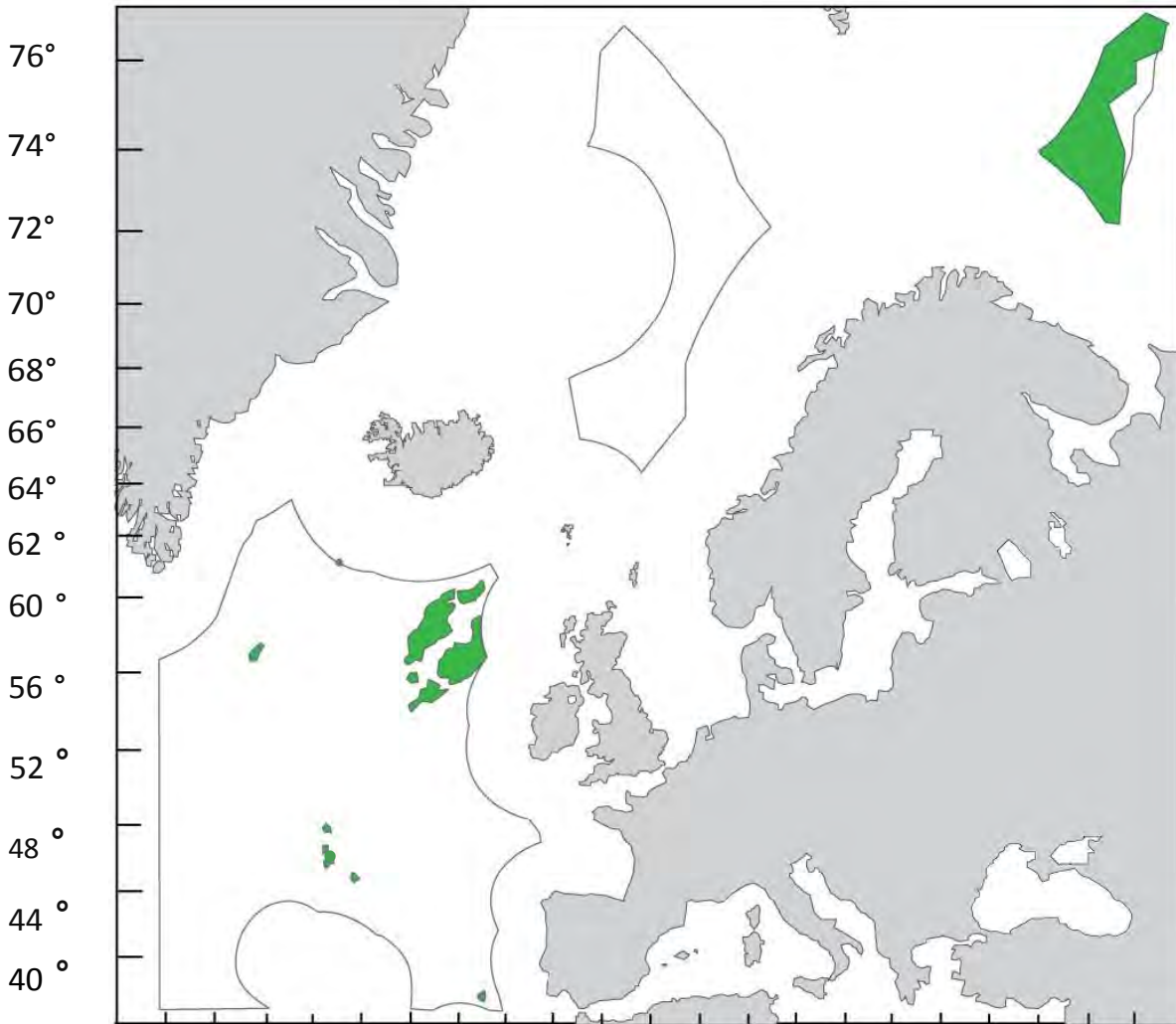
Article 10 Review

1. The Commission shall every 5 years from the date of this Recommendation entering into force examine the effectiveness of this Recommendation in protecting VMEs from significant adverse impacts. In addition, this review process shall be supplemented by modifications required as a result of new scientific advice.
2. Article 5.2 shall be in force until 31 December 2022. Before that time, the measure shall be reviewed by the Commission with the intention of extending the period that the article is in force, unless the conclusion of the review is that the continued application of the measure or parts of the measure is not required.

Article 11 Repeals

Recommendations 16:2008 (bottom fishing), PV:2009 (VMEs closed to bottom fishing), 13:2009 (bottom fishing), 11:2010 (bottom fishing), PV:2010 (existing and new bottom fishing areas), 15:2011 (bottom fishing), NA:2011 (consolidated text), 8:2013 (Hatton Rockall VME closures) and 9:2013 (Edora's Bank VME closure) are repealed.

Existing Bottom Fishing Areas



Recommendation 19 2014: Protection of VMEs in NEAFC Regulatory Areas as Amended by Recommendation 09:2015 (Annex 1)

Existing Fishing Area Coordinates

(Hatton Bank HAR 1 – 5; Josephine Seamount JOS 1; Mid-Atlantic MAR 1 – 5; Barents Sea BAR 1 and Reykjanes Ridge)

HAR 1				
	lat	lon	LAT	LON
1	60.0557	-14.2048	60°03.34	-14°12.29
2	59.6708	-14.0275	59°40.25	-14°01.65
3	59.5262	-14.2562	59°31.57	-14°15.37
4	59.3197	-14.6393	59°19.18	-14°38.36
5	59.2495	-14.8738	59°14.97	-14°52.43
6	59.1178	-14.9539	59°07.07	-14°57.23
7	59.0620	-15.7430	59°03.72	-15°44.58
8	58.9765	-15.9202	58°58.59	-15°55.21
9	59.0620	-16.3034	59°03.72	-16°18.20
10	59.2992	-16.5207	59°17.95	-16°31.24
11	59.6160	-16.5207	59°36.96	-16°31.24
12	59.6160	-15.4456	59°36.96	-15°26.74
13	59.8005	-14.8280	59°48.03	-14°49.68
14	60.0670	-14.3420	60°04.02	-14°20.52
15	60.0557	-14.2048	60°03.34	-14°12.29

HAR 2				
	lat	lon	LAT	LON
1	59.6998	-16.7094	59°41.99	-16°42.56
2	59.2496	-16.8066	59°14.97	-16°48.39
3	59.1530	-17.4699	59°09.18	-17°28.19
4	58.9913	-17.3384	58°59.48	-17°20.30
5	59.0884	-16.9552	59°05.30	-16°57.31
6	58.9618	-16.7094	58°57.71	-16°42.56
7	58.4600	-17.4584	58°27.60	-17°27.51
8	58.1897	-17.5156	58°11.38	-17°30.94
9	58.0901	-17.2297	58°05.41	-17°13.78
10	57.9720	-17.2412	57°58.32	-17°14.47
11	57.9144	-17.1039	57°54.86	-17°06.23
12	57.8292	-17.0925	57°49.75	-17°05.55
13	57.5511	-17.7844	57°33.07	-17°47.06
14	57.4928	-18.2075	57°29.57	-18°12.45
15	57.2955	-18.4935	57°17.73	-18°29.61
16	57.2151	-18.8194	57°12.91	-18°49.16
17	57.0662	-19.3512	57°03.97	-19°21.07
18	56.4992	-19.5399	56°29.95	-19°32.39
19	56.6127	-20.0202	56°36.76	-20°01.21

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20	56.3791	-20.4377	56°22.75	-20°26.26
21	56.3791	-20.6435	56°22.75	-20°38.61
22	56.4992	-20.8494	56°29.95	-20°50.96
23	56.6190	-20.8494	56°37.14	-20°50.96
24	56.8354	-20.4262	56°50.13	-20°25.57
25	57.2368	-20.5635	57°14.21	-20°33.81
26	57.5818	-20.5635	57°34.91	-20°33.81
27	57.8566	-20.1803	57°51.40	-20°10.82
28	57.9235	-19.8830	57°55.41	-19°52.98
29	58.4809	-19.2425	58°28.85	-19°14.55
30	58.6806	-19.2826	58°40.84	-19°16.95
31	58.9766	-18.9967	58°58.59	-18°59.80
32	59.2145	-18.2876	59°12.87	-18°17.26
33	59.2700	-17.9216	59°16.20	-17°55.30
34	59.5001	-17.6643	59°30.01	-17°39.86
35	59.6998	-16.7094	59°41.99	-16°42.56

HAR 3				
	lat	lon	LAT	LON
1	54.9406	-17.2011	54°56.44	-17°12.07
2	54.5810	-18.0303	54°34.86	-18°01.82
3	54.4083	-18.3962	54°24.50	-18°23.77
4	54.4781	-19.0538	54°28.69	-19°03.23
5	54.4150	-19.3112	54°24.90	-19°18.67
6	53.9767	-19.9516	53°58.60	-19°57.10
7	54.1847	-20.1289	54°11.08	-20°07.73
8	54.3350	-20.1003	54°20.10	-20°06.02
9	54.6373	-19.3912	54°38.24	-19°23.47
10	54.9800	-19.2540	54°58.80	-19°15.24
11	55.0685	-18.7393	55°04.11	-18°44.36
12	55.4303	-18.6822	55°25.82	-18°40.93
13	55.4076	-18.4134	55°24.46	-18°24.80
14	55.1438	-17.7730	55°08.63	-17°46.38
15	54.9505	-18.0303	54°57.03	-18°01.82
16	54.9800	-17.1325	54°58.80	-17°07.95
17	54.9406	-17.2011	54°56.44	-17°12.07

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HAR 4				
	lat	lon	LAT	LON
1	58.4869	-14.7537	58°29.21	-14°45.22
2	58.0659	-14.7766	58°03.96	-14°46.59
3	57.4928	-14.6851	57°29.57	-14°41.11
4	56.9385	-14.5479	56°56.31	-14°32.87
5	56.5812	-14.3020	56°34.87	-14°18.12
6	55.5696	-15.4571	55°34.18	-15°27.42
7	55.5146	-15.7887	55°30.88	-15°47.32
8	55.3914	-15.9488	55°23.48	-15°56.93
9	55.2116	-16.7523	55°12.69	-16°45.14
10	55.2884	-16.8972	55°17.30	-16°53.83
11	55.4329	-16.8667	55°25.98	-16°52.00
12	55.5223	-16.6862	55°31.34	-16°41.17
13	55.5081	-17.5842	55°30.49	-17°35.05
14	55.6858	-17.8416	55°41.15	-17°50.49
15	56.2935	-17.7901	56°17.61	-17°47.41
16	56.4992	-17.4756	56°29.95	-17°28.54
17	56.7509	-17.3955	56°45.05	-17°23.73
18	56.8948	-17.1325	56°53.69	-17°07.95
19	56.9167	-16.7780	56°55.00	-16°46.68
20	57.1904	-16.7094	57°11.42	-16°42.56
21	57.1532	-15.7887	57°09.19	-15°47.32
22	57.2708	-15.3942	57°16.25	-15°23.65
23	57.6188	-15.3054	57°37.13	-15°18.32
24	57.8415	-15.3104	57°50.49	-15°18.63
25	57.9537	-15.4859	57°57.22	-15°29.15
26	58.0668	-15.4376	58°04.01	-15°26.26
27	58.2131	-15.4859	58°12.79	-15°29.15
28	58.3882	-15.2392	58°23.29	-15°14.35
29	58.3628	-15.1350	58°21.77	-15°08.10
30	58.5018	-14.9024	58°30.11	-14°54.14
31	58.4869	-14.7537	58°29.21	-14°45.22

HAR 5				
	lat	lon	LAT	LON
1	55.8531	-19.9630	55°51.19	-19°57.78
2	55.4368	-19.7457	55°26.21	-19°44.74
3	55.3361	-20.2375	55°20.17	-20°14.25
4	55.4855	-20.7236	55°29.13	-20°43.41
5	55.7856	-20.4548	55°47.14	-20°27.29
6	55.8531	-19.9630	55°51.19	-19°57.78

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JOS 1				
	Lat	lon	LAT	LON
1	37.0621	-14.1703	37°03.73	-14°10.22
2	36.7150	-14.1044	36°42.90	-14°06.26
3	36.5521	-14.1854	36°33.12	-14°11.13
4	36.5622	-14.2668	36°33.73	-14°16.01
5	36.7029	-14.5385	36°42.17	-14°32.31
6	36.8795	-14.5560	36°52.77	-14°33.36
7	37.0560	-14.2415	37°03.36	-14°14.49
8	37.0621	-14.1703	37°03.73	-14°10.22

MAR 1				
	Lat	lon	LAT	LON
1	57.1717	-33.3419	57°10.30	-33°20.51
2	57.0976	-33.1241	57°05.85	-33°07.45
3	56.7293	-33.4885	56°43.76	-33°29.31
4	56.4943	-33.5696	56°29.66	-33°34.18
5	56.3731	-34.0165	56°22.39	-34°00.99
6	56.5289	-34.2443	56°31.73	-34°14.66
7	56.7449	-34.1446	56°44.69	-34°08.68
8	57.1517	-33.5070	57°09.10	-33°30.42
9	57.1717	-33.3419	57°10.30	-33°20.51

MAR 2				
	Lat	lon	LAT	LON
1	44.7495	-25.2187	44°44.97	-25°13.12
2	44.4873	-24.9684	44°29.24	-24°58.10
3	44.3749	-25.2867	44°22.50	-25°17.20
4	44.5689	-25.4261	44°34.13	-25°25.57
5	44.7977	-25.3331	44°47.86	-25°19.99
6	44.7495	-25.2187	44°44.97	-25°13.12

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MAR 3				
	Lat	lon	LAT	LON
1	45.6840	-27.2571	45°41.04	-27°15.42
2	45.4763	-27.1426	45°28.58	-27°08.56
3	45.4286	-27.4180	45°25.72	-27°25.08
4	45.2023	-27.6218	45°12.14	-27°37.31
5	45.1872	-27.7613	45°11.23	-27°45.68
6	45.4913	-27.8757	45°29.48	-27°52.54
7	45.6690	-27.6683	45°40.14	-27°40.10
8	45.6690	-27.2571	45°40.14	-27°15.42
9	45.6840	-27.2571	45°41.04	-27°15.42

MAR 4				
	lat	lon	LAT	LON
1	46.3844	-27.6218	46°23.06	-27°37.31
2	46.0528	-27.6469	46°03.17	-27°38.81
3	46.0528	-27.9186	46°03.17	-27°55.12
4	46.3992	-27.9186	46°23.95	-27°55.12
5	46.3992	-27.6683	46°23.95	-27°40.10
6	46.3844	-27.6218	46°23.06	-27°37.31

MAR 5				
	lat	lon	LAT	LON
1	47.5556	-27.4395	47°33.34	-27°26.37
2	47.2919	-27.3036	47°17.51	-27°18.21
3	47.2919	-27.8042	47°17.51	-27°48.25
4	47.4638	-27.9437	47°27.83	-27°56.62
5	47.7243	-27.8042	47°43.46	-27°48.25
6	47.5556	-27.4859	47°33.34	-27°29.16
7	47.5556	-27.4395	47°33.34	-27°26.37

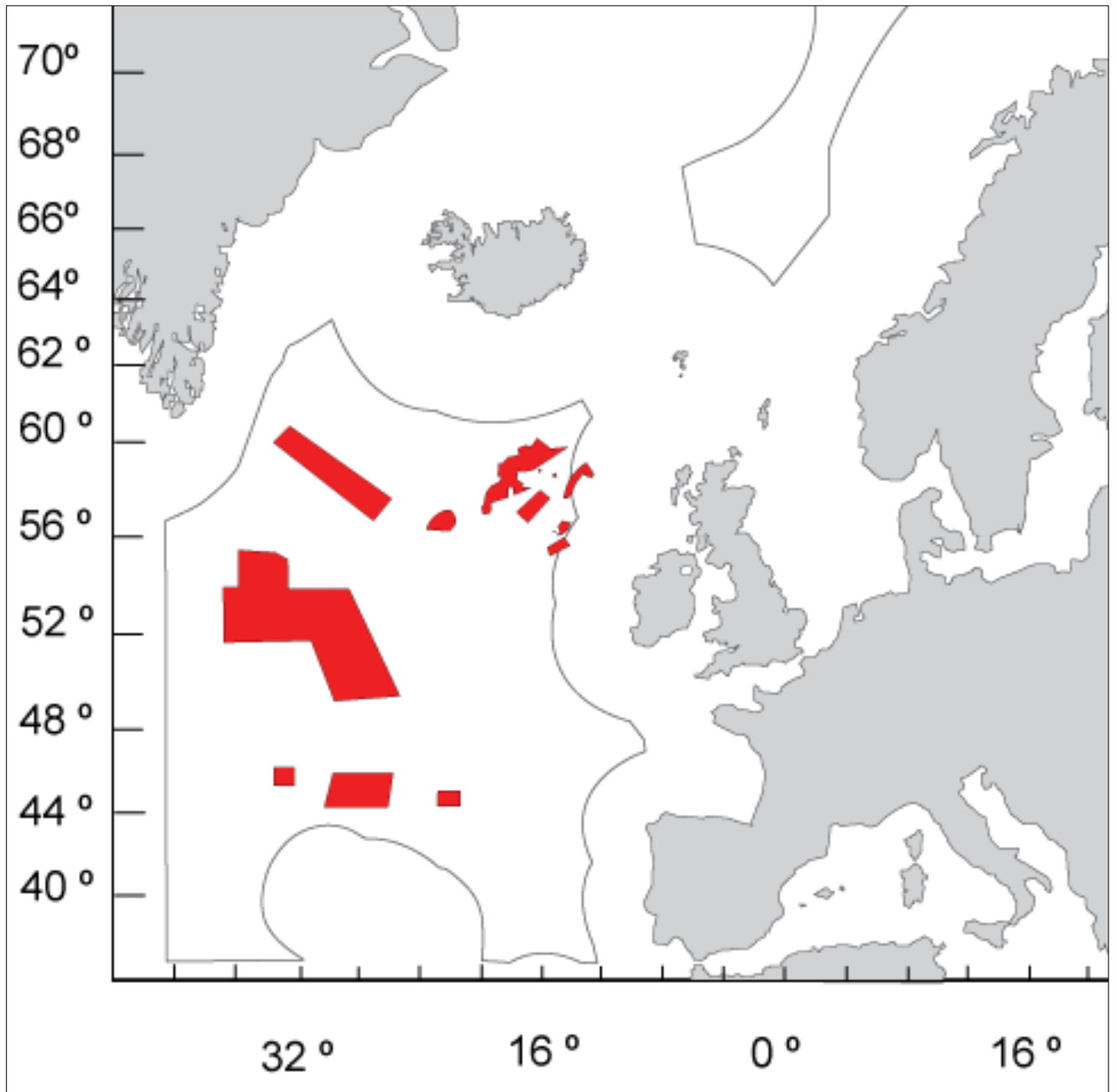
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BAR 1				
	lat	lon	LAT	LON
1	74.1356	41.0604	74°08.14	41°03.62
2	73.7439	41.3600	73°44.63	41°21.60
3	73.4273	41.0317	73°25.64	41°01.90
4	73.1143	40.7075	73°06.86	40°42.45
5	72.6406	40.5967	72°38.44	40°35.80
6	72.1881	40.5433	72°11.29	40°32.60
7	72.2545	39.7799	72°15.27	39°46.79
8	72.6810	38.8237	72°40.86	38°49.42
9	73.0749	37.6254	73°04.49	37°37.52
10	73.3730	36.6445	73°22.38	36°38.67
11	73.6367	35.3640	73°38.20	35°21.84
12	73.9028	34.1123	73°54.17	34°06.74
13	73.9778	33.7019	73°58.67	33°42.11
14	74.2908	35.0644	74°17.45	35°03.86
15	74.5760	36.0207	74°34.56	36°01.24
16	74.9065	36.9441	74°54.39	36°56.65
17	75.0406	37.2724	75°02.44	37°16.34
18	75.3456	38.0887	75°20.74	38°05.32
19	75.8010	38.9516	75°48.06	38°57.10
20	76.2513	39.5952	76°15.08	39°35.71
21	76.8997	42.8932	76°53.98	42°53.59
22	76.7279	44.7579	76°43.67	44°45.47
23	76.2339	43.8950	76°14.03	43°53.70
24	76.0200	42.0669	76°01.20	42°04.01
25	75.5715	42.1034	75°34.29	42°06.20
26	75.0994	39.5952	75°05.96	39°35.71
27	74.1356	41.0604	74°08.14	41°03.62

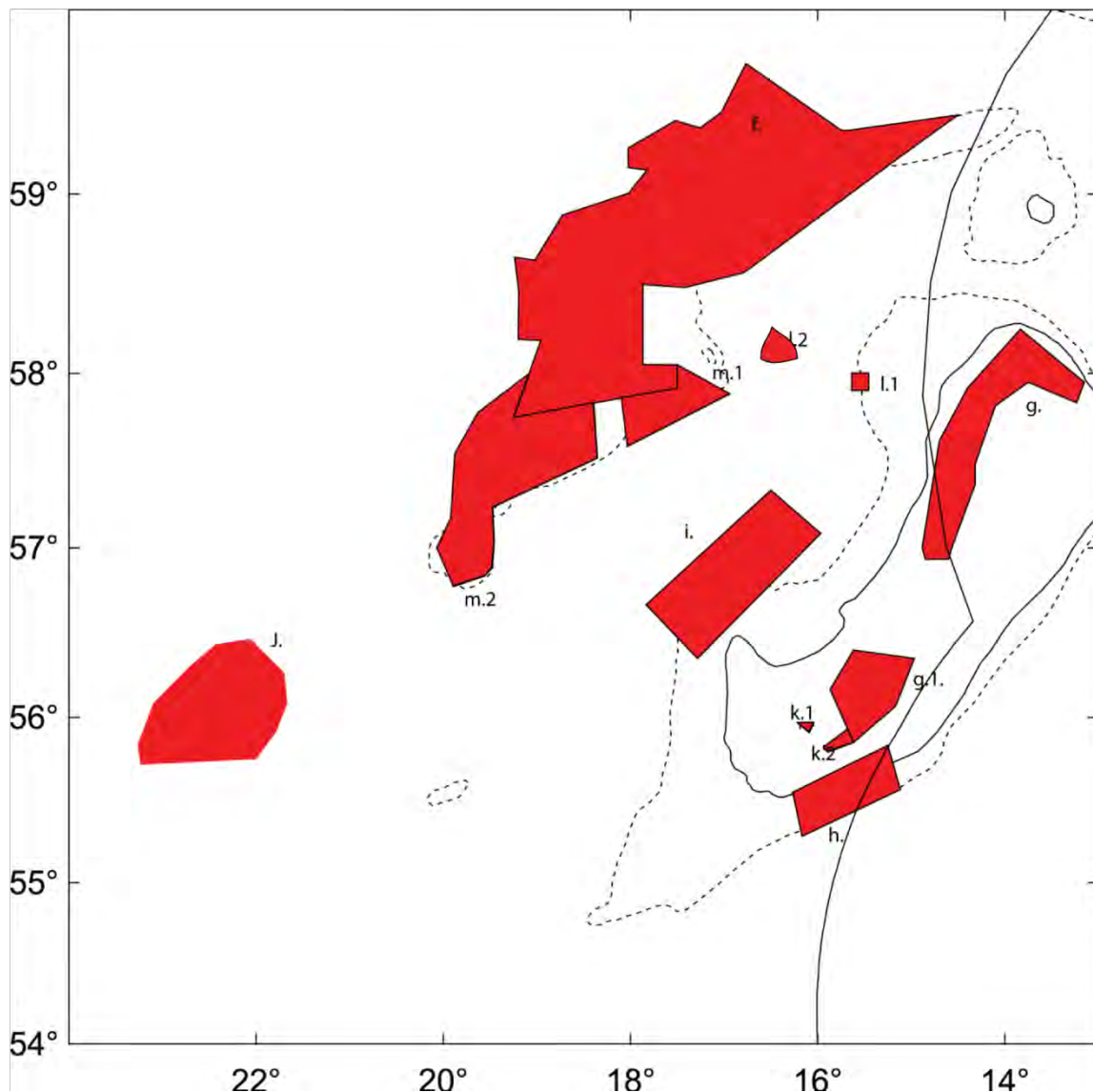
Reykjanes Ridge				
	lat	lon	LAT	LON
1	60.9844	-27.0000	60°59.07	-27°00.00
2	60.8811	-27.4432	60°52.86	-27°26.59
3	60.8893	-27.6897	60°53.36	-27°41.38
4	60.9592	-27.8432	60°57.55	-27°50.59
5	61.0295	-27.7756	61°01.77	-27°46.53
6	61.1569	-28.0560	61°09.41	-28°03.36
7	61.1901	-28.0221	61°11.41	-28°01.33
8	60.9844	-27.0000	60°59.07	-27°00.00

Annex 2

Area closures for the protection of VMEs



Hatton Rockall Closures



Coordinates of areas closed for the protection of VMEs

Area (a): Northern MAR Area

	lat	lon	LAT	LON
1	59.7500	-33.50000	59°45.00	-33°30.00
2	57.5000	-27.50000	57°30.00	-27°30.00
3	56.7500	-28.50000	56°45.00	-28°30.00
4	59.2500	-34.50000	59°15.00	-34°30.00
5	59.7500	-33.50000	59°45.00	-33°30.00

Area (b): Middle MAR Area (Charlie-Gibbs Fracture Zone and sub-Polar Frontal Region)

	lat	lon	LAT	LON

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1	53.5000	-38.0000	53°30.00	-38°00.00
2	53.5000	-36.8170	53°30.00	-36°49.00
3	55.0760	-36.8170	55°04.53	-36°49.00
4	54.9830	-34.6890	54°58.99	-34°41.36
5	54.6860	-34.0000	54°41.18	-34°00.00
6	53.5000	-34.0000	53°30.00	-34°00.00
7	53.5000	-30.0000	53°30.00	-30°00.00
8	51.5000	-28.0000	51°30.00	-28°00.00
9	49.0000	-26.5000	49°00.00	-26°30.00
10	49.0000	-30.5000	49°00.00	-30°30.00
11	51.5000	-32.0000	51°30.00	-32°00.00
12	51.5000	-38.0000	51°30.00	-38°00.00
13	53.5000	-38.0000	53°30.00	-38°00.00

Area (c): Southern MAR Area

	lat	lon	LAT	LON
1	44.5000	-30.5000	44°30.00	-30°30.00
2	44.5000	-27.0000	44°30.00	-27°00.00
3	43.2500	-27.2500	43°15.00	-27°15.00
4	43.2500	-31.0000	43°15.00	-31°00.00
5	44.5000	-30.5000	44°30.00	-30°30.00

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Area (d): Altair Seamount

	lat	lon	LAT	LON
1	45.0000	-34.5833	45°00.00	-34°35.00
2	45.0000	-33.7500	45°00.00	-33°45.00
3	44.4167	-33.7500	44°25.00	-33°45.00
4	44.4167	-34.5833	44°25.00	-34°35.00
5	45.0000	-34.5833	45°00.00	-34°35.00

Area (e): Antialtair Seamount

	lat	lon	LAT	LON
1	43.7500	-22.8333	43°45.00	-22°50.00
2	43.7500	-22.0833	43°45.00	-22°05.00
3	43.4167	-22.0833	43°25.00	-22°05.00
4	43.4167	-22.8333	43°25.00	-22°50.00
5	43.7500	-22.8333	43°45.00	-22°50.00

Area (f): Hatton Bank

	lat	lon	LAT	LON
1	59.4333	-14.5000	59°26.00	-14°30.00
2	59.2000	-15.1333	59°12.00	-15°08.00
3	58.5667	-16.7833	58°34.00	-16°47.00
4	58.4833	-17.4167	58°29.00	-17°25.00
5	58.5000	-17.8667	58°30.00	-17°52.00
6	58.0500	-17.8667	58°03.00	-17°52.00
7	58.0500	-17.5000	58°03.00	-17°30.00
8	57.9167	-17.5000	57°55.00	-17°30.00
9	57.7500	-19.2500	57°45.00	-19°15.00
10	58.1858	-18.9585	58°11.15	-18°57.51
11	58.1928	-19.1995	58°11.57	-19°11.97
12	58.4625	-19.1942	58°27.75	-19°11.65
13	58.6515	-19.2380	58°39.09	-19°14.28
14	58.6352	-19.0215	58°38.11	-19°01.29
15	58.8857	-18.7257	58°53.14	-18°43.54
16	59.0048	-18.0218	59°00.29	-18°01.31
17	59.1335	-17.8218	59°08.01	-17°49.31
18	59.1458	-18.0245	59°08.75	-18°01.47
19	59.2527	-18.0260	59°15.16	-18°01.56
20	59.4028	-17.5203	59°24.17	-17°31.22
21	59.3628	-17.2560	59°21.77	-17°15.36
22	59.4485	-17.0277	59°26.91	-17°01.66
23	59.7115	-16.7660	59°42.69	-16°45.96
24	59.3495	-15.7458	59°20.97	-15°44.75
25	59.3500	-15.6667	59°21.00	-15°40.00
26	59.4333	-14.5000	59°26.00	-14°30.00

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Area (g): Rockall Bank

North West Rockall:

	lat	lon	LAT	LON
1	57	-14.8833	57°00.00	-14°53.00
2	57.6167	-14.7	57°37.00	-14°42.00
3	57.9167	-14.4	57°55.00	-14°24.00
4	58.25	-13.8333	58°15.00	-13°50.00
5	57.95	-13.15	57°57.00	-13°09.00
6	57.8333	-13.2333	57°50.00	-13°14.00
7	57.95	-13.75	57°57.00	-13°45.00
8	57.8167	-14.1	57°49.00	-14°06.00
9	57.4833	-14.3167	57°29.00	-14°19.00
10	57.3667	-14.3167	57°22.00	-14°19.00
11	57	-14.5667	57°00.00	-14°34.00
12	56.9333	-14.6	56°56.00	-14°36.00
13	56.9333	-14.85	56°56.00	-14°51.00
14	57	-14.8833	57°00.00	-14°53.00

South-West Rockall (Empress of Britain Bank):

Area 1

	lat	lon	LAT	LON
1	56.4	-15.6167	56°24.00	-15°37.00
2	56.35	-14.9667	56°21.00	-14°58.00
3	56.0667	-15.1667	56°04.00	-15°10.00
4	55.85	-15.6167	55°51.00	-15°37.00
5	56.1667	-15.8667	56°10.00	-15°52.00
6	56.4	-15.6167	56°24.00	-15°37.00

Area 2

	lat	lon	LAT	LON
1	55.9483	-16.1883	55°56.90	-16°11.30
2	55.97	-16.1883	55°58.20	-16°11.30
3	55.9717	-16.0467	55°58.30	-16°02.80
4	55.9483	-16.0467	55°56.90	-16°02.80
5	55.9483	-16.1883	55°56.90	-16°11.30

Area 3

	lat	lon	LAT	LON
1	55.8317	-15.9333	55°49.90	-15°56.00
2	55.8083	-15.9333	55°48.50	-15°56.00
3	55.805	-15.8433	55°48.30	-15°50.60
4	55.8267	-15.8433	55°49.60	-15°50.60
5	55.8317	-15.9333	55°49.90	-15°56.00

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Area (h): Logachev Mounds

	lat	lon	LAT	LON
1	55.2833	-16.1667	55°17.00	-16°10.00
2	55.5667	-15.1167	55°34.00	-15°07.00
3	55.8333	-15.25	55°50.00	-15°15.00
4	55.55	-16.2667	55°33.00	-16°16.00
5	55.2833	-16.1667	55°17.00	-16°10.00

Area (i): West Rockall Mounds

	lat	lon	LAT	LON
1	57.3333	-16.5	57°20.00	-16°30.00
2	57.0833	-15.9667	57°05.00	-15°58.00
3	56.35	-17.2833	56°21.00	-17°17.00
4	56.6667	-17.8333	56°40.00	-17°50.00
5	57.3333	-16.5	57°20.00	-16°30.00

Area (j): Edora's Bank

	lat	lon	LAT	LON
1	56.4333	-22.4333	56°26.00	-22°26.00
2	56.4667	-22.0667	56°28.00	-22°04.00
3	56.2667	-21.7	56°16.00	-21°42.00
4	56.0833	-21.6667	56°05.00	-21°40.00
5	55.9167	-21.7833	55°55.00	-21°47.00
6	55.75	-22	55°45.00	-22°00.00
7	55.7167	-23.2333	55°43.00	-23°14.00
8	55.8333	-23.2667	55°50.00	-23°16.00
9	56.0833	-23.1	56°05.00	-23°06.00
10	56.3	-22.7167	56°18.00	-22°43.00
11	56.4333	-22.4333	56°26.00	-22°26.00

Area (k) Southwest Rockall Bank

Area 1

	lat	lon	LAT	LON
1	55.9694	-16.2196	55°58.16	-16°13.18
2	55.9706	-16.0427	55°58.24	-16°02.56
3	55.9144	-16.0925	55°54.86	-16°05.55
4	55.9694	-16.2196	55°58.16	-16°13.18

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Area (k) Southwest Rockall Bank

Area 2

	lat	lon	LAT	LON
1	55.9310	-15.6806	55°55.86	-15°40.84
2	55.8500	-15.6167	55°51.00	-15°37.00
3	55.7977	-15.8968	55°47.86	-15°53.81
4	55.8215	-15.9399	55°49.29	-15°56.39
5	55.9310	-15.6806	55°55.86	-15°40.84

Area (l) Hatton–Rockall Basin

Area 1

	lat	lon	LAT	LON
1	58.0025	-15.4538	58°00.15	-15°27.23
2	58.0025	-15.6377	58°00.15	-15°38.26
3	57.90317	-15.6377	57°54.19	-15°38.26
4	57.90317	-15.4538	57°54.19	-15°27.23
5	58.0025	-15.4538	58°00.15	-15°27.23

Area 2

	lat	lon	LAT	LON
1	58.1077	-16.6192	58° 06.46	-16° 37.15
2	58.2656	-16.4744	58° 15.93	-16° 28.46
3	58.1129	-16.1733	58° 06.77	-16° 10.40
4	58.0572	-16.1738	58° 03.43	-16° 10.43
5	58.0248	-16.4197	58° 01.49	-16° 25.19
6	58.0436	-16.6159	58° 02.62	-16° 36.96
7	58.1077	-16.6192	58° 06.46	-16° 37.15

Area (m) Hatton Bank 2

Area 1

	lat	lon	LAT	LON
1	57.8626	-18.0978	57°51.76	-18°05.87
2	57.9167	-17.5000	57°55.00	-17°30.00
3	58.0500	-17.5000	58°03.00	-17°30.00
4	57.8850	-16.9388	57°53.10	-16°56.33
5	57.5851	-18.0335	57°35.11	-18°02.01
6	57.8626	-18.0978	57°51.76	-18°05.87

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Area (m) Hatton Bank 2

Area 2

	lat	lon	LAT	LON
1	57.9993	-19.0842	57°59.96	-19°05.05
2	57.7500	-19.2500	57°45.00	-19°15.00
3	57.8345	-18.3970	57°50.07	-18°23.82
4	57.5188	-18.3547	57°31.13	-18°21.28
5	57.2348	-19.4738	57°14.09	-19°28.43
6	57.0368	-19.4588	57°02.21	-19°27.53
7	56.8853	-19.4828	56°53.12	-19°28.97
8	56.8370	-19.5604	56°50.22	-19°33.62
9	56.7780	-19.8954	56°46.68	-19°53.72
10	57.0007	-20.0704	57°00.04	-20°04.22
11	57.1718	-19.9207	57°10.31	-19°55.24
12	57.5445	-19.8773	57°32.67	-19°52.64
13	57.7780	-19.6310	57°46.68	-19°37.86
14	57.9993	-19.0842	57°59.96	-19°05.05

VME Data Collection Protocol

Observers on fishing vessels in the Regulatory Area who are deployed pursuant to Article 6.6 of this Recommendation shall:

- (a) Monitor any set for evidence of presence of VMEs and identify coral, sponges and other organisms to the lowest level;
- (b) Record on data sheets the following information for identification of VMEs: vessel name, gear type, date, position (latitude/longitude), depth, species code, trip-number, set-number, and name of the observer on data sheets, if possible;
- (c) Collect, if required, representative samples from the entire catch (biological samples shall be collected and frozen when requested by the scientific authority in a Contracting Party); and
- (d) Provide samples to the scientific authority of a Contracting Party at the end of the fishing trip.

Assessment of Exploratory Bottom Fishing Activities

Assessments should address, *inter alia*:

- (a) Type(s) of fishing conducted or contemplated, including vessels and gear types, fishing areas, target and potential by catch species, fishing effort levels and duration of fishing (harvesting plan);
- (b) Best available scientific and technical information on the current state of fishery resources and baseline information on the ecosystems, habitats and communities in the fishing area, against which future changes are to be compared;
- (c) Identification, description and mapping (geographical location and extent) of VMEs known or likely to occur in the fishing area;
- (d) Identification, description and evaluation of the occurrence, character, scale and duration of likely impacts, including cumulative impacts of the proposed fishery on VMEs in the fishing area;
- (e) Data and methods used to identify, describe and assess the impacts of the activity, the identification of gaps in knowledge, and an evaluation of uncertainties in the information presented in the assessment;
- (f) Risk assessment of likely impacts by the fishing operations to determine which impacts on VMEs are likely to be significant adverse impacts; and
- (g) Mitigation and management measures to be used to prevent significant adverse impacts on VMEs and the measures to be used to monitor effects of the fishing operations.

VME INDICATOR SPECIES

The following is a list of seven habitat types as well as physical elements for the NEAFC Regulatory Area, with the taxa most likely to be found in these habitats, which shall be considered as VME indicators.

VME Habitat type	Representative Taxa
1. Cold-water coral reef	
a. <i>Lophelia pertusa</i> reef	<i>Lophelia pertusa</i>
b. <i>Solenosmilia variabilis</i> reef	<i>Solenosmilia variabilis</i>
2. Coral garden	
a. Hard bottom garden	
i. Hard bottom gorgonian and black coral gardens	<i>Anthothelidae</i> <i>Chrysogorgiidae</i> <i>Isididae, Keratoisidinae</i> <i>Plexauridae</i> <i>Acanthogorgiidae</i> <i>Coralliidae</i> <i>Paragorgiidae</i> <i>Primnoidae</i> <i>Schizopathidae</i>
ii. Colonial scleractinians on rocky outcrops	<i>Lophelia pertusa</i> <i>Solenosmilia variabilis</i>
iii. Non-reefal scleractinian aggregations	<i>Enallopsammia rostrata</i> <i>Madrepora oculata</i>
b. Soft-bottom coral gardens	
i. Soft-bottom gorgonian and black coral gardens	<i>Chrysogorgiidae</i>
ii. Cup-coral fields	<i>Caryophylliidae</i> <i>Flabellidae</i>
iii. Cauliflower coral fields	<i>Nephtheidae</i>
3. Deep-sea sponge aggregations	
a. Other sponge aggregations	<i>Geodiidae</i> <i>Ancorinidae</i> <i>Pachastrellidae</i>

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- | | | |
|----|-------------------------------|--|
| b. | Hard-bottom sponge gardens | <i>Axinellidae</i>
<i>Mycalidae</i>
<i>Polymastiidae</i>
<i>Tetillidae</i> |
| c. | Glass sponge communities | <i>Rossellidae</i>
<i>Pheronematidae</i> |
| 4. | Seapen fields | <i>Anthoptilidae</i>
<i>Pennatulidae</i>
<i>Funiculinidae</i>
<i>Halipteridae</i>
<i>Kophobelemnidae</i>
<i>Protoptilidae</i>
<i>Umbellulidae</i>
<i>Vigulariidae</i> |
| 5. | Tube-dwelling anemone patches | <i>Cerianthidae</i> |
| 6. | Mud- and sand-emergent fauna | <i>Bourgetcrinidae</i>
<i>Antedontidae</i>
<i>Hyocrinidae</i>
<i>Xenophyophora</i>
<i>Syringamminidae</i> |
| 7. | Bryzoan patches | |

* * * * *

Physical elements	Explanation
Isolated seamounts	Non-MAR seamounts
Steep-slopes and peaks on mid-ocean ridges	Steep ridges and peaks support coral gardens and other VME species in high density
Knolls	A topographic feature that rises less than 1,000 metres from the seafloor
Canyon-like features	A steep sided “catchment” feature not necessarily associated with a shelf, island or bank margin
Steep flanks >6.4°	From NAFO SCR Doc. 11/73

Recommendation to amend the requirements in the NEAFC Scheme relating to co-operating non-Contracting Party status

As proposed by Permanent Committee on Monitoring and Compliance (PECMAC), the Commission hereby adopts the following recommendation pursuant to Article 8 of the Convention:

Article 34 - Co-Operating Non-Contracting Party Status

A non-Contracting Party may apply for the status of a co-operating non-Contracting Party in accordance with Article 34a or 34b.

Co-operating non-Contracting Parties shall be invited to participate at NEAFC Annual Meetings and meetings of the subsidiary bodies open to observers.

Article 34a – General Co-Operating Non-Contracting Party Status

If a non-Contracting Party is seeking co-operation with NEAFC in order to be able to attend NEAFC Annual Meetings and meetings of the subsidiary bodies open to observers, a request for the status as general co-operating non-Contracting Party shall be submitted to the Secretary by 1 October. The non-Contracting Party concerned shall undertake to respect the provisions of this Scheme and all other Recommendations established under the Convention.

General co-operating non-Contracting Parties shall not engage in fishing activities in the NEAFC Regulatory Area.

The Secretary shall recommend to the Commission whether the status as general co-operating non-Contracting Party status shall be granted.

The decision to grant the status as general co-operating non-Contracting Party shall be made by the Commission on a year-to-year basis.

Article 34b – Active Co-Operating Non-Contracting Party Status

1. If a non-Contracting Party is seeking co-operation with NEAFC to be able to operate fishing vessels or conduct research programmes in the NEAFC Regulatory Area, an application for the status as active co-operating non-Contracting Party shall be submitted to the Secretary by 1 March. The application for the status as active co-operating non-Contracting Party shall be accompanied by a report containing the following information:

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- a. Full data on its historical fisheries in the NEAFC area, including nominal catches, number/type of vessels, name of fishing vessels, fishing effort and fishing areas:
- b. Details on current fishing [activity](#) presence in the Regulatory Area, number of vessels and vessels characteristics;
- c. Details of research programmes it has conducted in the Regulatory Area, the results of which it shall share with NEAFC.
- d. Details on measures in place by that non-Contracting Party to ensure compliance with [flag State](#) and [port State](#) obligations in accordance with relevant international instruments, in particular the FAO Agreement on Port State Measures and the FAO Voluntary Guidelines for Flag State Performance. In respect of [flag State](#) obligations, these details [shall include either a full assessment carried out in accordance with the FAO Voluntary Guidelines for Flag State Performance or an assessment in accordance with Annex XX of the Scheme](#). Such assessments may also be carried out by a Contracting Party.

Furthermore, the non-Contracting Party [applying for active co-operating non-Contracting Party status](#) shall:

- o [Describe the activity they wish to conduct in the NEAFC Regulatory Area during the year they apply for;](#)
- o Undertake to respect the provisions of this Scheme and all other Recommendations established under the Convention;
- o [Ensure its vessels are communicating VMS data and catch and activity data in accordance with the requirements in the NEAFC Scheme;](#)
- o Inform NEAFC of the measures it takes to ensure compliance by its vessels, including inter alia, observer programmes, inspection at sea and in port, and VMS;
- o Communicate annually catch and effort data and size frequency distribution of the catches (when possible) in due time and appropriate format for scientific evaluation of the stocks.

[2.](#) On the basis of the request submitted, as well as any other relevant information, PECMAC shall recommend to the Commission, if appropriate, whether the status of [active](#) co-operating non-Contracting Party may be granted.

The status may be granted if the [non-Contracting Party](#) is able to comply with:

- o [flag State](#) and [port State](#) obligations in accordance with relevant international instruments, and
- o [the NEAFC Recommendations](#), including this Scheme.

[The decision to grant the status as active co-operating non-Contracting Party shall be made by the Commission on a year-to-year basis. Co-operating non-Contracting Parties shall pay a fee of 5,500 British pound sterling before the start of the year for which the status has been granted.](#)

Article 35 - Communications by [Active](#) Co-Operating Non-Contracting Parties

1. The [active](#) co-operating non-Contracting Party shall ensure that its fishing vessels communicate by electronic means to their FMC the reports provided for in Articles 11, 12 and 13.

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2. The [active](#) co-operating non-Contracting Party shall communicate reports and messages pursuant to Articles 11, 12 and 13 to the Secretary without delay in accordance with the provisions of Article 14.

3. The [active](#) co-operating non-Contracting Party shall provide reports to the Secretary in accordance with the provisions of Article 10.

4. The [active](#) co-operating non-Contracting Party shall report to the Secretary by 1 March each year for the previous calendar year the number of vessels notified in the NEAFC RA, the number of vessels in operation per month, the number of reports by type provided for in Articles 11, 12 and 13 per month and the number of notifications of entry into port provided for in Article 22.

5. The [active](#) co-operating non-Contracting Party shall report to the Secretary by 1 March each year for the previous calendar year the status of the follow-up of infringements in accordance with the provisions of Article 33.

Article 36 - Monitoring of Fisheries by [Active](#) Co-Operating Non-Contracting Parties

1. Vessels of an [active](#) co-operating non-Contracting Party shall only fish for regulated species if the flag state of the vessels notifies the Secretary by 31 October by registered letter, of its intention to fish on a co-operation quota during the following year. In the notification the [active](#) co-operating non-Contracting Party shall give an undertaking to monitor the activities of its vessels and carry out inspections in port and at sea in order to ensure their compliance with the relevant recommendations established under the Convention.

This notification shall also include for all fishing vessels flying the flag of the [active](#) co-operating non-Contracting Party concerned that intend to engage in fishing activities in the Regulatory Area the information listed and in the format of Annex II. The [active](#) co-operating non-Contracting Party shall notify any modifications to this information without delay.

2. The Secretary shall notify without delay and by the most rapid electronic means available to all Contracting Parties and [active](#) co-operating non-Contracting Parties the date on which the accumulated reported catch, the estimated unreported catch, the estimated quantity to be taken before the closure of the fishery and likely by-catches, equal 100 percent of the stock subject to the co-operation quota. Each [active](#) co-operating non-Contracting Party concerned shall, within 7 days of the date of issue of such electronic notification by the Secretary, close its fishery in the Regulatory Area for that stock.

Amendments to other Articles in the NEAFC Scheme

Splitting the co-operating non-Contracting Party status in two as described above, will require other amendments to the NEAFC Scheme. The following amendments are proposed:

- **Article 4 paragraph 2:**

2.A master of a fishing vessel shall not engage in transshipment or joint fishing operations with vessels of non-Contracting Parties which have not been granted the status of [active](#) co-operating non-Contracting Parties in accordance with Article 34**b**.

- **Article 11 paragraph 5:**

5.Contracting Parties shall, for the purposes of this Scheme, co-operate with the Secretary in order to maintain a database delimiting the Regulatory Area by latitude and longitude co-ordinates. Changes to these co-ordinates shall without delay be notified to the Secretary in a computer readable form according to the procedures described in Annex VII b) in order to keep this database up to date. The co-ordinates shall be without prejudice to each Contracting Party's position concerning the delimitation of sea areas under their sovereignty and jurisdiction. The Secretary shall notify all Contracting Parties, and [active](#) co-operating non-Contracting Parties, of any changes by providing them with updated co-ordinates in the format described in Annex VII b) without delay.

- **Article 29 letter n:**

The following infringements shall be considered to be serious:

n. engaging in transshipment or joint fishing operations with vessels of a non-Contracting Party which has not been accorded the status of [active](#) co-operating non-Contracting Party in accordance with Article 34**b**;

- **Article 37 paragraph 2:**

2.The Contracting Party which sighted the non-Contracting Party vessel shall attempt to inform such a vessel without delay that it has been sighted or by other means identified as engaging in fishing activities in the Convention Area and unless its flag state has been accorded the status of [active](#) co-operating non-Contracting Party provided for under Article 34**b**, is consequently presumed to be undermining the Recommendations established under the Convention.

- **Article 44 paragraph 1 and 2**

1.Unless its flag State has been accorded the status of [active](#) co-operating non-Contracting Party provided for under Article 34**b**, a vessel which has been sighted or by other means identified according to information received pursuant to Articles 37, 38 and 40 as engaging in fishing activities in the Convention Area is presumed to be undermining the effectiveness of Recommendations established under the Convention. The same shall apply in the case of information required under Article 41 not being provided by its flag State. The Secretary shall place such a vessel on a provisional list of IUU vessels ('A' list) and promptly inform its flag State accordingly.

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2. A vessel of an [active](#) co-operating non-Contracting Party shall immediately be added to the 'A' list by the Secretary if it is revealed that it has failed to establish that the fishing activities took place in compliance with all relevant Recommendations established under the Convention.

ANNEX XX-Information to be provided when applying for status as active co-operating non-Contracting Party

Applicants for the status as active co-operating non-Contracting Party shall include information as requested below in their application:

1. A list of the relevant international instruments to which they are a Party, including Regional Fisheries Management Organisations. A list of the Regional Fisheries Management Organisation to which they are a co-operating non-Contracting Party shall also be provided.
2. A description of the port State control measures implemented in accordance with the FAO Port State Measures Agreement.
3. A description of the institutional, legal and technical foundation/ framework for fisheries management (such as that referred to in Article 7 of the 1995 FAO Code of Conduct for Responsible Fisheries) in place, including at a minimum:
 - (a) a government agency/ authority with a clear mandate and accountability for the results of fisheries management policy;
 - (b) an agency/ authority to issue regulations and ensure control and enforcement;
 - (c) internal organization for inter-departmental coordination, in particular coordination between fisheries authorities and vessel registry authorities; and
 - (d) infrastructure for scientific advice.
4. The measures in place to effectively manage fishing activities and transshipment activities of the vessels flying their flag, ensuring the conservation and sustainable use of living marine resources.
5. The legal framework and other measures in place ensuring that vessels flying their flag do not engage in
 - o activities undermining the effectiveness of international conservation and management measures;
 - o unauthorized fishing and transshipment activities within areas under the national jurisdiction of other States.
6. How the obligations incumbent upon vessel owners, operators and crews are made clearly accessible and communicated to them; and how guidance is provided regarding how to meet these obligations.

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7. A description of the procedures for registration in their national vessel registry, including:
 - (a) requirements for information regarding vessel owners and operators which identifies beneficial owners and operators;
 - (b) requirements for information regarding characteristics of the vessel;
 - (c) verification of vessel history;
 - (d) grounds for refusal of registration of the vessel, including, to the extent possible, if it is on an IUU list or record, has a history of non-compliance or is registered in two or more States;
 - (e) deregistration requirements;
 - (f) notification of changes and regular update requirements;
 - (g) coordination of registration between fisheries and merchant marine registries; and
 - (h) coordination with prior flag States to determine whether there are pending investigations or sanctions; and to prevent double registrations and flag hopping.
8. A description of whether and how pending sanctions against a vessel are settled before it is deregistered.
9. Whether registration procedures are easily accessible and transparent.
10. Whether the registry data are publicly available and easily accessible.
11. A description of their internal organization for inter-departmental coordination, in particular coordination between the general vessel registry authorities, the record of fishing vessels and the fisheries authorities. This shall include information regarding how information is shared and how it is ensured that each registry/ record/ authority gives appropriate consideration of the other.
12. A description of whether a record of fishing vessels and vessels involved in transshipments flying their flag is maintained and includes:
 - (a) information about the vessel: specific identity sign, call sign, name of the vessel, IMO number, maximum length, breadth, gross tonnage, year of construction/reconstruction, hull material, year of engine construction, engine power and building certificate;
 - (b) information about the owners and beneficial owners of the vessel and its co-owner(s): full name, business address, address of residence and postal address; and
 - (c) special licences and annual permits.
13. A description of whether the records are kept in accordance with relevant subregional, regional and international standards and requirements.
14. A specification of whether the regime for authorisations ensures that no vessel is allowed to fish or be involved in transshipments unless so authorized, in a manner consistent with international law and with the sustainability of the relevant stocks, including:
 - (a) appropriate scope for authorization of fishing and fishing related activities, including conditions for the protection of marine ecosystems;
 - (b) prior assessment of a vessel's history of compliance and ability to comply with applicable measures; and
 - (c) minimum information requirements in the authorization that allow identification of accountable persons, areas and species.

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15. A specification of how their regime ensures that authorisations for fishing and taking part in transshipment activities are only issued where:
 - (a) the vessel has the ability to comply with the terms and conditions of the authorization;
 - (b) they can effectively exercise their jurisdiction and control over the vessel to ensure compliance with applicable conservation and management measures; and
 - (c) they can effectively exercise their enforcement jurisdiction and authority over the holder of the authorisation.

16. A description of the control regime in place for the vessels flying their flag and whether it includes, as a minimum:
 - (a) legal authority to take control of the vessels (e.g. denial of sailing, recall to port);
 - (b) up-to-date record of vessels;
 - (c) monitoring tools, such as vessel monitoring systems, logbooks/documentation;
 - (d) mandatory requirements regarding fisheries-related data that must be recorded and
 - (e) reported in a timely manner by the vessels (e.g. catches, effort, bycatches and discards;
 - (f) landings and transshipments); and
 - (g) an inspection regime, including at sea and at port.

17. A description of their enforcement regime and whether it includes, as a minimum:
 - (a) authority and capacity to detect, conduct timely investigations and take enforcement action with respect to violations, including an appropriate system for the acquisition, collection, preservation and maintenance of the integrity of evidence;
 - (b) a system of sanctions proportionate to the seriousness of the violation and adequate in severity to effectively secure compliance and discourage violations,
 - (c) co-operation and mutual legal assistance, including as appropriate information sharing and reporting arrangements with other States and international organizations,
 - (d) prohibition of high seas fishing and fishing related activities by a vessel flying their flag where such vessel has been involved in the commission of a serious violation of relevant subregional or regional conservation and management measures applicable to the high seas, until such time as all outstanding sanctions imposed by the flag State in respect of the violation have been complied with in accordance with their laws.

18. Whether any of their vessels are included on any RFMO IUU list. If so, a description of the action taken in respect of this/ these vessel(s) should be included.

Recommendation 12 : 2021

Recommendation to amend the NEAFC Scheme of Control and Enforcement to add code to Appendix 1b) to Annex IV

As proposed by Permanent Committee on Monitoring and Compliance (PECMAC), the Commission hereby adopts the following recommendation pursuant to Article 8 of the Convention:

Code	Type
BUL	Bulk

Recommendation on Annexes XVa and XVb of the NEAFC Scheme of Control and Enforcement

As proposed by Permanent Committee on Monitoring and Compliance (PECMAC), the Commission hereby adopts the following recommendation pursuant to Article 8 of the Convention:

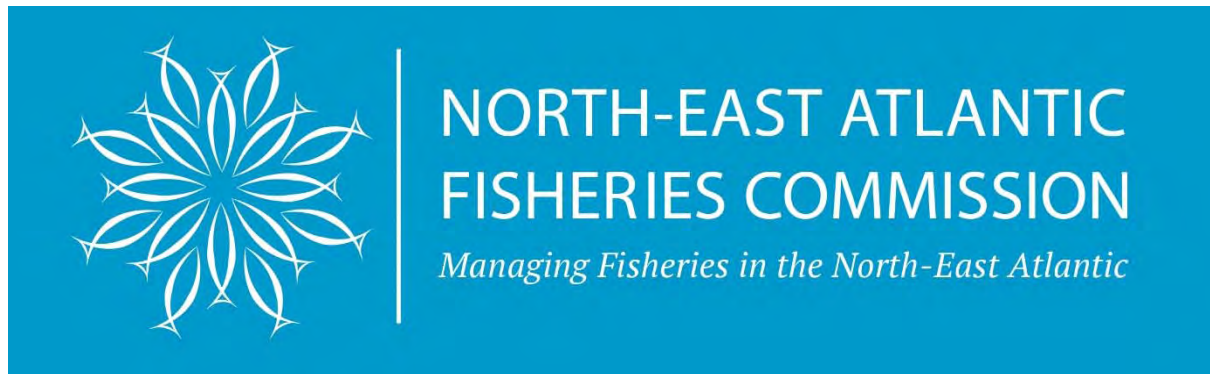
The current backup system when the NEAFC PSC website is offline, is a fax-based system, which has undergone a decline in use. Vessels now commonly have in place email systems, which are reliable and easy to use by the operator. It is proposed to make an amendment to the NEAFC Scheme in order to include email-based systems as an alternative to transmit the [PSC1 Form in Annex XVa and PSC2 Form in Annex XVb](#).

The text in both Annex XVa and Annex XVb would thus read as follows:

“Notifications and the completion of Parts A, B and C, pursuant to Articles 22, 23 and 39 shall be done through an online application established and maintained by the Secretary on the NEAFC website. [An email system or](#) a fax-based system, using the forms set out in Annex XV, shall be used as a back-up system in the event that the NEAFC website is offline.”

**Amendment to Recommendation 20:2020 on introducing the ERS Implementation document
in Annex IX of the Scheme (FLUX Fishing Activities)**

As proposed by Permanent Committee on Monitoring and Compliance (PECMAC), the Commission hereby adopts the following recommendation pursuant to Article 8 of the Convention:



**NEAFC FLUX Fishing Activities
ERS Implementation
Document**

Version 1.1.2

September 2020

(Amendment to NEAFC Recommendation 20:2020)

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1. INTRODUCTION

This document describes the implementation of the UN/CEFACT standard FLUX for exchange of fishing activity information (the standard) as outlined in the NEAFC Scheme of Control and Enforcement (the Scheme) and should be read in conjunction with the Scheme.

In chapters 3 and 4 the scope, legal basis and references are covered. Chapter 5 describes the stakeholders and terminology used and chapter 6 describes the procedures.

In chapter 7 the NEAFC implementation of the data model for Fishing Activity Reports (7.1) and Responses (7.2) is described and Chapter 8 details the common set of business rules that should be implemented by parties exchanging data in NEAFC context.

A reference to XML examples is provided in chapter 9 and chapter 10 contains an overview of the code list aliases used in this document and a reference to the Master Data register. Finally Chapter 11 specifies the required parameters for the FLUX TL envelope when transmitting the messages described in this document.

The targeted audience of this document is business and technical staff responsible for system implementation of the fishing activities domain in NEAFC context.

2. GLOSSARY

AIS	Automatic Identification System
BR	Business Rule
BRS	Business Requirements Specification
CP	Contracting Party
EEZ	Exclusive Economic Zone
ERS	Electronic Reporting System
FA	Fishing Activity
FAO	Food and Agriculture Organization of the United Nations
FLAP	Fishing Licenses, Authorisations and Permits domain
FLUX	Fisheries Language for Universal eXchange
FMC	Fisheries Monitoring Centre
GP	General Principles
IRCS	International Radio Call Sign
ISMS	Information Security and Management System
ISO	International Organization for Standardization
MDR	Master Data Register
NEAFC	North-East Atlantic Fisheries Commission
RFMO	Regional Fisheries Management Organization
TL	Transportation Layer (software to exchange UN/FLUX messages)
UN/CEFACT	United Nations Centre for Trade Facilitation and Electronic Business
UN/FLUX	The FLUX standard under United Nations umbrella
UTC	Coordinated Universal Time
UUID	Universally Unique Identifier
UVI	Universal Vessel Identifier
VMS	Vessel Monitoring System
WGS84	World Geodetic System 1984
XML	eXtensible Markup Language
XSD	XML Schema Definition

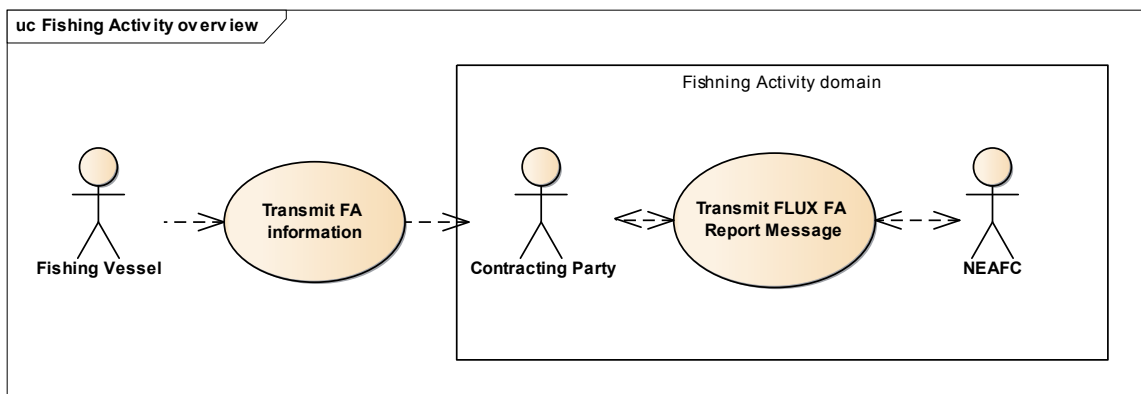
3. LEGAL BASIS AND SCOPE

The implementation of the standard applies within the scope of the Scheme.

The exchange of validated fishing activity information is based on the flag State or Contracting Party principle. The Contracting Party plays the role of a report provider to other stakeholders, ensuring fishing activity information received from vessels flying their flag or the flag of any of its Member States are forwarded to the NEAFC Secretary according to the rules described in this document.

This document concerns exchange of electronic fishing activity information between Contracting Parties and the NEAFC Secretary (Figure 1). For the sake of clarity the document sometimes mentions the exchanges between the master of the fishing vessel and the flag State authorities.

Figure 1: Fishing Activity domain - scope



For each fishing activity message (FLUX FA Report Message), the business rules and definition of mandatory, conditional and optional data elements and attributes are based on requirements defined in the following articles and annexes of the Scheme:

- Article 9 – Recording of Catch and Fishing Effort
- Article 12 – Communication of Fishing Activities
- Article 13 – Communication of Transhipments and of Port of Landing
- Article 14 – Communication to the Secretary
- Annex IV a) – Log Book Recordings

4. REFERENCES

The following **documents** are referenced in this document and are directly linked to this implementation document.

Standard	Version
FLUX BRS: P1000 – 1; General principles	2.1
FLUX BRS: P1000 – 3; Fishing Activity domain	1.1

The following **data structures** are referenced in this document and are directly linked to this implementation document.

Fishing Activities UN/CEFACT XSD	Version
FLUXFAReportMessage_3p1.xsd	3.1
FLUXResponseMessage_6p0.xsd ¹	6.0

Other relevant reading to provide more context to the data model described in this implementation document.

Standard	Version
FLUX BRS: P1000 – 2; Fishing Vessel domain	3.2
FLUX BRS: P1000 – 7: Vessel Position domain	2.0
FLUX BRS: P1000 – 9: Fishing Licence Authorization & Permit (FLAP) domain	1.1

The documents are available on the Master Data Register page of the NEAFC website at <https://www.neafc.org/mdr>².

¹ The response to a FLUX FA Report Message or a FLUX FA Query Message is a general principles response.

² <https://www.neafc.org/mdr>

5. STAKEHOLDERS AND TERMINOLOGY

5.1. Stakeholders and their main responsibilities related to data exchanges

Stakeholder	Responsibility
Flag State or Contracting Party	<ul style="list-style-type: none"> • Store all data related to fishing activities received from the master of vessels carrying its flag. • Validate data received from the vessels carrying its flag, as a minimum according to the set of validation and verification rules⁴. • Send to the NEAFC Secretary validated information on fishing activities of its vessels that are or will be in the Regulatory Area. • Have fall-back procedures³ in place to ensure timely exchange of relevant data. • Investigate and where possible correct and resend fishing activity messages that did not pass the validation rules applied by the receiving party. • Forward return message information to the master of the vessel.
Flag State or Contracting Party with inspection presence	<ul style="list-style-type: none"> • Receive from the NEAFC Secretary, fishing activity data of the vessels of other contracting parties in the NEAFC Regulatory Area, as set out in the Scheme.
NEAFC Secretary	<ul style="list-style-type: none"> • Receive, validate⁴ and store data from all vessels covered by the scope of the Scheme. • Have fall-back procedures³ in place to ensure timely exchange of relevant data. • Investigate and inform the Contracting Party if the received fishing activity messages did not pass the validation business rules.

³ See section 6.5

⁴ Validation of fishing activity messages (FLUX FA Report Message) according to principles described in section 6.2.1 and the set of validation and verification rules as described in chapter 8 of this document.

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	<ul style="list-style-type: none">• Forward or make available to a Contracting Party with active inspection presence validated information on fishing activities related to the NEAFC Regulatory Area.• Forward, where relevant, to any Contracting Party validated information on notifications of arrival to port with the intention to land catches taken or on-loaded in the NEAFC Regulatory Area.
Master of the fishing vessel	Report in an accurate and timely manner all fishing activity information to its flag state in accordance to all applicable rules, so that the flag State or Contracting Party can forward the required fishing activity information to the Secretariat.

5.2. Terminology

The purpose of this section is to clarify the technical terminology used in the UN/CEFACT FLUX standard and how it relates to terminology used in the Scheme.

The diagram in Figure 2 illustrates how fishing activity business information is reported as part of **reports** and how these reports are grouped into a **message** for transmission.

Fishing activity business information, such as Date/time, location, gear used and catch details, describes the activity and is recorded in a **Fishing Activity** (Figure 2(3)). A fishing activity may also contain a reference to the **fishing trip** it belongs to.

Fishing activities are recorded in **Reports** (Figure 2(2)).

Typically a **Report** contains information about one **Fishing Activity**. Examples of Reports are an entry into area report, daily catch report, or transshipment report.

Each **Report** has a unique ID, which doesn't change, even if the report is transmitted several times within different **Messages**. It also contains the date and time of the transmission of the information from the vessel/reception by the FMC and an FMC marking where appropriate.

A **Report** can be corrected. In such case the original **Report** is replaced completely.

A **Report** can be cancelled. In such case the original **Report** is marked and is not applicable anymore. This is used for notification reports (e.g. prior notification of entry, exit)

Reports are communicated to NEAFC in **Messages** (Figure 2(1)). A **Message** contains one or more **Reports**. Each **Message** transmitted has a unique ID. A Message cannot be corrected, nor cancelled.

Figure 2: Diagram showing contents of a FLUX FA Report Message

¹**(Fishing Activity) Message** (FLUX FA Report Message)

A **Message** is the top-level entity containing business information related to fishing activities transmitted between parties and structured according to a standard. It is also known as "the business message".

Each **Message** transmitted has a unique ID. It cannot be corrected, nor cancelled.

It contains one or more **Reports**².

FLUX Report Document (1)

This entity provides the identifier, creation date/time and purpose code of the **Message**. Purpose code is always 9 (create). It also contains the owner of the **Message** (party transmitting).

²**(Fishing Activity) Report** (FA Report Document (1..*))

A **Report** is comparable with one logbook line (for one vessel) in paper logbooks. There are 2 types of **Reports: Notifications and Declarations**

Each **Report** has a unique ID, which doesn't change, even if the report is transmitted several times within different **Messages**¹.

It also contains the date and time of the transmission of the information from the vessel/reception by the FMC and an FMC marking where appropriate.

A **Report** can be corrected. In such case the original **Report** is replaced completely.

A **Report** can be cancelled. In such case the original **Report** is marked and is not applicable anymore. This is used for notification reports (eg. prior notification of entry, exit)

Typically a **Report** contains information about one **Fishing Activity**³, however
 - for haul-by-haul recording transmitted daily⁵, multiple **fishing operations**⁴ may be recorded in one **Report**.
 - if the *purpose* of the **Report** is a cancellation, there is no Fishing Activity entity included.

⁴ A fishing operation is a type of fishing activity.

⁵ Each haul may also be reported in a separate report.

FLUX Report Document (1)

This entity provides the identifier, creation date/time and purpose code of the **Report**. It also contains the owner of the **Report** (flag state) and where applicable a reference (identifier) to a report being corrected or cancelled

VesselTransportMeans (0..1)

Information on the reporting vessel for this **Report**. Mandatory, except when the report is deleted or cancelled.

³**Fishing Activity (0..*)**

The fishing activity entity contains the business information describing the actual activity.

It includes the following information (where required/applicable):

- Type (eg. fishing operation, entry in area, transshipment)
- Date/time/duration of the activity
- Location where the activity will take place or has taken place
- (Anticipated) vessel activity, number of operations, targeted species
- Gear characteristics of the gear deployed and gear problems if any
- Gear shot/retrieval details (time, location)
- Information on bottom/fishing depth
- Details of the other vessel involved in the activity

A fishing activity may also contain a reference to the **fishing trip** it belongs to.

Fishing Trip (0..1)

The fishing trip entity contains the fishing trip ID. The trip ID is comparable with the unique identifier on the paper logbook. All fishing activities that belong to the same trip have the same trip ID.

VesselTransportMeans (0..1)

Information on the other vessel involved in the activity.

5.2.1. Contents of a FLUX FA Report Message

- a) A Fishing Activity **Message**, or "message", is defined in art 1 letter s of the Scheme. The "FLUX FA Report Message" is the equivalent of this "message" in the UN/CEFACT FLUX standard. It is used for transmitting one or more Fishing Activity Reports.
- b) A Fishing Activity **Report**, or "report", is defined in art 1 letter r of the Scheme. The "FA Report Document" is the equivalent of this "report" in the UN/CEFACT FLUX standard. It is the standardized record made by the Contracting Party based on fishing activity information recorded and transmitted by the master of a fishing vessel.

There are 2 types of Fishing Activity Reports⁵

- a. Declarations⁶ are reports about a fishing activity that is taking or has taken place at the time of its recording and transmission.
- b. Notifications⁷ are reports about the intention to perform an activity in the future.

A Fishing Activity Report contains business information related to one or more "**Fishing Activities**", as defined in art. 1 letter e of the Scheme.

- c) The **Electronic fishing logbook** as defined in article 1 letter p of the Scheme consists of one or more Fishing Activity Reports.
- d) "FLUX Report Document" is an entity in the UN/CEFACT FLUX standard data model containing general information related to a FLUX FA Report Message or an FA Report Document. It contains identification, creation date/time, owner/sender, purpose and where applicable a reference to a report being corrected or cancelled.
- e) "Vessel Transport Means" is an entity in the UN/CEFACT FLUX standard containing business information related to the vessel, the master of the vessel and position of the vessel at time of transmission of the fishing activity information. Depending on the how this entity is related to the FA Report Document or Fishing Activity, the vessel information recorded is for the reporting vessel or for the other vessel involved in the activity.

⁵ See "Type" in Table 4.

⁶ Article 1 letter t of the Scheme.

⁷ Article 1 letter u of the Scheme.

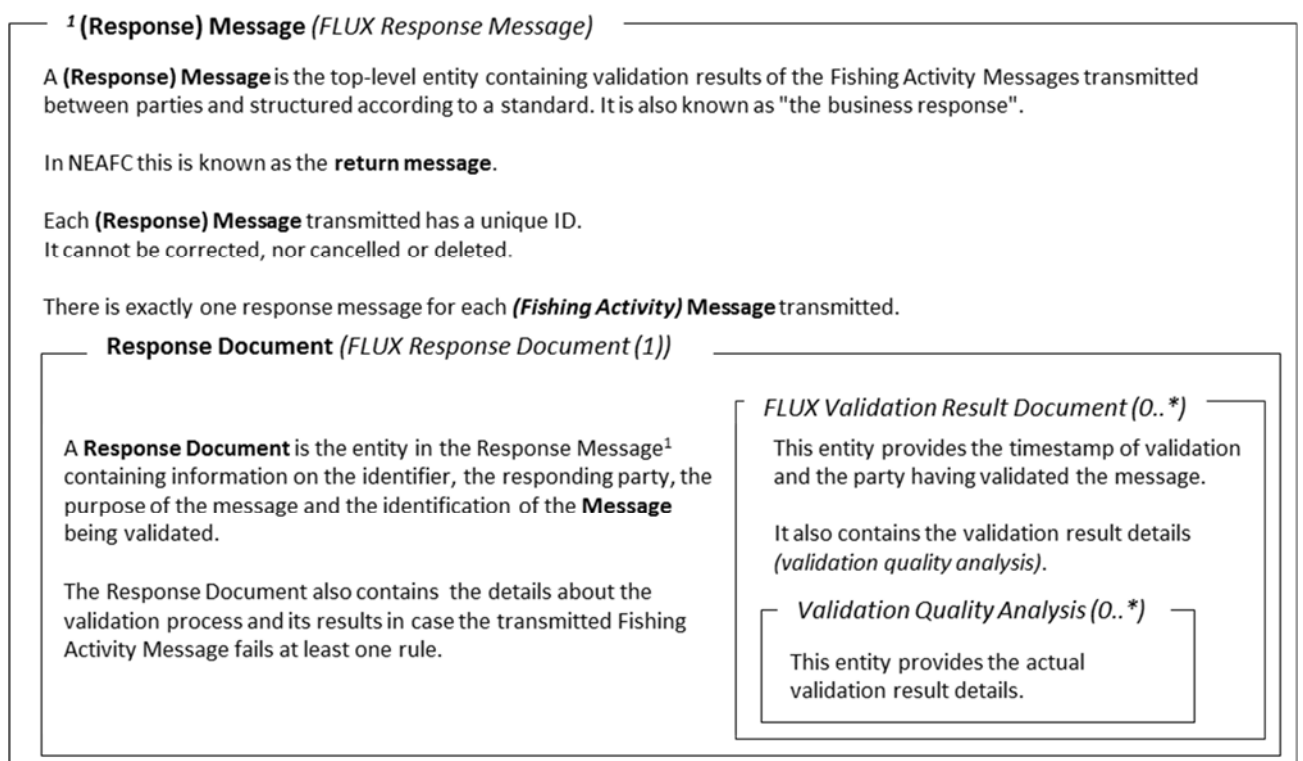
- f) A Fishing Trip within the context of NEAFC is defined in the Scheme art. 1 letter q. In the UN/CEFACT FLUX standard, "Fishing Trip" is the entity that contains the trip identifier for the reported Fishing Activity.
- g) "Fishing Operation" is a type of Fishing Activity for reporting business information on fishing operations as described in article 12 of the Scheme.

5.2.2. Contents of a FLUX Response Message

After receiving a Fishing Activity Message and validating the Fishing Activity Reports it contains, NEAFC informs the Contracting Party of the status of the reports. This status is communicated in a Response Message.

The diagram in Figure 3 illustrates how a response message is structured. It contains the information of a return message.

Figure 3: Diagram showing contents of a FLUX Response Message



A **Response Message** (FLUX Response Message) is used in the UN/CEFACT FLUX standard to report validation results about Fishing Activity Messages (FLUX FA Report Message). It

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contains all problems detected during the validation process. There is one FLUX Response Message for each FLUX FA Report Message.

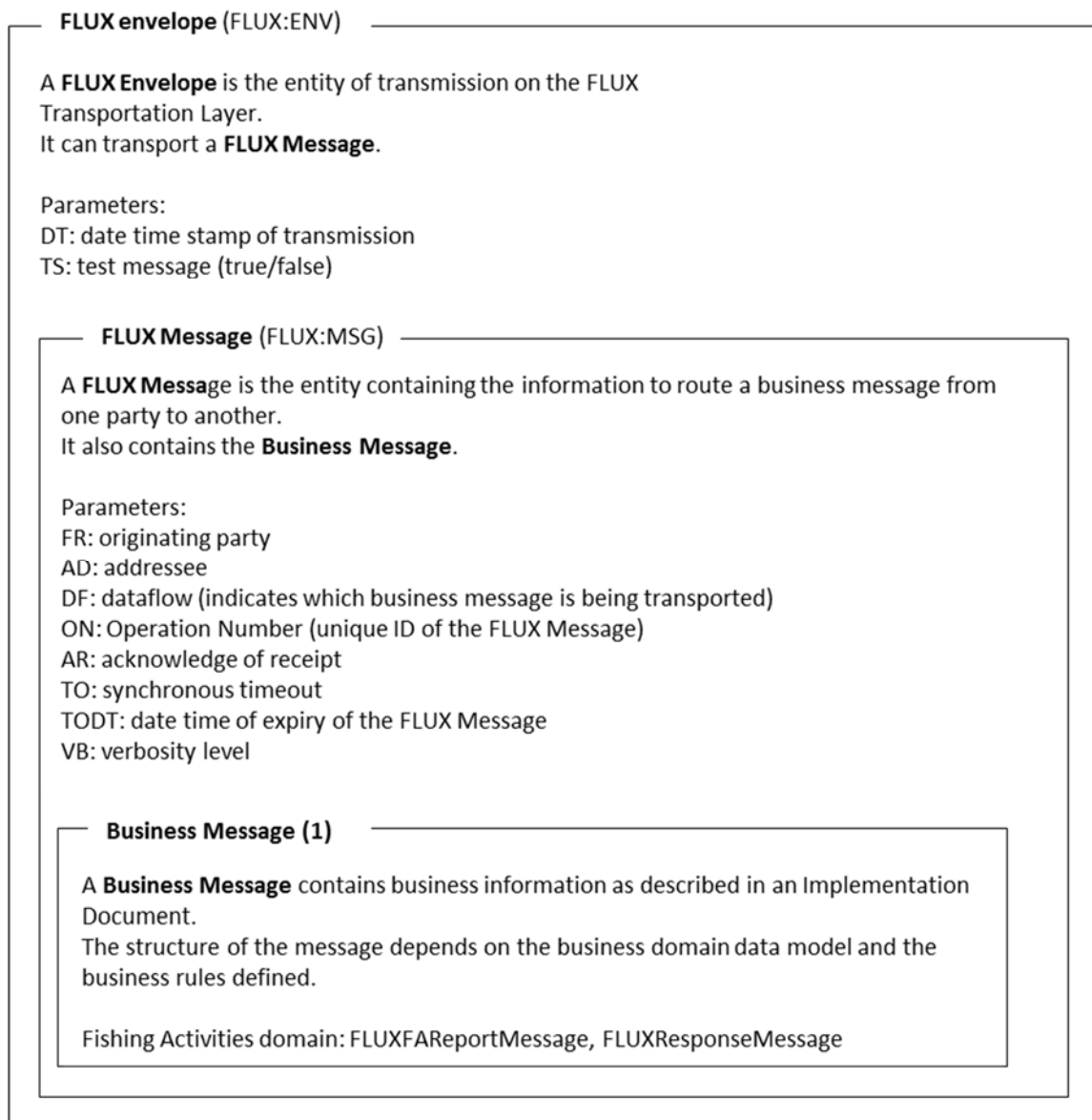
6. PROCEDURES

6.1. Assumptions

The exchange of the Fishing Activity Messages described in this document will be done through the FLUX Transportation Layer for which technical and functional documentations are published on the NEAFC Master Data Register (MDR) <https://www.neafc.org/mdr>².

The diagrams in figures 2 and 3 (see section 5.2) illustrate how Fishing Activity Messages are structured. The diagram in Figure 4 illustrates how these Fishing Activity Messages are encapsulated into a transportation layer envelope to be transported by FLUX TL.

Figure 4: Diagram showing how Fishing Activity Messages are encapsulated in the FLUX TL transportation layer envelope



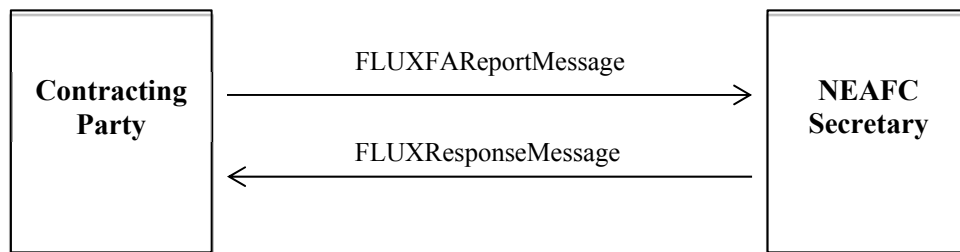
Furthermore, it is assumed that data exchanges are fully automated and immediate. No human approval or intervention should be needed for data exchanges and validation of well-formed messages for which the business rules are defined in this document.

6.2. General principles

The way to exchange Fishing Activity Reports between the Contracting Party and the NEAFC Secretary using the FLUX Transportation Layer is shown in the diagram below (Figure 5).

The Contracting Party transmits a FLUX FA Report Message containing one or more FA Report Documents to the NEAFC Secretary. The NEAFC Secretary acknowledges receipt of the FLUX FA Report Message with a FLUX Response Message.

Figure 5: Diagram showing message transmission between CP and NEAFC

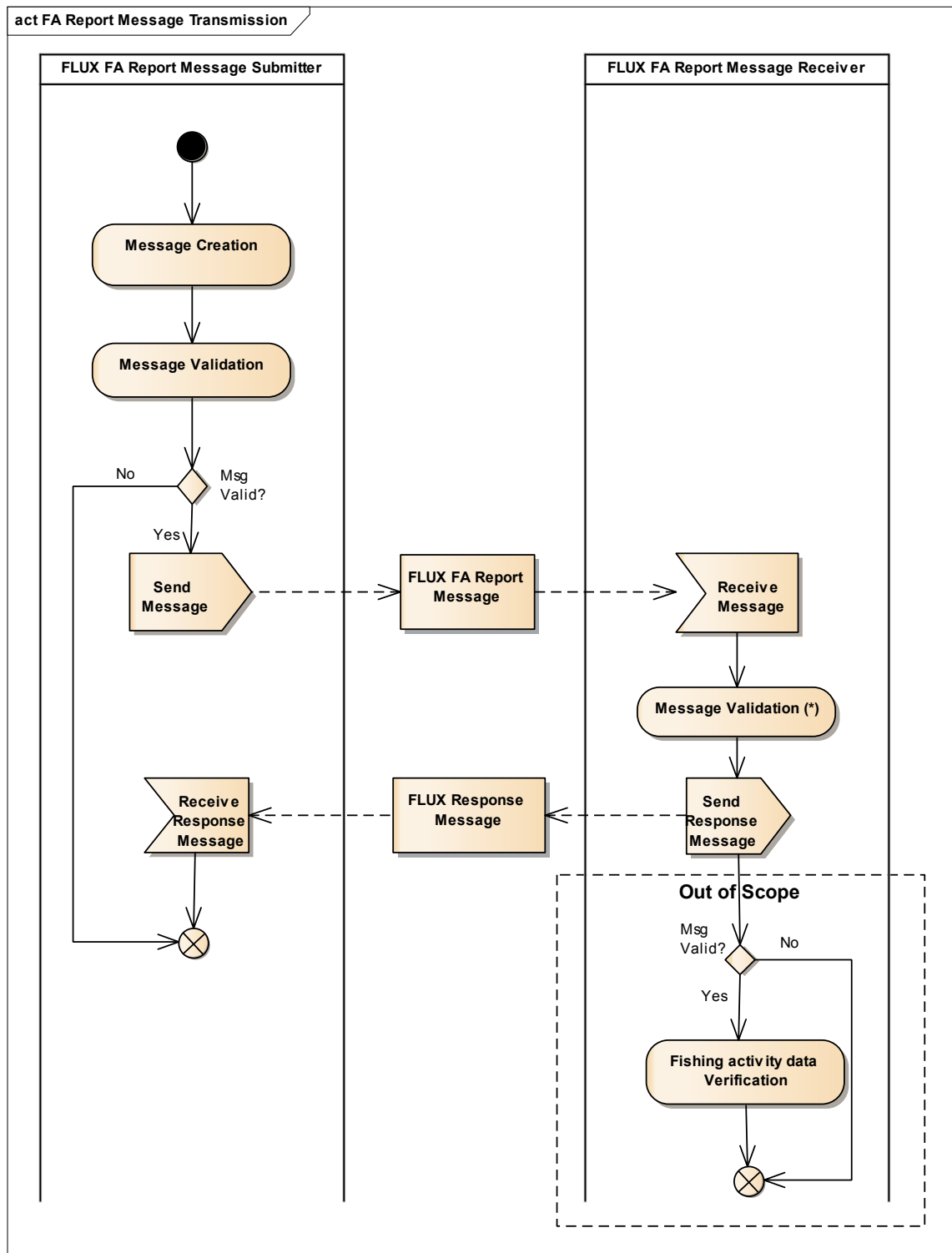


Where the NEAFC Secretary forwards fishing activity information it received to a Contracting Party, the roles in the diagram above are reversed.

The normal procedure for sending FLUX FA Report Messages between the Contracting Party and the NEAFC Secretary is described in Figure 6. This procedure respects the transmission procedure described in the FLUX General Principles document⁸ (chapter 6.3.1).

⁸ FLUX BRS: P1000 – 1; General principles. See chapter 4.

Figure 6: Message Transmission procedure



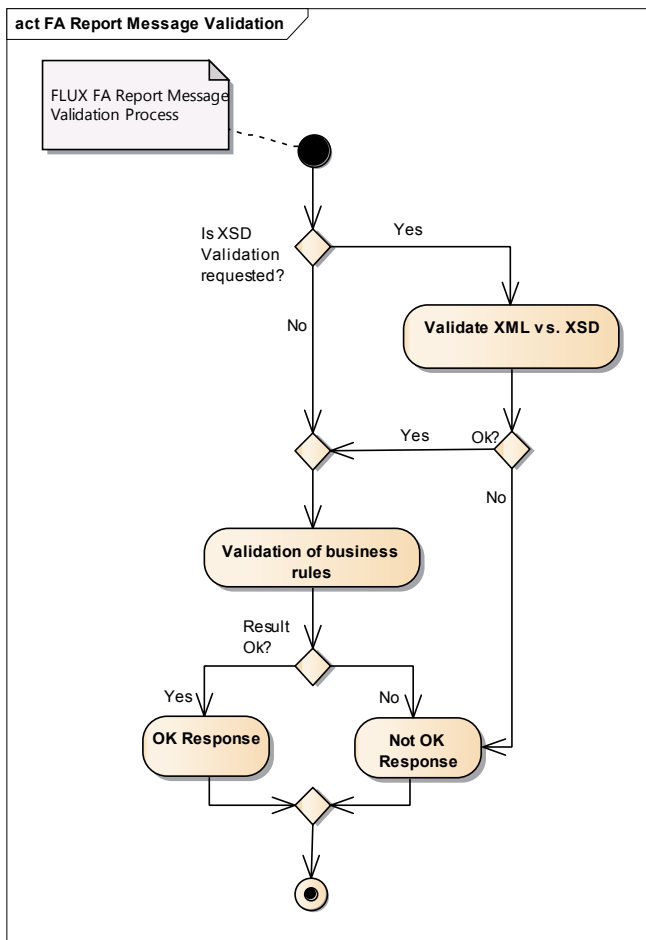
6.2.1. Business rules

FLUX FA Report Messages (messages) must be validated by the sender before transmitting and by the receiver when receiving.

There are 2 steps in the validation process (*) (Figure 7):

- (1) **XML Validation:** An XML parser validates the structure of the XML provided⁹ against the XSD¹⁰ of the UN/CEFACT FLUX standard. This includes verification of the cardinalities of data elements as described in the Fishing Activities BRS document¹¹.
- (2) **Business Rules Validation:** A Business Rules Engine (BRE) validates the information contained in the XML message against the data model requirements described in the implementation for NEAFC (chapter 7) and business rules defined for this business domain (chapter 8).

Figure 7: FLUX FA Report Message validation (detail of the process marked with * in Figure 6)



9 In general, only some data elements are defined as mandatory in the XSD. Attributes listID or schemeID remain optional unless otherwise specified.

10 The XSD considered for the validation process is specified in section "Fishing Activities UN/CEFACT XSD" in chapter 4.

11 FLUX BRS: P1000 – 3; Fishing Activity domain as referred to in chapter 4.

The validation process must apply as many business rules as possible, not stopping at the first failure.

Once the validation step is completed and a response message is sent back, the message could be further processed or forwarded. Any further data verification may be performed on the data contained in the message. This is out of scope of this implementation document (see Figure 6).

When the exchange in an automatic and immediate way is not possible or when exchanged messages cannot be understood by the receiver, the fall-back procedure must be engaged as described in chapter 6.5.

Fishing Activity Messages (FLUX FA Report Message) with an identifier previously received must be rejected by the receiver. For the purposes of this implementation, Fishing Activity Reports (FA Report Documents) with an identifier¹² previously received must be considered as identical¹³ and therefore it is not needed to perform the complete validation process again. A receiver may decide to perform the validation anyway.

6.2.2. Information on the errors or warnings in the Response message

The response message returned to the sender of the message will contain information on the acceptance or refusal of that message.

In case of errors or warnings, the list of the validation results will be returned, including the business rule numbers for which a rule was violated, an indication if this is an error or warning, and a reference to the entity on which the business rule failed. Details on how to implement this are provided in chapter 7.2.

Business rules that fail with an error must be considered as blocking issues that need to be corrected before the report can be (re-)transmitted by the sending party or accepted by the receiving party. One error causes the whole message to be rejected.

Business rules that fail with a warning are not to be considered blocking issues and hence messages generating only warnings cannot be rejected on that basis.

¹² FLUXReportDocument/ID related to the FAReportDocument entity.

¹³ NEAFC Scheme of Control and Enforcement, Annex IX D2c) defines duplicates in NEAFC context

6.3. Fishing Activity Messages

Validated Fishing Activity Messages (FLUX FA Report Message) shall be sent by the Contracting Party of the vessel to the NEAFC Secretary, according to the Scheme and the following principles (Detailed requirements are described in chapter 7.1):

6.3.1. Fishing activity information

- Fishing activity information (or fishing activities), as outlined in the Scheme, is recorded as Fishing Activity Reports (FA Report Document).
- Fishing Activity Reports are transmitted, individually or grouped together, within Fishing Activity Messages (FLUX FA Report Message).
- A Fishing Activity Report (FA Report Document) is uniquely identified and the identifier is assigned once at report creation time. Subsequent transmissions of the same fishing activity information must re-use the same report identifier.
- Fishing activity information on multiple fishing operations¹⁴ that occurred on the same day may be aggregated into one FA Report Document, either as one fishing operation with aggregated figures or with multiple fishing operations (hauls).
- There are two types of Fishing Activity Reports: Declaration and notification reports.
- Declarations and notifications may be corrected as many times as needed, in line with the provisions described in section 6.3.2. Notification reports may be cancelled only once, in line with the provisions described in section 6.3.3.
- FA Report Documents of the same vessel on the same fishing trip belong to the same electronic fishing logbook.

6.3.2. Corrections to fishing activity information

- Accepted declaration and notification reports may be corrected as outlined in the Scheme.
- A correction to fishing activity information is recorded in a FA Report Document and is also called "correction report". It has a unique identifier and a reference to the unique identifier of the FA Report Document being corrected.
- Correction reports replace the referenced FA Report Document completely and are considered as updates to the original fishing activity information.

¹⁴ Fishing operation as described in art. 12 of the Scheme

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- If information related to the catches (FACatch) in a notification report requires correction, a correction to the notification report must be sent. Corrected notifications remain notifications and do not change to declarations.
- Correction reports are part of the electronic fishing logbook.
- Correction reports must be transmitted without delay to the NEAFC Secretary if they relate to activities in the NEAFC Regulatory Area.

6.3.3. Cancellation of notification reports

- Accepted notification reports may be cancelled in case the activity being notified will no longer take place.
- If any information in the original notification report is incorrect, except when it is related to the catches on board or to be unloaded (FACatch), a cancellation report must be sent.
- A cancellation of a notification report is recorded in a FA Report Document. It has a unique identifier and a reference to the unique identifier of the FA Report Document being cancelled.
- Cancelled reports are no longer applicable. They remain part of the electronic fishing logbook however. In case the information contained in the cancelled report would need to be transmitted again, a new notification report must be sent. This new report will have no reference to any previous reports.
- Cancellations must be transmitted without delay to the NEAFC Secretary if they relate to activities intended to take place in the NEAFC Regulatory Area.

6.4. Response to Fishing Activity Messages

In response to a Fishing Activity Message (FLUX FA Report Message), exactly one (general principles) Response Message (FLUX Response Message) must be returned. It must be generated automatically and immediately, without human intervention. The recommended maximum delay for responding is 5 minutes.

The following general rules apply:

- The FLUX Response Message shall contain at least an acknowledgement of receipt and a reference to the unique identifier of the FLUX FA Report Message, provided the message is well-formed and valid XML according to the UN/CEFACT FLUX XSD¹⁵
- Specific business rules apply in case the FLUX FA Report Message is not valid or does not contain a valid unique identifier. These rules are specified in chapter 8.
- In case any of the business validation rules fail (see Figure 7 and chapter 8) with an error or warning, the complete validation results must be included in the response message (see chapter 7.2).
- The party receiving the validation results must take action to correct any issue and retransmit the correct information in a new report (in a new FLUX FA Report Message).
- A FLUX Response Message cannot be corrected nor cancelled.

6.5. Business continuity plan

A description of the business continuity plan, including fall back procedures, for the exchange of Fishing Activity information as outlined in the Scheme is available within the NEAFC Information Security Management System (ISMS) on the NEAFC web site <https://www.neafc.org/isms/article14-2>

¹⁵ A reference to the XSD considered for the validation process is specified in section "Fishing Activities UN/CEFACT XSD" in chapter 4.

7. DATA MODEL IMPLEMENTATION

7.1. FLUX FA Report Message

The FLUX FA Report Message is used to send fishing activity information recorded and transmitted by the master of a vessel carrying the flag of the Contracting Party to the NEAFC Secretary.

The structure of this message follows the data model of the FLUX Fishing Activities domain. Figure 8 shows the class diagram of this data model, adapted to NEAFC requirements. The different entities and their relationships are represented graphically.

The implementation of this data model follows the following general constraints at the level of XSD Element attributes:

- (1) For Code & Identifier DataType: *listID* or *schemeID* attribute must be provided respectively wherever specified in the definition of the element;
- (2) For DateTime DataType: only *udt:DateTime* (of type *xsd:dateTime*) choice is used. The date and time must be in line with ISO8601 and expressed in UTC, unless explicitly mentioned otherwise. The format shall be YYYY-MM-DDThh:mm:ss[.000000]Z¹⁶;
- (3) Measure DataType: the *unitCode* attribute shall be provided.

In the sections below the entities and attributes defined in the data model are described in greater detail including whether or not they are mandatory as well as the conditions that may apply. The entity and attribute names are those described in the Business Requirements Specification document¹⁷.

¹⁶ YYYY= year; MM= month, including leading 0 where month number is less than 10; DD= day of the month including leading 0 where day number is less than 10; T= the letter T to indicate the part of the time section; H24= hours of the day expressed with 2 digits using the 24-hour notation; Ml=minutes expressed as 2 digits; SS=seconds expressed as 2 digits; [.000000]= optionally fractions of seconds may be included up to 6 digits, not including the brackets; Z= time zone, which must be Z (i.e. UTC)

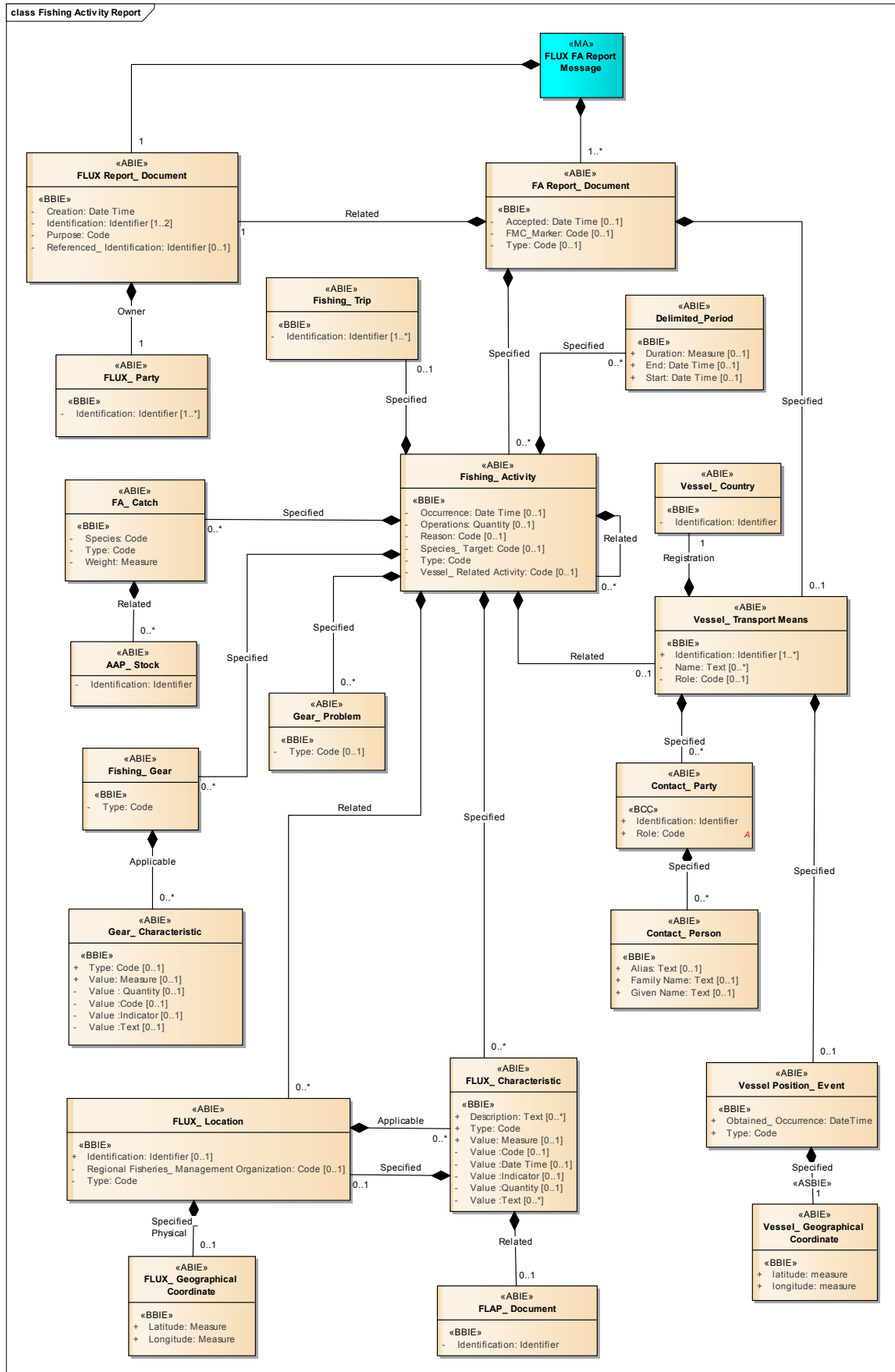
¹⁷ The BRS is the description of the UN/CEFACT FLUX standard. See section 4.

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Figure 8: Class Diagram for FLUX FA Report Message.

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7.1.1. FLUX FA Report Message

Description: A message containing fishing activity information. There can be one or more reports in a message. A definition and schematic view is provided in section 5.2.

Table 1: Data elements and attributes of FLUXFAReportMessage

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
FLUXReport_Document	Assoc. ¹⁸	1	1	The document details for this FLUX FA Report Message.	See data elements and attributes in Table 2.
FAReport_Document	Assoc.	1	*	The FAReportDocument contained in this FLUX FA Report Message.	The logbook line containing fishing activity information. See data elements and attributes in Table 4.

Table 2: Data elements and attributes of FLUXReportDocument related to a FLUXFAReportMessage

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	The Global Unique Identifier of the FLUX FA Report Message	<i>schemeID=UUID</i> ¹⁹ as defined in the RFC 4122. Once the message is created, the data contained in the message remains associated with this identifier. Within the context of this implementation document the UUID is treated case insensitive.
Purpose	Code	1	1	The code specifying the purpose of this FLUX FA Report Message.	<i>listID= FLUX_GP_PURPOSE</i> Always use 9 ²⁰ . There are no corrections or deletions possible for this FLUXFAReportMessage.
Creation	DateTime	1	1	The UTC date and time, of the creation of this FLUX FA Report Message.	Must be according to the definition provided in 7.1(2).
OwnerFLUX Party	Assoc.	1	1	The party owning this FLUX FA Report Message.	The party creating/transmitting the FLUX FA Report Message. See data elements and attributes in Table 3.

¹⁸ Association between 2 entities.

¹⁹ Example: FE52A3BA-6C5A-4C87-BE15-CC19A3023DB1 (see also <http://www.guidgenerator.com> for more examples)

²⁰ Reference: Edifact (qDT UN02000125 - Message Function_Code).

Table 3: Data elements and attributes of FLUXParty related to a FLUXFAReportMessage

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	The identifier of the FLUX party, creating and transmitting the message.	<i>schemeID</i> = FLUX_GP_PARTY ISO-3 letter code of the party creating and transmitting the FLUXFAReportMessage.

7.1.2. FA Report Document

Description: A report containing fishing activity information. A definition and schematic view is provided in section 5.2

Table 4: Common data elements and attributes for all FAReportDocuments

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	0	1	Type of FAReportDocument	"Notification" is a report of a future activity; "Declaration" is a report of a past activity. <i>ListID=FLUX_FA_REPORT_TYPE</i> Use value=NOTIFICATION in case the FAReportDocument is a notification of an activity that will take place in the (near) future. Use DECLARATION in case the FAReportDocument is a declaration of an activity that currently takes place or has taken place in the past Optional in case of a deletion report.
Acceptance ²¹	DateTime	1	1	The UTC date and time of acceptance of the information by the FMC.	Must be according to the definition provided in 7.1(2).
FMC_Marker	Code	0	1	Marking set by the FMC to indicate intervention by the FMC in the creation or modification of the report	listID=FLUX_FA_FMC Mandatory in case the report has been delayed, corrected/cancelled or generated manually by the FMC.
RelatedFLUX Report_Document	Assoc.	1	1	The document details for this FA Report Document (the report)	Common entity containing details about report (such as the identifier). See data elements and attributes in Table 5 .
Specified Fishing_Activity	Assoc.	0	*	Actual information about the fishing activity/ies reported in this FA Report Document	Typically a FA Report Document contains only one Fishing Activity entity, however - for haul-by-haul recording transmitted daily, there may be multiple instances of the "Fishing Activity" entity with TypeCode "FISHING_OPERATION". - if the FA Report Document is a cancellation (PurposeCode=1), there is no "Fishing Activity" entity included in the report. <u>Note:</u> Corrections to reports replace the whole report, including all "Fishing Activity" entities included in it (see section 6.3.2)..

²¹ Note that date and time of transmission by the vessel as recorded by the on-board system cannot be provided as a separate data element in this version of the UN/FLUX standard and corresponding XSD used for this Implementation Document. The issue will be addressed by updating the UN/FLUX standard and will be included in an Implementation Document corresponding to that version of the standard.

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Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
					See data elements and attributes in sections 7.1.3 to 7.1.9.
Specified Vessel_Transport Means	Assoc.	0	1	Information about the reporting vessel	Relevant information about the fishing vessel reporting this activity. Optional in case of a cancellation report. See data elements and attributes in Table 17.

Table 5: Data elements and attributes of a FLUXReportDocument related to a FAREportDocument

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	2	Unique identification of the fishing activity report.	At least one occurrence of ID with <i>schemeID</i> =UUID as defined in the RFC 4122 must be provided. Once the message is created, the data contained in the message remains associated with this identifier. Within the context of this implementation document the UUID is treated case insensitive. Optionally a second occurrence with <i>schemeID</i> =NEAFC_SQ A sequence number, unique per vessel within the calendar year, starting at 1. Format: NNNNNN
Purpose	Code	1	1	The code specifying the purpose of this FLUX Fishing Activity Report.	Creation, correction or cancellation of a report as described in chapter 6.3. <i>listID</i> = FLUX_GP_PURPOSE ²² Use 9 to send original data for the first time. Use 5 in case this report is an update or a correction of a previously (accepted) report. Use 1 in case the activity notification reported in the referenced report is to be cancelled.
Creation	DateTime	1	1	The UTC date and time of the creation of this FLUX FA Report document.	Date and time of creation of the report by the FMC. Must be according to the definition provided in 7.1(2).
Referenced_ Identification	Identifier	0	1	The identifier of a referenced FLUX Fishing Activity Report	<i>schemeID</i> =UUID as defined in the RFC 4122. A UUID number, for which an update or cancelation is being sent. Mandatory if the FAREportDocument is a correction or cancellation of an accepted report.
OwnerFLUX_ Party	Assoc.	1	1	The party owning this FA Report Document (report).	Reference to the party creating the report. See data elements and attributes in Table 6.

²² Reference: Edifact (qDT UN02000125 - Message Function_Code).

Table 6: Data elements and attributes of FLUXParty related to a FLUXFAReportDocument

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	The identifier of the FLUX party, creating the report.	<i>schemeID</i> = FLUX_GP_PARTY ISO-3 code of the Flag State FMC.

7.1.3. Prior Notification of Entry

The table below shows the data elements and attributes that must be provided for a Prior Notification of Entry report as outlined in article 12 of the Scheme.

The descriptions of the common data elements and attributes for all FAReport_Documents apply (Table 4). The TypeCode of the FAReport_Document must have the value "NOTIFICATION".

Table 7: Data elements and attributes of a Fishing Activity of type Entry into area

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	A code describing the type of Fishing_Activity	<i>listID</i> =FLUX_FA_TYPE <i>value</i> = AREA_ENTRY
SpecifiedFishing_Trip	Assoc.	0	1	The reference to the trip in which this activity took place.	Optional. See data elements and attributes in Table 25.
RelatedFLUX_Location	Assoc.	1	*	The area being entered.	At least one occurrence of Type=AREA to indicate that the NEAFC Regulatory Area (NEAFC_RA) is being entered. See data elements and attributes in Table 26. <i>Remark: The position at time of transmission from the vessel is provided as part of the VesselTransportMeans entity (Table 19) and should not be reported here.</i>
SpecifiedFA_Catch	Assoc.	1	*	The catch on board the vessel at the time of transmission	Quantity on board by species at the time of transmission, expressed in kg live weight. Use type=ONBOARD for catches kept on board. See data elements and attributes in Table 22
Reason	Code	1	1	Planned activity	<i>listID</i> =FA_REASON_ENTRY
Species_Target	Code	0	1	The code specifying the directed species when in the area	<i>listID</i> =FAO_SPECIES FAO species code of the target species

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Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
					Mandatory where the planned activity is fishing (FIS)
RelatedFishing_Activity	Assoc.	0	1	Activity detail: Information related to the predicted start of activities within the area	See data elements and attributes in Table 8. Mandatory in case the planned activity is fishing (FIS) or transshipment (TRX).

7.1.3.1. The use of a sub-activity in the context of an Prior Notification of Entry

A sub-activity is used in order to report activity details related to the start of the operations within the area being entered.

There cannot be more than one level of sub-activity.

Table 8: Data elements and attributes of the sub-activity START_ACTIVITY

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	A code describing the type of Fishing sub-Activity	<i>listID</i> =FLUX_FA_TYPE Use value=START_ACTIVITY.
Occurrence	DateTime	1	1	The estimated UTC date and time of the start of the planned activity	Must be according to the definition provided in 7.1(2).
RelatedFLUX_Location	Assoc.	1	*	A FLUX_Location related to this fishing sub-activity	Use at least one FLUX_Location of type=POSITION to specify the estimated position where the planned activity will take place. Optionally, use a FLUX_Location of type=AREA to describe the Management Area where the master intends to commence fishing. See data elements and attributes in Table 26.

7.1.4. Fishing Operation declaration

The table below shows the data elements and attributes that must be provided for a fishing operation report as outlined in article 12 of the Scheme.

The descriptions of the common data elements and attributes for all FAReport_Documents apply (Table 4). The TypeCode of the FAReport_Document must have the value "DECLARATION".

Table 9: Data elements and attributes of a Fishing Activity of type Fishing Operation

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	A code describing the type of Fishing_Activity	<i>listID</i> =FLUX_FA_TYPE value=FISHING_OPERATION
Occurrence	DateTime	0	1	UTC (start) date and time when catches were taken or for which a NIL catch is reported.	Mandatory when reporting daily aggregated catches (this means no RelatedFishingActivity entities are present). The time is optional and may be set to zero ²³ in such case. Must be according to the definition provided in 7.1(2).
Vessel_Related Activity	Code	1	1	The code specifying the main activity of the vessel in the reported period	<i>listID</i> =VESSEL_ACTIVITY
Operations	Quantity	0	1	The number of fishing operations aggregated in the report.	Mandatory in case of daily aggregated reporting
SpecifiedFishing_Trip	Assoc.	0	1	The reference to the trip in which this activity took place.	Optional. See data elements and attributes in Table 25.
SpecifiedFA_Catch	Assoc.	0	*	The catch caught and kept on board the vessel and the discards where applicable	Mandatory where a fishing operation has taken place. In case catches were taken the figures are expressed in kg live weight. Use type=ONBOARD for catches kept on board. See data elements and attributes in Table 22.
RelatedFLUX_Location	Assoc.	0	*	The location where the activity took place (where most of the catch was taken)	Use type=AREA to report catches per relevant geographical area(s) (up to ICES division) and ICES statistical rectangle. Management area where the catches were taken. Mandatory for fisheries where management measures require it.

²³ The data element used to report this information in the UN/FLUX schema, *udt:DateTime* (xsd:dateTime type), requires the time component to be included.

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Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
					See data elements and attributes in Table 26.
Specified Delimited_Period	Assoc.	0	1	Duration of the fishing operation(s) in minutes	Mandatory where a fishing operation has taken place. Use <i>unitCode=MIN</i> (minutes). See data elements and attributes in Table 32.
SpecifiedFishing_Gear	Assoc.	0	1	Fishing gear details for this fishing activity.	Mandatory where a fishing operation has taken place Reporting in line with art. 12.3 of the Scheme. See data elements and attributes in Table 29.
SpecifiedGear_Problem	Assoc.	0	*	A gear problem specified for this fishing activity.	Mandatory in case a gear problem occurred. See data elements and attributes in Table 31.
Related Vessel_Transport Means	Assoc.	0	*	The (other) vessel(s) involved in this fishing operation	Mandatory when pumping from another vessel's gear or when performing pair fishing. Mandatory to report both the roles of the related and reporting vessels if a related vessel is reported. For pair fishing use <i>RoleCode=PAIR_FISHING_PARTNER</i> . For pumping operation use <i>RoleCode DONOR</i> See data elements and attributes in Table 17.
RelatedFishing_Activity	Assoc.	0	*	Details about the haul.	Mandatory when reporting catches haul by haul. One related activity for gear shot and one for gear retrieval. See data elements and attributes in Table 10.

7.1.4.1. The use of a sub-activity of a fishing operation

Sub-activities "gear shot" and "gear retrieval" are used when reporting catches haul by haul. There cannot be more than one level of sub-activities; i.e. RelatedFishingActivity entity cannot have a RelatedFishingActivity entity attached to it.

Table 10: Data elements and attributes of a sub-activity of a fishing operation

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	A code describing the type of Fishing sub-Activity	<i>listID</i> =FLUX_FA_TYPE Use value=GEAR_SHOT or GEAR_RETRIEVAL for gear shot and gear retrieved.
Occurrence	DateTime	1	1	UTC date and time of the start (in case of GEAR_SHOT) or end (in case of GEAR_RETRIEVAL) of the operation	Must be according to the definition provided in 7.1(2).
RelatedFLUX_Location	Assoc.	1	*	The start (GEAR_SHOT) or end (GEAR_RETRIEVAL) position of the fishing operation.	Use Type=POSITION to describe the location where the sub-activity takes place. In case of GEAR_SHOT also specify a FLUX_Location of type=AREA to report the management area where the catch was taken. This is mandatory where specific management measures require it. See data elements and attributes in Table 26.
SpecifiedFLUX_Characteristic	Assoc.	0	*	A characteristic specified for this fishing activity.	Mandatory where specific management measures require it. <i>listID</i> =FA_CHARACTERISTIC Use value FISHING_DEPTH to specify the depth when gear is fully shot (in case of GEAR_SHOT) and before start hauling (in case of GEAR_RETRIEVAL). Use value BOTTOM_DEPTH to specify the depth between surface and sea bed at start position (in case of GEAR_SHOT) and end position (in case of GEAR_RETRIEVAL). See data elements and attributes in Table 28.

7.1.4.2. The use of Gear_Characteristics to be specified when deploying gear

The gear characteristics to be provided when deploying each gear type are described in Annex (section 14.1).

7.1.5. Discard declaration

The table below shows the data elements and attributes that must be provided for a discard report.

The descriptions of the common data elements and attributes for all FAReport_Documents apply (Table 4). The TypeCode of the FAReport_Document must have the value "DECLARATION".

Table 11: Data elements and attributes of a Fishing Activity of type Discard

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	A code describing the type of Fishing_Activity	<i>listID</i> =FLUX_FA_TYPE value=DISCARD
Occurrence	DateTime	1	1	Start date and time of the operation in UTC	Must be according to the definition provided in 7.1(2). When reporting daily aggregated discards, the date is sufficient. In that case the time part may be set to zero.
Reason	Code	1	1	Reason for discard	<i>listID</i> =FA_REASON_DISCARD
SpecifiedFishing_Trip	Assoc.	0	1	The reference to the trip in which this activity took place.	Optional See data elements and attributes in Table 25.
SpecifiedFA_Catch	Assoc.	1	*	The catches discarded during this operation	Use Type=DISCARDED to record discards of catches Specify the live weight in kg. See data elements and attributes in Table 22
RelatedFLUX_Location	Assoc.	1	*	A FLUX_Location related to this fishing activity	See data elements and attributes in Table 26.
SpecifiedFLUX_Characteristic	Assoc.	0	1	A textual description of the reason for discard	Optional. Can be used in case the reason for discard is "OTH" (other) See data elements and attributes in Table 12.

Table 12: Data elements and attributes of FLUX_Characteristic when used in a discard activity

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	The type of FLUX characteristic	<i>ListID</i> =FA_CHARACTERISTIC Use value=REMARK
Value	Text	1	1	A textual description of the reason for discard	

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7.1.6. Report of transshipment (by donor)

The table below shows the data elements and attributes that must be provided for a transshipment notification report (by donor) as outlined in article 13 of the Scheme.

The descriptions of the common data elements and attributes for all FAReport_Documents apply (Table 4). The TypeCode of the FAReport_Document must have the value "NOTIFICATION". In this case the reporting vessel (FAReport_Document/SpecifiedVessel_TransportMeans) has the role "DONOR".

Table 13: Data elements and attributes of a prior notification of transshipment (unloading)

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	A code describing the type of FishingActivity	<i>listID=FLUX_FA_TYPE</i> Use value=TRANSHIPMENT
Occurrence	DateTime	1	1	Estimated start date and time of the operation	Must be according to the definition provided in 7.1(2).
SpecifiedFishing_Trip	Assoc.	0	1	The reference to the trip in which this activity took place.	See data elements and attributes in Table 25.
RelatedFLUX_Location	Assoc.	1	*	The predicted position where the operation will take place	Specify Type=POSITION to specify the position of the transshipment. See data elements and attributes in Table 26.
SpecifiedFA_Catch	Assoc.	1	*	The catches intended to be unloaded during this operation or catches prior to unloading.	Use type=ONBOARD for catches on board prior to the transshipment. Use type=UNLOADED in case of unloading. Specify live weights in kg. See data elements and attributes in Table 22.
Related Vessel_Transport Means	Assoc.	1	1	Relevant information about the receiving vessel involved in this unloading operation.	Use role=RECEIVER See data elements and attributes in Table 17.

7.1.7. Report of transshipment (by receiver)

The table below shows the data elements and attributes that must be provided for a transshipment declaration report (by receiver) as outlined in article 13 of the Scheme.

The descriptions of the common data elements and attributes for all FAReport_Documents apply (Table 4). The TypeCode of the FAReport_Document must have the value "DECLARATION". In this case the reporting vessel (FAReport_Document/SpecifiedVessel_TransportMeans) has the role "RECEIVER".

Table 14: Data elements and attributes of a Fishing Activity of type Transshipment (loading)

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	A code describing the type of FishingActivity	<i>listID=FLUX_FA_TYPE</i> Use Value=TRANSHIPMENT
Specified Delimited_Period	Assoc.	1	1	The end date and time of the transshipment	At least the end date/time is mandatory. The end date/time is the date and time of completion of the transshipment. See data elements and attributes in Table 32.
SpecifiedFishing_Trip	Assoc.	0	1	The reference to the trip in which this activity took place.	Optional. See data elements and attributes in Table 25.
RelatedFLUX_Location	Assoc.	1	*	A FLUXLocation related to this fishing activity	Type=POSITION to specify the exact position of the transshipment. See data elements and attributes in Table 26.
SpecifiedFA_Catch	Assoc.	1	*	The catches transhipped during this operation or on board after the transshipment	Use Type=LOADED in case of loading of catches. Use Type=ONBOARD to indicate the total catch on board after completion of the operation. Specify live weights (kg). See data elements and attributes in Table 22.
RelatedVessel_TransportMeans	Assoc.	1	1	The other vessel involved in this transshipment	Use role DONOR. See data elements and attributes in Table 17.

7.1.8. Prior Notification of Exit

The table below shows the data elements and attributes that must be provided for a Prior Notification of Exit report as outlined in article 12 of the Scheme.

The descriptions of the common data elements and attributes for all FAREport_Documents apply (Table 4). The TypeCode of the FAREport_Document must have the value "NOTIFICATION" in this case.

Table 15: Data elements and attributes of a Fishing Activity of type Exit from area

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	A code describing the type of Fishing_Activity	<i>listID</i> =FLUX_FA_TYPE value= AREA_EXIT
Occurrence	DateTime	0	1	Date and time of exit	Must be according to the definition provided in 7.1(2).
SpecifiedFishing_Trip	Assoc.	0	1	The reference to the trip in which this activity took place.	See data elements and attributes in Table 25.
RelatedFLUX_Location	Assoc.	1	*	The area being exited.	At least one occurrence of Type=AREA to indicate that the NEAFC Regulatory Area is being exited. Optionally one occurrence of Type=POSITION to report the estimated position at time of exit. See data elements and attributes in Table 26.
SpecifiedFA_Catch	Assoc.	1	*	The catch on board the vessel at the time of exit	Mandatory. Weights expressed in kg live weight. Use type=ONBOARD for catches kept on board. If no catch is on board, nil catches should be reported. See data elements and attributes in Table 22.

7.1.9. Port of landing report

The table below shows the data elements and attributes that must be provided for a Port of Landing report as outlined in article 13 of the Scheme.

The descriptions of the common data elements and attributes for all FAReport_Documents apply (Table 4). The TypeCode of the FAReport_Document must have the value "NOTIFICATION".

Table 16: Data elements and attributes of a Fishing Activity of type Notification of Arrival

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	A code describing the type of FishingActivity	<i>listID</i> =FLUX_FA_TYPE value=ARRIVAL
Occurrence	DateTime	1	1	Estimated date and time of arrival.	Must be according to the definition provided in 7.1(2).
Reason	Code	1	1	The code specifying the reason for the arrival/returning to port	<i>listID</i> = FA_REASON_ARRIVAL value=LAN
SpecifiedFishing_Trip	Assoc.	0	1	The reference to the trip in which this activity took place.	Optional See data elements and attributes in Table 25.
RelatedFLUX_Location	Assoc.	1	*	The port of landing.	The (intended) port of arrival Use Type=LOCATION when the vessel intends to arrive in a port or other location available on the location list in MDR. Where available the landing site shall be provided as well. See data elements and attributes in Table 26.
SpecifiedFA_Catch	Assoc.	1	*	The catch on board the vessel at the time of notification	Mandatory. Use Type= "ONBOARD" for the catches on board at the time of notification. Use Type= "UNLOADED" for the catches to be unloaded. See data elements and attributes in Table 22.

7.1.10. Common entities

7.1.10.1. *Vessel_TransportMeans* entity

Description: Entity used to provide information on a vessel.

Table 17: Data elements and attributes of Vessel_Transport_Means (Vessel domain)

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Role	Code	0	1	The role of the vessel in the operation	Mandatory for both reporting and related vessel in case the report contains an activity with a RelatedVesselTransportMeans. <i>ListID=FA_VESSEL_ROLE</i> Use value PAIR_FISHING_PARTNER if the vessel is a pair fishing partner in the fishing operation. Use value DONOR to indicate the donor vessel in a loading operation or a notification of loading. Use value RECEIVER to indicate the receiving vessel in an unloading operation or notification of unloading
Identifier	Identifier	1	*	An identifier for this vessel	For the reporting vessel: At least 2 vessel IDs of which one is <i>schemeID=IRCS</i> & Value= IRCS number must be provided. The other shall be <i>schemeID=UVI</i> where IMO is applicable to the vessel ²⁴ ; alternatively the contracting party reference number (REG_NBR) as flag state 3-alpha country code followed by alphanumeric characters. For the other vessel involved in the operation <i>schemeID=IRCS</i> . Optionally other values including their <i>schemeID</i> , insofar the <i>schemeID</i> is present in the MDR list FLUX_VESSEL_ID_TYPE. E.g. EXT_MARK
Name	Text	0	1	A name, expressed as text, of the vessel	Optional
Registration Vessel_Country	Assoc.	1	1	Identification of the flag state	See data elements and attributes in Table 18.
Specified Contact_Party	Assoc.	0	1	Reference to information related to the master of the vessel	Mandatory for the reporting vessel. See data elements and attributes in Table 20.

²⁴ Annex IV(a) of the Scheme: Radio Call sign and IMO number is required, where IMO is not applicable (for Vessels under IMO resolution A.1078 (28)), use of either CP Internal reference number or Vessel external registration is required.

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Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
SpecifiedVessel_PositionEvent	Assoc.	0	1	The position of the vessel at time of transmission.	Mandatory when used in relation to FishingActivity/TypeCode= AREA_ENTRY. See data elements and attributes in Table 19.

7.1.10.2. *Vessel_Country* entity

Description: Entity used to provide information on the registration location of the vessel (flag state).

Table 18: Data elements and attributes of Vessel_Country (Vessel domain)

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identifier	Identifier	1	1	An identifier for the flag state	ISO-3 code of the Flag State. <i>schemeID= TERRITORY</i>

7.1.10.3. *Vessel_PositionEvent* entity

Description: Entity used to provide information on the location of the vessel at time of transmission of activity reports.

Table 19: Data elements and attributes of Vessel_PositionEvent (Vessel domain)

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Obtained Occurrence	DateTime	1	1	Date and time when the specified position was obtained.	Date and time of transmission from the vessel (needed for control and enforcement for reports with explicit timelines) Must be according to the definition provided in 7.1(2).
Type	Code	1	1	The type of position	ListID = FLUX_VESSEL_POSITION_TYPE Use value POS only.
SpecifiedVessel_Geographical Coordinate	Assoc.	1	1	Geographical coordinate information of the position event	Same definition as FLUXGeographicalPosition. See Table 27.

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7.1.10.4. *Contact_Party entity*

Description: An individual, a group, or a body having a role as a contact

Table 20: Data elements and attributes of Contact_Party (Vessel domain)

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Role	Code	1	1	A code specifying the role of this contact party	<i>listID</i> = FLUX_CONTACT_ROLE Value must be MASTER
Specified Contact_Person	Assoc.	1	1	A specified person for this contact party.	Name of the master of the vessel See data elements and attributes in Table 21.

7.1.10.5. *Contact_Person entity*

Description: The details of a contact person.

Both the GivenName and FamilyName must be provided or an Alias.

Table 21: Data elements and attributes of Contact_Person (Vessel domain)

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
GivenName	Text	0	1	Given name of the master	Required when specifying FamilyName and if Alias is not specified.
FamilyName	Text	0	1	Family name of the master	Required when specifying GivenName and if Alias is not specified.
Alias	Text	0	1	An alias to identify the master	If GivenName and FamilyName are not provided.

7.1.10.6. *FA_Catch entity*

Description: Fishing Activity (FA) information about the species and quantity.

Table 22: Data elements and attributes of FACatch entity

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	The code specifying a type of catch, such as retained on board.	<i>listID=FA_CATCH_TYPE</i>
Species	Code	1	1	The FAO species code.	<i>listID=FAO_SPECIES</i> For nil catches the species code "MZZ" may be used or target species.
Weight	Measure	1	1	The <u>live</u> weight (kg) of the reported catch.	<i>unitCode=KGM</i> 0 for nil catches
SpecifiedSize_Distribution	Assoc.	0	1	The size distribution specified for the catch.	Optional. Not applicable when used in relocations used as sub-activity. See data elements and attributes in Table 23.
RelatedAAP_Stock	Assoc.	0	1	The stock specification.	Mandatory if the catches caught belong to a stock listed in NEAFC Recommendation 02:2011 (as amended) ²⁵ . See data elements and attributes in Table 24.

7.1.10.7. *Size_Distribution entity*

Description: The size distribution specified for the FA_catch.

Table 23: Data elements and attributes of Size_Distribution

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Class	Code	1	1	The code specifying the size class	<i>ListID= FISH_SIZE_CLASS</i> Use value "LSC" for legally sized fish. Use value "BMS" for fish below minimum conservation reference size.

²⁵ Annex IV(a) of the Scheme.

7.1.10.8. *AAP_Stock*

Table 24: Data elements and attributes of AAPStock entity

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	Identification of the stock.	<i>SchemeID</i> = FA_NEAFC_STOCK ²⁶

7.1.10.9. *Fishing_Trip*

Description: The fishing trip to which the fishing activity belongs.

Table 25: Data elements and attributes of the FishingTrip entity

Entity/Field Name	DataType	Cardinality		Description	Remarks
Identification	Identifier	1	*	The unique identifier of the fishing trip	The <i>schemeID</i> of the identifier must always be provided. The value must be on the code list FA_TRIP_ID_TYPE. At most one occurrence of ID for a given <i>schemeID</i> . E.g. <i>schemeID</i> =NEAFC_TN

7.1.10.10. *FLUX_Location entity*

Description: Entity providing information of a physical location or place where the activity takes place or where catches are taken.

Table 26: Data elements and attributes of FLUXLocation

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	The code specifying the type of FLUX location.	<i>ListID</i> =FLUX_LOCATION_TYPE Use POSITION to report activities or catches at a certain geographical location. Use AREA to report catches per relevant geographical area or to indicate the relevant area for the activity. Use LOCATION if the location of the activity is a port or other location defined on the LOCATION list in MDR

²⁶ Annex III of Recommendation 2–2011 as amended by recommendations 14–2013 17–2015 and 13–2016.

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Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	0	1	The identifier for this FLUX location.	<p>Mandatory if TypeCode=AREA: <i>schemeID</i>=FAO_AREA up to the ICES division. <i>schemeID</i>=STAT_RECTANGLE where available <i>schemeID</i>=TERRITORY for EEZ <i>schemeID</i>=MANAGEMENT_AREA for locations taking place in areas e.g. managed by RFMOs</p> <p>Mandatory if TypeCode=LOCATION: For ports and other defined locations use: <i>schemeID</i>=LOCATION</p> <p>If the location is not in the MDR code list, use the closest relevant MDR location. In such case it is recommended to use in addition a FLUXLocation of Type=POSITION to specify the exact position.</p>
RegionalFisheries Management Organisation	Code	0	1	The code specifying the organization managing fisheries of this FLUX location.	<i>listID</i> =RFMO
SpecifiedFLUX_Geographical Coordinate	Assoc.	0	1	Geographical coordinates information.	Mandatory if TypeCode=POSITION See Table 27.
ApplicableFLUX_Characteristic	Assoc.	0	1	Landing site	<p>Name of the buyer or other specifications describing exactly where in the port the landing will take place.</p> <p>Mandatory if available for a notification of arrival with the intention to land catches caught in the NEAFC RA.</p> <p>Use TypeCode=LANDING_SITE (value from code list FA_LOCATION_CHARACTERISTIC)</p>

7.1.10.11. *FLUX_GeographicalCoordinate* entity

Description: Entity providing information of the latitude and longitude of a specified place, by which a location's relative situation on the globe is known.

Table 27: Data elements and attributes of FLUXGeographicalCoordinate

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Longitude	Measure	1	1	The measure of the longitude as an angular distance east or west from the Greenwich meridian to the meridian of a specific place for this FLUX location geographical coordinate	Coordinate expressed in WGS84, decimal degree notation, using a precision of at least 3 decimal positions. Positive coordinate refers to East of Greenwich meridian. Negative coordinate refers to West.
Latitude	Measure	1	1	The measure of the latitude as an angular distance east or west from the Greenwich meridian to the meridian of a specific place for this FLUX location geographical coordinate.	Coordinate expressed in WGS84, decimal degree notation, using a precision of at least 3 decimal positions. Positive coordinate refers to North of equator. Negative coordinate refers to South.

7.1.10.12. *FLUX_Characteristic entity*

Description: Entity used to provide information of a prominent attribute or aspect of another FLUX entity.

Table 28: Data elements and attributes of FLUX_CHARACTERISTIC

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	The code specifying the characteristic	When used in data element FLUX_Location <i>listID</i> =FLUX_LOCATION_CHARACTERISTIC When used in data element Fishing Activity <i>listID</i> = FA_CHARACTERISTIC
Value	Measure	0	1	The measure of the value for this FLUX characteristic.	If UN_DATA_TYPE ²⁷ for the characteristic (specified in FLUXCharacteristic/TypeCode) is MEASURE or NUMBER. Attribute <i>unitCode</i> must be set. The unitCode should be defined in the list FLUX_UNIT.
Value	DateTime	0	1	The value, expressed as a date, time, date time, or other date time value, of this FLUX characteristic.	If UN_DATA_TYPE ²⁷ for the characteristic (specified in FLUXCharacteristic/TypeCode) is DATETIME. Must be according to the definition provided in 7.1(2).
Value	Indicator	0	1	The value, expressed as an indicator, for this FLUX characteristic.	If UN_DATA_TYPE ²⁷ for the characteristic (specified in FLUXCharacteristic/TypeCode) is BOOLEAN.
Value	Code	0	1	The code specifying a value of this FLUX characteristic.	If UN_DATA_TYPE ²⁷ for the characteristic (specified in FLUXCharacteristic/TypeCode) is CODE. Attribute <i>listID</i> must be set. Use value of an existing code list on MDR.
Value	Text	0	1	A value, expressed as text, of this FLUX characteristic.	If UN_DATA_TYPE ²⁷ for the characteristic (specified in FLUXCharacteristic/TypeCode) is TEXT.
Value	Quantity	0	1	The value, expressed as a quantity, for this FLUX characteristic.	If UN_DATA_TYPE ²⁷ for the characteristic (specified in FLUXCharacteristic/TypeCode) is QUANTITY.
RelatedFLAP_Document	Assoc.	0	1	The Fishing Licence, Authorization or Permit (FLAP) specified for this FLUX characteristic.	If UN_DATA_TYPE ²⁷ for the characteristic (specified in FLUXCharacteristic/TypeCode) is FLAP_DOCUMENT

²⁷ Reference to UN_DATA_TYPE field in the code list (on MDR) specified in the listID attribute of FLUXCharacteristic/TypeCode.

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Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
SpecifiedFLUX_Location	Assoc.	0	1	A FLUX Location specified for this FLUX characteristic.	If UN_DATA_TYPE ²⁷ for the characteristic (specified in FLUXCharacteristic/TypeCode) is FLUX_LOCATION

7.1.10.13. Fishing_Gear entity

Description: Entity used to provide information of a fishing gear.

Table 29: Data elements and attributes of Fishing_Gear

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	The code specifying the type of gear	<i>listID</i> = GEAR_TYPE The FAO gear codes.
ApplicableGear_Characteristic	Assoc.	0	*	Specific characteristics of the gear or gear deployment	The characteristics to be reported depending on the gear type as specified in Annex 14.1. See data elements and attributes in Table 30.

7.1.10.14. Gear_Characteristic entity

Description: Specific characteristics of the gear or gear deployment.

Table 30: Data elements and attributes of GearCharacteristic

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	The code specifying the gear characteristic	<i>listID</i> = FA_GEAR_CHARACTERISTIC
Value	Measure	0	1	The measure of the value for this GEAR characteristic.	If UN_DATA_TYPE ²⁸ for the characteristic (specified in GearCharacteristic/TypeCode) is of type MEASURE or NUMBER. Attribute <i>unitCode</i> must be set. Use the values specified in Annex 14.1, depending on the gear code. The <i>unitCode</i> is defined in the list FLUX_UNIT.

²⁸ Reference to UN_DATA_TYPE field in the code list (on MDR) specified in the *listID* attribute of GearCharacteristic/TypeCode (i.e. FA_GEAR_CHARACTERISTIC).

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Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Value	Indicator	0	1	The value, expressed as an indicator, for this GEAR characteristic.	If UN_DATA_TYPE ²⁸ for the characteristic (specified in GearCharacteristic/TypeCode) is of type BOOLEAN.
Value	Code	0	1	The code specifying a value of this GEAR characteristic.	If UN_DATA_TYPE ²⁸ for the characteristic (specified in GearCharacteristic/TypeCode) is of type CODE. Attribute listID must be set. Use value of an existing code list on MDR.
Value	Text	0	1	A value, expressed as text, of this GEAR characteristic.	If UN_DATA_TYPE ²⁸ for the characteristic (specified in GearCharacteristic/TypeCode) is of type TEXT.
Value	Quantity	0	1	The value, expressed as a quantity, for this GEAR characteristic.	If UN_DATA_TYPE ²⁸ for the characteristic (specified in GearCharacteristic/TypeCode) is of type QUANTITY.

7.1.10.15. Gear_Problem entity

Description: Entity providing information on a problem with a fishing gear.

Table 31: Data elements and attributes of Gear_problem entity

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	The code specifying a type of gear problem.	ListID=FA_GEAR_PROBLEM

7.1.10.16. DelimitedPeriod entity

Description: A period of time delimited by a start and end date.

Table 32: Data elements and attributes of Delimited_Period entity

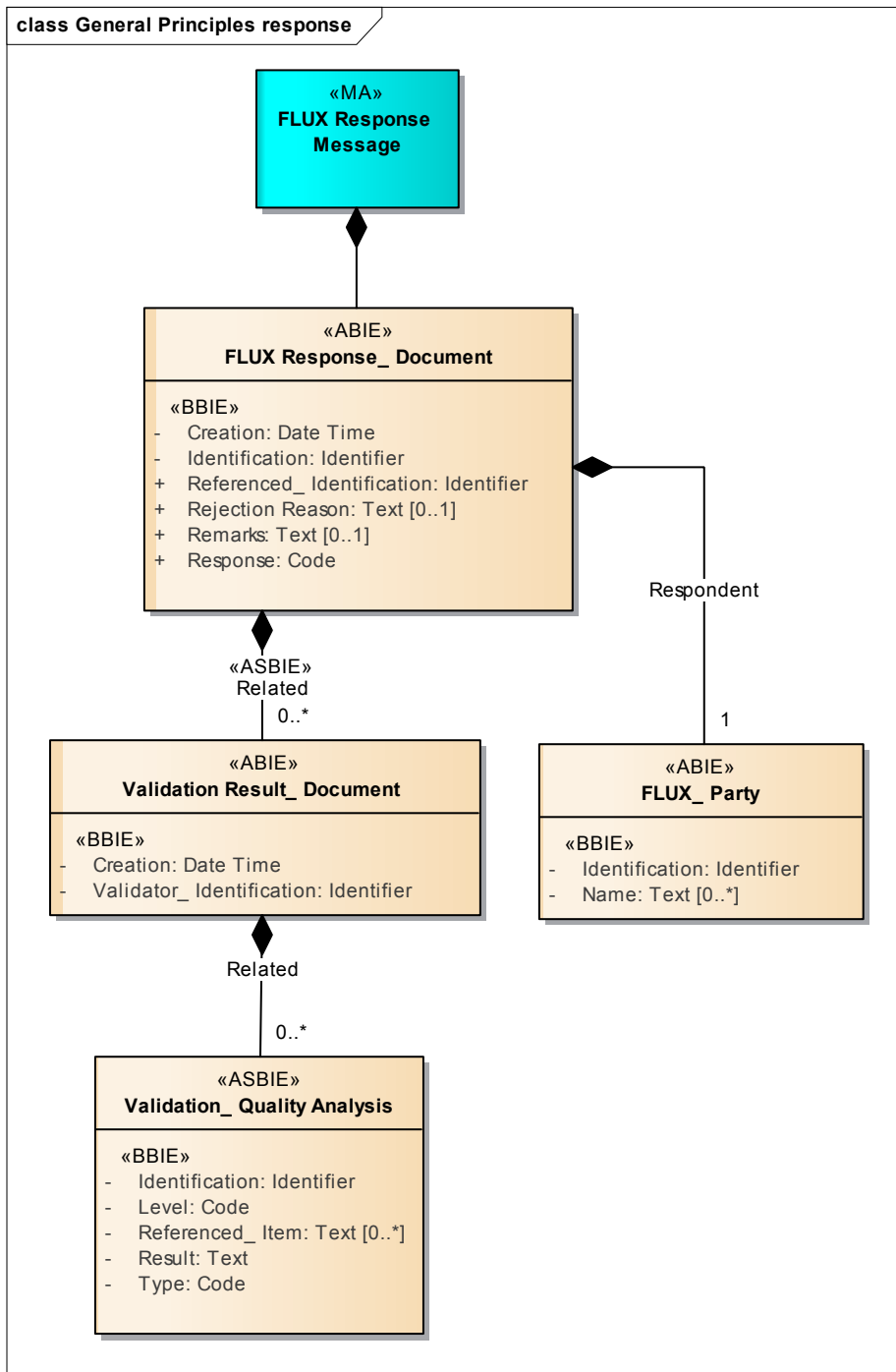
Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Start	DateTime	0	1	UTC start date of the delimited period	Must be according to the definition provided in 7.1(2).
End	DateTime	0	1	UTC end date of the delimited period	Must be according to the definition provided in 7.1(2).

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Duration	Measure	0	1	Total duration of the delimited period	The total duration of the delimited period, including the unitCode. Attribute <i>unitCode</i> must be "MIN". The unitCode is defined in the list FLUX_UNIT. The value must not contain decimals.

7.2. FLUX Response Message

The FLUX Response Message is used to respond to a FLUX FA Report Message and contains validation results.

Figure 9: Class Diagram for FLUX Response Message (General Principles Response)



7.2.1. FLUX Response Document

This entity contains information on which message was validated, when and by whom as well as the set of validation results.

Table 33: Data elements and attributes of FLUXResponseDocument entity

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	The Global Unique Identifier of the FLUX Response Message.	<i>schemeID=UUID²⁹</i> as defined in the RFC 4122.
Referenced Identification	Identifier	1	1	The identifier of a referenced FLUX FA Report, to which this FLUX Response Document refers.	Used for referencing the query message or the report message that has been validated. <i>schemeID=UUID²⁹</i> as defined in the RFC 4122.
Creation	DateTime	1	1	The UTC date and time of the creation of this FLUX Response Message.	Must be according to the definition provided in 7.1(2).
Response	Code	1	1	The code specifying the general status of the validation process, which has been applied on the referenced FLUX FA Report Message.	<i>listID=FLUX_GP_RESPONSE</i> If at least one Business Rule fails with an error (NOK), the whole FLUX FA Report Message is rejected
Remarks	Text	0	1	A general textual remark related to the Response code.	Optional.
Related ValidationResult_ Document	Assoc.	0	*	The validation result document related to this FLUX response.	To be provided only in case at least one BR fails (ResponseCode <> OK). See data elements and attributes in Table 34.
Respondent FLUX_Party	Assoc.	1	1	The party owning this FLUX Report Document.	See data elements and attributes in Table 36.

7.2.2. Validation Result Document

Table 34: Data elements and attributes of ValidationResultDocument entity

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Validator Identification	Identifier	1	1	The identifier the validating party.	<i>schemeID</i> =FLUX_GP_PARTY
Creation	DateTime	1	1	The UTC date/time of the creation of this validation report.	Must be according to the definition provided in 7.1(2).
Related Validation_QualityAnalysis	Assoc.	0	*	The validation result document related to this FLUX response.	Only the failed business rules ³⁰ are part of FLUX Response Document. The information on the failed business rules are at the level of data field. See data elements and attributes in Table 35.

7.2.3. Validation Quality Analysis

Table 35: Data elements and attributes of QualityAnalysis entity

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
ID	Identifier	1	1	Business rule identification.	See chapter 8. e.g.: FA-L00-00-0000
Level	Code	1	1	The code specifying the validation level of the business rule.	<i>listID</i> = FLUX_GP_VALIDATION_LEVEL e.g.: L00
Type	Code	1	1	The code specifying the type of error found.	<i>listID</i> = FLUX_GP_VALIDATION_TYPE e.g. Error, warning, etc.
Result	Text	1	1	Text explaining the business rule violation.	Standardized error/warning message in English. <i>Message</i> description on MDR in <i>listID</i> =FA_BR
ReferencedItem	Text	0	*	An information to locate in the XML the data causing the problem	X-path to the data element generating the business rule failure. Mandatory for rules with specific reference to an entity/data field/attribute

³⁰ All business rules applicable to the message that failed must be included (see section 6.4).

7.2.4. Respondent FLUX_Party

Table 36: Data elements and attributes of RespondentFLUXParty entity

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	The identifier of the party generating the response.	<i>schemeID</i> = FLUX_GP_PARTY

8. BUSINESS RULES

The list of business rules below is used to verify that the data quality of Fishing Activity messages transmitted over the FLUX system is sufficiently high to ensure their relevance. In an exchange of data between two systems without any human intervention, the principle is to give back to the sending system as much as possible feedback about the received message. Therefore it is advised to execute as many business rules as possible at the moment of reception of the message and to reply to the sender by putting in the response all the possible errors (or warnings) detected, not stopping the validation process at the first error (see also sections 6.2.1 and 6.4).

Before transmitting Fishing Activity messages, all business rules defined in this implementation document must be applied.

A business rule is applicable during a certain time period including the start and end dates of the specified period. The period during which the business rule is applicable is available on the Master Data Register page of the NEAFC website (<https://www.neafc.org/mdr>)².

Messages received must be validated according to the applicable business rules at the time of creation of the Fishing Activity Report document (FLUXFARreportDocument/CreationDateTime associated to the FARreportDocument). A business rule must be applied if the data used by the business rule is available in the message.

Mandatory and conditionally mandatory data elements are identified in chapter 7. Where a data element is mandatory to be provided, given the conditions, the XML tags in the report shall be present and not be empty. Where data elements are provided while not mentioned in this implementation document, but nevertheless comply with the UN/FLUX standard, the XML tags in the report may be ignored by the receiving party. It is therefore not mandatory to validate those data elements.

Rules related to data elements are only applicable if the data element is present, except for the rules which explicitly check the presence of a data element. Rules related to data elements of a particular entity, including the rules checking the presence of data elements, are only applicable if those entities are present. Rules checking presence of entities are applicable only if the parent entity is present.

An overloaded data element is defined as a data element communicated repetitively (based on the cardinality of the element defined in the data model) but exceeding the limit imposed by the implementation document. In this version of the document, there are no business rules³¹ defined to detect overloaded data elements and therefore to report such issue to the sender. Such data elements are ignored by the validation process. (e. g. multiple IRCS identifiers for a vessel in the XML: allowed by the standard but limited to one in the implementation document ...)

³¹ Additional business rules can be defined in a future version

Validation of the format of the value of an identifier is based on the format defined for the schemeID. The format check must be applied if the format description and expression are provided for the schemeID in the Master Data Register. If it is not provided, any value provided must be considered valid.

The tables presented in the sections below must be read as follows:

- BR-ID: Business rule ID. Identifier assigned to the BR according to the following methodology: FA-Lxx-BB-CCCC
 - FA: Referring to the Fishing Activities domain
 - Lxx: The level of the business rule, where x is
 - 00: Integrity control
 - 01: Data field validation (one attribute)
 - 02: Row validation (one report)
 - 03: Content validation (coherence between reports or with external data)
 - BB: optional sub-level. This part of the numbering is used to identify the sub-levels, if FLUX domain requires the split of the business rules levels. If the domain does not require sub-level, '00' must be used.

Not used in the Fishing Activities domain.
 - CCCC: This part of BR identification represents the sequence number of the business rule in the level and/or sub-level group so it can be uniquely identified.
- Entity/Attribute: the entity in the Fishing Activities data model and the attribute(s) name(s) within this entity used by the BR. The names of entities and attributes are as defined in the UN/CEFACT XSD files.
- BR: description of the rule
- E/W: error or warning.
- Note: Any relevant information to clarify the BR

8.1. General business rules

BR-ID	Entity/Attribute	BR	E/W ³²	Note
FA-L00-00-0000	FLUXFAReportMessage	Verifies whether or not the message is valid XML and validates against the XSD schema	E	An invalid XML message has been received.

8.2. Rules for FLUXFAReportMessage entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0001	FLUXFAReportMessage/FLUXReportDocument/ID	Check presence. Must be present.	E	
FA-L01-00-0002	FLUXFAReportMessage/FLUXReportDocument/ID	Check attribute schemeID. Must be UUID.	E	
FA-L01-00-0003	FLUXFAReportMessage/FLUXReportDocument/ID	Check Format of the value. Must be according to the specified schemeID.	E	Check is case insensitive.
FA-L03-00-0004	FLUXFAReportMessage/FLUXReportDocument/ID	The identification must be unique and not already exist	E	If it exists already, the contents are considered identical and the message may be ignored by the receiving party.
FA-L00-00-0005	FLUXFAReportMessage/FLUXReportDocument/CreationDateTime	Check presence. Must be present.	E	
FA-L01-00-0006	FLUXFAReportMessage/FLUXReportDocument/CreationDateTime	Check Format. Must be according to the definition provided in 7.1(2).	E	
FA-L03-00-0007	FLUXFAReportMessage/FLUXReportDocument/CreationDateTime	Date must be in the past.	E	A threshold of 10 minutes to compensate for incorrect clock synchronization of the exchanging systems must be taken into account.
FA-L00-00-0008	FLUXFAReportMessage/FLUXReportDocument/PurposeCode	Check presence. Must be present.	E	
FA-L01-00-0009	FLUXFAReportMessage/FLUXReportDocument/PurposeCode	Check attribute listID. Must be FLUX_GP_PURPOSE	E	If listID provided.
FA-L01-00-0010	FLUXFAReportMessage/FLUXReportDocument/PurposeCode	Check code. Must be value 9 (original data)	E	
FA-L00-00-0014	FLUXFAReportMessage/FLUXReportDocument/OwnerFLUXParty/ID	Check presence. Must be present	E	
FA-L01-00-0015	FLUXFAReportMessage/FLUXReportDocument/OwnerFLUXParty/ID	Check attribute schemeID. Must be FLUX_GP_PARTY	E	
FA-L03-00-0016	FLUXFAReportMessage/FLUXReportDocument/OwnerFLUXParty/ID	Check if OwnerFLUXParty/ID is consistent with FLUX TL values.	E	The party sending must be allowed to send the message. Part of FLUX TL FR-value before colon must be equal to OwnerFLUXParty/ID
FA-L00-00-0017	FLUXFAReportMessage/FAReportDocument	Check presence. At least one occurrence must be present.	E	

³² Error/Warning

8.3. Rules for FAReportDocument entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0020	FAReportDocument/TypeCode, FAReportDocument/RelatedFLUX ReportDocument/PurposeCode	Check presence. Must be present in case of a new message or a correction.	E	PurposeCode 9or 5.
FA-L01-00-0021	FAReportDocument/TypeCode	Check attribute listID. Must be FLUX_FA_REPORT_TYPE	E	
FA-L01-00-0022	FAReportDocument/TypeCode	Check code. Must be existing in the list specified in attribute listID.	E	
FA-L00-00-0025	FAReportDocument/AcceptanceDateTime	Check presence. Must be present.	E	
FA-L01-00-0026	FAReportDocument/AcceptanceDateTime	Check Format. Must be according to the definition provided in 7.1(2).	E	Include the check if the date provided exists.
FA-L03-00-0027	FAReportDocument/AcceptanceDateTime	Date must be in the past	E	A threshold of 10 minutes to compensate for incorrect clock synchronization of the exchanging systems must be taken into account.
FA-L00-00-0480	FAReportDocument/FMCMarker	Check attribute listID. Must be FLUX_FA_FMC if data element present	E	
FA-L01-00-0481	FAReportDocument/FMCMarker	Check code. Must be existing in the list specified in attribute listID	E	
FA-L01-00-0028	FAReportDocument/RelatedFLUX ReportDocument	Check presence. Must be present.	E	
FA-L01-00-0580	FAReportDocument/RelatedFLUX ReportDocument/ID	Check attribute schemeID. At least one occurrence of schemeID must be UUID. In addition, another occurrence may be NEAFC_SQ	E	SQ number is optional
FA-L01-00-0030	FAReportDocument/RelatedFLUX ReportDocument/ID	Check Format. Must be according to the specified schemeID.	E	Check is case insensitive.
FA-L00-00-0032	FAReportDocument/RelatedFLUX ReportDocument/PurposeCode	Check presence. Must be present	E	
FA-L01-00-0033	FAReportDocument/RelatedFLUX ReportDocument/PurposeCode	Check attribute listID. Must be FLUX_GP_PURPOSE	E	
FA-L01-00-0034	FAReportDocument/RelatedFLUX ReportDocument/PurposeCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L03-00-0035	FAReportDocument/RelatedFLUX ReportDocument/ReferencedID, FAReportDocument/RelatedFLUX Report Document/PurposeCode	Check presence. Must be present if correction, deletion or cancellation of an earlier report. PurposeCode = 1, 3 or 5.	E	
FA-L01-00-0036	FAReportDocument/RelatedFLUX ReportDocument/ReferencedID	Check attribute schemeID. Must be UUID.	E	
FA-L01-00-0037	FAReportDocument/RelatedFLUX ReportDocument/ReferencedID	Check Format. Must be according to the specified schemeID.	E	Check is case insensitive.
FA-L00-00-0039	FAReportDocument/RelatedFLUX ReportDocument/CreationDateTi me	Check presence. Must be present.	E	
FA-L01-00-0040	FAReportDocument/RelatedFLUX ReportDocument/CreationDateTi me	Check Format. Must be according to the definition provided in 7.1(2).	E	
FA-L03-00-0041	FAReportDocument/RelatedFLUX ReportDocument/CreationDateTi me	Date must be in the past.	W	A threshold of 10 minutes to compensate for incorrect clock synchronization of

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BR-ID	Entity/Attribute	BR	E/W	Note
				the exchanging systems must be taken into account.
FA-L02-00-0042	FAReportDocument/AcceptanceDateTime, FAReportDocument/RelatedFLUXReportDocument/CreationDateTi me	Acceptance date/time must be before Creation date/time	E	A threshold of 10 minutes to compensate for incorrect clock synchronization of the exchanging systems must be taken into account.
FA-L00-00-0043	FAReportDocument/RelatedFLUXReportDocument/OwnerFLUXParty/ID	Check presence. Must be present	E	
FA-L01-00-0044	FAReportDocument/RelatedFLUXReportDocument/OwnerFLUXParty/ID	Check attribute schemeID. Must be FLUX_GP_PARTY	E	
FA-L02-00-0045	FAReportDocument/RelatedFLUXReportDocument/OwnerFLUXParty/ID, FLUXFAReportMessage/FLUXReportDocument/OwnerFLUXParty/ID	Check if FAReportDocument/RelatedFLUXReportDocument/OwnerFLUXParty/ID (owner of the report) is consistent FLUXFAReportMessage/FLUXReportDocument/OwnerFLUXParty/ID (party sending the message).	W	Both values must be identical, except where FLUXFAReportMessage/FLUXReportDocument/OwnerFLUXParty/ID starts with letter "X". E.g. XEU, XFA
FA-L00-00-0046	FAReportDocument/SpecifiedVesselTransportMeans, FAReportDocument/PurposeCode	SpecifiedVesselTransportMeans must be present, unless deletion or cancellation report.	E	If purposeCode 9 or 5, this entity is mandatory
FA-L00-00-0047	FAReportDocument/SpecifiedFishingActivity	Check presence. Must be present, unless deletion or cancellation report.	E	If purposeCode 9 or 5, there must be exactly one occurrence, except for fishing operations (code FISHING_OPERATION or JOINT_FISHING_OPERATION) occurring on the same day.

8.4. Rules for VesselTransportMeans

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0563	VesselTransportMeans/ID	Check presence. At least 2 identifiers with distinct schemeID must be present if used in SpecifiedVesselTransportMeans	E	
FA-L00-00-0570	VesselTransportMeans/ID	Check presence. At least 1 identifier must be present if used in RelatedVesselTransportMeans	E	
FA-L01-00-0051	VesselTransportMeans/ID	Check schemeID. SchemeIDs must be present in the list FLUX_VESSEL_ID_TYPE	E	
FA-L01-00-0052	VesselTransportMeans/ID	Check Format. Must be according to the specified schemeID.	E	
FA-L03-00-0482	VesselTransportMeans/ID	One occurrence of ID must have schemeID=IRCS.	E	
FA-L00-00-0055	VesselTransportMeans/RoleCode	Check presence. Must be present if used in FishingActivity entity (i.e. RelatedVesselTransportMeans).	E	Conditions for RoleCode for the reporting vessel (i.e. FAReportDocument/SpecifiedVesselTransportMeans) are specified elsewhere.
FA-L01-00-0056	VesselTransportMeans/RoleCode	Check attribute listID. Must be FA_VESSEL_ROLE	E	
FA-L01-00-0057	VesselTransportMeans/RoleCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L00-00-0058	VesselTransportMeans/RegistrationVesselCountry/ID	Check presence. Must be present	E	
FA-L01-00-0059	VesselTransportMeans/RegistrationVesselCountry/ID	Check schemeID. Must be TERRITORY	E	
FA-L01-00-0060	VesselTransportMeans/RegistrationVesselCountry/ID	Check code. Must be existing in the list specified in attribute schemeID	E	
FA-L03-00-0062	VesselTransportMeans/ID, VesselTransportMeans/RegistrationVesselCountry/ID	The vessel identification and registration location (flag state) must be consistent	W	The vessel (based on the reported IDs) must be registered in the reported flag state on the report creation date.
FA-L00-00-0067	VesselTransportMeans/SpecifiedContactParty	Check presence. Must be present if used in entity FAReportDocument/SpecifiedVesselTransportMeans	E	
FA-L00-00-0069	VesselTransportMeans/SpecifiedContactParty/RoleCode	Check listID. Must be FLUX_CONTACT_ROLE	E	
FA-L01-00-0070	VesselTransportMeans/SpecifiedContactParty/RoleCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L02-00-0590	VesselTransportMeans/SpecifiedContactParty/RoleCode	Must be MASTER if used in entity FAReportDocument/SpecifiedVesselTransportMeans	W	
FA-L00-00-0072	VesselTransportMeans/SpecifiedContactParty/SpecifiedContactPerson/GivenName, VesselTransportMeans/SpecifiedContactParty/SpecifiedContactPerson/Alias	Check presence. Must be present if AliasText is not present.	E	
FA-L00-00-0074	VesselTransportMeans/SpecifiedContactParty/SpecifiedContactPerson/FamilyName, VesselTransportMeans/SpecifiedContactParty/SpecifiedContactPerson/Alias	Check presence. Must be present if Alias is not present	E	

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BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0076	VesselTransportMeans/SpecifiedContactParty/SpecifiedContactPerson/Alias, VesselTransportMeans/SpecifiedContactParty/SpecifiedContactPerson/GivenName, VesselTransportMeans/SpecifiedContactParty/SpecifiedContactPerson/FamilyName	Check presence. Must be present if GivenName or FamilyName is not present.	E	In some cases the name of the master is not available as first and last name, but as one text field containing a concatenation of both.
FA-L01-00-0077	VesselTransportMeans/SpecifiedContactParty/SpecifiedContactPerson/Alias	Non-empty	E	In some cases the name of the master is not available as first and last name, but as one text field containing a concatenation of both.
FA-L02-00-0469	VesselTransportMeans/SpecifiedVesselPositionEvent, FishingActivity/TypeCode	Check presence. SpecifiedVesselPositionEvent must be present if FishingActivity/TypeCode=AREA_ENTRY	E	

8.5. Rules for VesselPositionEvent

BR-ID	Entity	BR	E/W	Note
FA-L00-00-0458	VesselPositionEvent/TypeCode	Check presence. Must be present.	E	
FA-L01-00-0459	VesselPositionEvent/TypeCode	Check attribute listID. Must be FLUX_VESSEL_POSITION_TYPE	E	
FA-L01-00-0460	VesselPositionEvent/TypeCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L00-00-0461	VesselPositionEvent/ObtainedOccurrenceDateTime	Check presence. Must be present.	E	
FA-L01-00-0462	VesselPositionEvent/ObtainedOccurrenceDateTime	Check Format. Must be according to the definition provided in 7.1(2)	E	Include the check if the date provided exists.
FA-L00-00-0463	VesselPositionEvent/SpecifiedVesselGeographicalCoordinate/LatitudeMeasure	Check presence. Must be present	E	
FA-L01-00-0464	VesselPositionEvent/SpecifiedVesselGeographicalCoordinate/LatitudeMeasure	Must be a number with at least 3 decimal positions between -90.000 and 90.000 included.	E	
FA-L01-00-0465	VesselPositionEvent/SpecifiedVesselGeographicalCoordinate/LongitudeMeasure	Must be a number with at least 3 decimal positions between -180.000 and 180.000 included.	E	
FA-L00-00-0455	VesselPositionEvent/SpecifiedVesselGeographicalCoordinate/LongitudeMeasure	Check presence. Must be present	E	

8.6. Rules for FishingActivity entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0090	FishingActivity/TypeCode	Check presence. Must be present.	E	
FA-L01-00-0091	FishingActivity/TypeCode	Check attribute listID. Must be FLUX_FA_TYPE	E	
FA-L01-00-0092	FishingActivity/TypeCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L01-00-0094	FishingActivity/OccurrenceDateTi me	Check Format. Must be according to the definition provided in 7.1(2)	E	If provided. In some cases, depending on fishing activity type, a delimited period must be used instead.
FA-L01-00-0097	FishingActivity/ReasonCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L01-00-0101	FishingActivity/SpeciesTargetCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L01-00-0102	FishingActivity/VesselRelatedActiv ityCode	Check attribute listID. Must be VESSEL_ACTIVITY	E	
FA-L01-00-0103	FishingActivity/VesselRelatedActiv ityCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L01-00-0104	FishingActivity/Operations Quantity	Must be a positive integer ³³ number or zero (>=0)	E	
FA-L01-00-0105	FishingActivity/SpecifiedDelimited Period/DurationMeasure	Must be a positive number or zero (>=0)	E	
FA-L01-00-0106	FishingActivity/SpecifiedDelimited Period/DurationMeasure	Check attribute unitCode. Must be MIN (minutes)	W	Duration expressed in minutes
FA-L01-00-0484	FishingActivity/ SpecifiedDelimitedPeriod/Duratio nMeasure	Check presence of attribute unitCode. Must be present if data element provided.	E	

8.7. Rules for FACatch entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0150	FACatch/TypeCode	Check presence. Must be present.	E	
FA-L01-00-0151	FACatch/TypeCode	Check attribute listID. Must be FA_CATCH_TYPE	E	
FA-L01-00-0152	FACatch/TypeCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L00-00-0153	FACatch/SpeciesCode	Check presence. Must be present.	E	
FA-L01-00-0154	FACatch/SpeciesCode	Check attribute listID. Must be FAO_SPECIES	E	
FA-L01-00-0155	FACatch/SpeciesCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L00-00-0565	FACatch/WeightMeasure	Check presence. Must be present.	E	
FA-L01-00-0160	FACatch/WeightMeasure	Check attribute UnitCode. Must be KGM (kilograms)	E	

³³ Integer numbers are numbers without fractions. They should be provided in the reports without decimals.

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BR-ID	Entity/Attribute	BR	E/W	Note
FA-L01-00-0161	FACatch/WeightMeasure	Positive number with maximum 2 decimals or zero (>=0)	E	
FA-L01-00-0166	FACatch/SpecifiedSizeDistribution/ClassCode	Check attribute listID. Must be FISH_SIZE_CLASS	E	i.e. BMS, LSC
FA-L01-00-0167	FACatch/SpecifiedSizeDistribution/ClassCode	Check code. Must be existing in the list specified in attribute listID	E	

8.8. Rules for AAPStock entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0491	AAPStock/ID	Check presence. Must be present.	E	
FA-L01-00-0492	AAPStock/ID	Check attribute schemeID. Must be FA_NEAFC_STOCK	E	
FA-L01-00-0493	AAPStock/ID	Check code. Must be existing in the list specified in attribute schemeID	E	

8.9. Rules for FishingTrip entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0190	FishingTrip/ID	Check presence. Must be present.	E	At least one occurrence.
FA-L00-00-0487	FishingTrip/ID	Check attribute schemeID. Must be present.	E	
FA-L02-00-0591	FishingTrip/ID	Check attribute schemeID. At most one occurrence of ID for a given schemeID.	E	
FA-L01-00-0192	FishingTrip/ID	Check format. Must be according to schemeID rules.	E	

8.10. Rules for FLUXLocation entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0195	FLUXLocation/TypeCode	Check presence. Must be present.	E	
FA-L01-00-0196	FLUXLocation/TypeCode	Check attribute listID. Must be FLUX_LOCATION_TYPE	E	
FA-L01-00-0197	FLUXLocation/TypeCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L02-00-0201	FLUXLocation/ID, FLUXLocation/TypeCode	ID must be present, unless TypeCode is POSITION or ADDRESS	E	ID is optional for address and geographical location

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BR-ID	Entity/Attribute	BR	E/W	Note
FA-L01-00-0473	FLUXLocation/ID, FLUXLocation/TypeCode	Check attribute schemeID of ID. In case TypeCode=AREA: schemeID must be FAO_AREA, STAT_RECTANGLE, TERRITORY, MANAGEMENT_AREA. In case TypeCode= "LOCATION" the schemeID must be LOCATION	E	
FA-L01-00-0203	FLUXLocation/ID	Check value. Must be existing in the list specified in attribute schemeID	E	
FA-L01-00-0204	FLUXLocation/RegionalFisheriesManagementOrganisationCode	Check attribute listID. Must be RFMO.	E	
FA-L01-00-0205	FLUXLocation/RegionalFisheriesManagementOrganisationCode	Check value. Must be existing in the list specified in attribute listID	E	
FA-L02-00-0206	FLUXLocation/SpecifiedPhysicalFLUXGeographicalCoordinate, FLUXLocation/TypeCode	Check presence. Must be present if FLUXLocation/TypeCode =POSITION.	E	Must be present if location type is POSITION.
FA-L01-00-0216	ApplicableFLUXCharacteristic/TypeCode	Check attribute listID. Must be FLUX_LOCATION_CHARACTERISTIC if used in entity FLUXLocation	E	

8.11. Rules for FLUXGeographicalCoordinate entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0207	FLUXLocation/SpecifiedPhysicalFLUXGeographicalCoordinate/LatitudeMeasure	Check presence. Must be present.	E	
FA-L01-00-0213	FLUXLocation/SpecifiedPhysicalFLUXGeographicalCoordinate/LatitudeMeasure	Must be a number with at least 3 decimal positions between -90.000 and 90.000 included.	E	Boundaries follow the EPSG ³⁴ definition for WGS84.
FA-L00-00-0210	FLUXLocation/SpecifiedPhysicalFLUXGeographicalCoordinate/LongitudeMeasure	Check presence. Must be present.	E	
FA-L01-00-0214	FLUXLocation/SpecifiedPhysicalFLUXGeographicalCoordinate/LongitudeMeasure	Must be a number with at least 3 decimal positions between -180.000 and 180.000 included.	E	Boundaries follow the EPSG ³⁴ definition for WGS84.

8.12. Rules for FishingGear entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0540	FishingGear/TypeCode	Check presence. Must be present.	E	
FA-L01-00-0120	FishingGear/TypeCode	Check attribute listID. Must be GEAR_TYPE	E	
FA-L01-00-0121	FishingGear/TypeCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L02-00-0592	FishingGear/ApplicableGearCharacteristic, FishingGear/TypeCode	ApplicableGearCharacteristic must be present if FishingGear/TypeCode requires specific characteristics to be	W	As many occurrences required as defined in the annex 14.1).

³⁴ The EPSG Geodetic Parameter Dataset is a collection of definitions of coordinate reference systems and coordinate transformations. It is a standardized way to specify the coordinate system & parameters. WGS84 corresponds to EPSG:4326.

BR-ID	Entity/Attribute	BR	E/W	Note
		reported. Only applicable if used in entity FishingActivity		

8.13. Rules for GearCharacteristic entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0124	GearCharacteristic/TypeCode	Check presence. Must be present.	E	
FA-L01-00-0125	GearCharacteristic/TypeCode	Check attribute listID. Must be FA_GEAR_CHARACTERISTIC	E	
FA-L01-00-0126	GearCharacteristic/TypeCode	Check the value of the code. Must be existing in the list specified in attribute listID	E	
FA-L00-00-0128	GearCharacteristic/ValueMeasure	If UN_DATA_TYPE ³⁵ for the characteristic (specified in GearCharacteristic/TypeCode) is MEASURE or NUMBER, ValueMeasure must be present and have a value	E	If gear characteristic requires value of type Measure
FA-L01-00-0510	GearCharacteristic/ValueMeasure	Check attribute <i>unitCode</i> . The unitCode is defined in the list FLUX_UNIT. Use the value as specified in Annex 14.1.	E	
FA-L00-00-0129	GearCharacteristic/ValueIndicator	If UN_DATA_TYPE ³⁵ for the characteristic (specified in GearCharacteristic/TypeCode) is BOOLEAN, ValueIndicator must be present and have a value.	E	If gear characteristic requires value of type Indicator
FA-L00-00-0130	GearCharacteristic/ValueCode	If UN_DATA_TYPE ³⁵ for the characteristic (specified in GearCharacteristic/TypeCode) is CODE, ValueCode must be present and have a value	E	If gear characteristic requires value of type Code
FA-L03-00-0145	GearCharacteristic/ValueCode	Check presence of attribute listID. Must be present and have a value of an existing code list in MDR.	E	
FA-L01-00-0146	GearCharacteristic/ValueCode	Check value. Must be existing on the MDR code list specified in listID.	E	
FA-L00-00-0131	GearCharacteristic/Value	If UN_DATA_TYPE ³⁵ for the characteristic (specified in GearCharacteristic/TypeCode) is TEXT, Value must be present and non-empty.	E	If gear characteristic requires value of type Text
FA-L00-00-0132	GearCharacteristic/ValueQuantity	If UN_DATA_TYPE ³⁵ for the characteristic (specified in GearCharacteristic/TypeCode) is QUANTITY, ValueQuantity must be present and have a value	E	If gear characteristic requires value of type Quantity

³⁵ Reference to UN_DATA_TYPE field in the FA_GEAR_CHARACTERISTIC code list on MDR.

8.14. Rules for GearProblem entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0135	GearProblem/TypeCode	Check presence. Must be present.	E	
FA-L01-00-0136	GearProblem/TypeCode	Check attribute listID. Must be FA_GEAR_PROBLEM.	E	
FA-L01-00-0137	GearProblem/TypeCode	Check code. Must be existing in the list specified in attribute listID.	E	

8.15. Rules for FLUXCharacteristic entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0220	FLUXCharacteristic/TypeCode	Check presence. Must be present.	E	
FA-L01-00-0221	FLUXCharacteristic/TypeCode	Check the value of the code. Must be existing in the list specified in attribute listID	E	
FA-L00-00-0223	FLUXCharacteristic/ValueMeasure	If UN_DATA_TYPE ³⁶ for the characteristic (specified in FLUXCharacteristic/TypeCode) is MEASURE or NUMBER, ValueMeasure must be present and have a value.	E	If FLUX_characteristic requires value of type Measure
FA-L00-00-0229	FLUXCharacteristic/ValueMeasure	Check attribute <i>unitCode</i> . The unitCode is defined in the list FLUX_UNIT.	E	If FLUX_characteristic requires value of type Measure
FA-L00-00-0224	FLUXCharacteristic/ValueDateTime	If UN_DATA_TYPE ³⁶ for the characteristic (specified in FLUXCharacteristic/TypeCode) is DATETIME, ValueDateTime must be present.	E	If FLUX_characteristic requires value of type DateTime
FA-L00-00-0225	FLUXCharacteristic/ValueIndicator	If UN_DATA_TYPE ³⁶ for the characteristic (specified in FLUXCharacteristic/TypeCode) is BOOLEAN, ValueIndicator must be present and have a value.	E	If FLUX_characteristic requires value of type Indicator
FA-L00-00-0226	FLUXCharacteristic/ValueCode	If UN_DATA_TYPE ³⁶ for the characteristic (specified in FLUXCharacteristic/TypeCode) is CODE, ValueCode must be present and have a value.	E	If FLUX_characteristic requires value of type Code
FA-L03-00-0147	FLUXCharacteristic/ValueCode	Check presence of attribute listID. Must be present and have a value of an existing code list in MDR.	E	
FA-L01-00-0148	FLUXCharacteristic/ValueCode	Check value. Must be existing on the MDR code list specified in listID.	E	
FA-L00-00-0227	FLUXCharacteristic/Value	If UN_DATA_TYPE ³⁶ for the characteristic (specified in FLUXCharacteristic/TypeCode) is TEXT, Value must be present and non-empty.	E	If FLUX_characteristic requires value of type Text

³⁶ Reference to UN_DATA_TYPE field in the code list (on MDR) specified in the listID attribute of FLUXCharacteristic/TypeCode.

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BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0228	FLUXCharacteristic/ValueQuantity	If UN_DATA_TYPE ³⁶ for the characteristic (specified in FLUXCharacteristic/TypeCode) is QUANTITY, ValueQuantity must be present and have a value.	E	If FLUX_characteristic requires value of type Quantity

8.16. Additional rules for a prior notification of entry

BR-ID	Entity/Attribute	BR	E/W	Note
<i>CONDITION</i>	<i>FishingActivity/TypeCode, FAReportDocument/TypeCode</i>	<i>If AREA_ENTRY NOTIFICATION</i>		<i>All rules in this table apply to reports that match this condition.</i>
FA-L02-00-0471	FishingActivity/RelatedFLUXLocation	Check presence. At least 1 occurrence must be present if the activity is an area entry notification.	E	
FA-L02-00-0456	FishingActivity/RelatedFLUXLocation/TypeCode	At least one occurrence of RelatedFLUXLocation/TypeCode must have the value AREA if the activity is an area entry notification.	E	
FA-L02-00-0466	FishingActivity/RelatedFLUXLocation/TypeCode	The schemeID of at least one occurrence with RelatedFLUXLocation/TypeCode=AREA must have RelatedFLUXLocation/ID=MANAGEMENT_AREA if the activity is an area entry notification.	W	
FA-L02-00-0468	FishingActivity/SpecifiedFACatch/TypeCode	Must have at least one occurrence with TypeCode ONBOARD if the activity is an area entry notification	E	
FA-L02-00-0511	FishingActivity/ReasonCode	Check presence. Must be present if the activity is an area entry notification.	E	
FA-L02-00-0512	FishingActivity/ReasonCode	Check attribute listID. Must be FA_REASON_ENTRY if the activity is an area entry notification	E	
FA-L02-00-0514	FishingActivity/SpeciesTargetCode, FishingActivity/ReasonCode	Check presence. Must be present if ReasonCode=FIS if the activity is an area entry notification	E	
FA-L02-00-0515	FishingActivity/SpeciesTargetCode	Check attribute listID. Must be FAO_SPECIES if the activity is an area entry notification	E	
FA-L02-00-0517	FishingActivity/RelatedFishingActivity, FishingActivity/ReasonCode	Check presence of RelatedFishingActivity. Must be present if the activity is an area entry notification and ReasonCode is FIS or TRX.	E	
FA-L02-00-0520	FishingActivity/RelatedFishingActivity/TypeCode	Check value of the code. Must be START_ACTIVITY if the activity is an area entry notification	E	
FA-L02-00-0521	FishingActivity/RelatedFishingActivity/OccurrenceDateTime, FishingActivity/TypeCode	Check presence. Must be present if the parent activity is an area entry notification	E	
FA-L02-00-0523	FishingActivity/RelatedFishingActivity/RelatedFLUXLocation, FishingActivity/TypeCode	Check presence. Must be present if the parent activity is an area entry notification.	E	
FA-L02-00-0524	FishingActivity/RelatedFishingActivity/RelatedFLUXLocation/TypeCode, FishingActivity/TypeCode	Check value. At least one occurrence of RelatedFLUXLocation/TypeCode must be POSITION if the parent activity is an area entry notification.	E	

8.17. Additional rules for a fishing operation declaration

BR-ID	Entity/Attribute	BR	E/W	Note
CONDITION	FishingActivity/TypeCode, FAReportDocument/TypeCode	If FISHING_OPERATION DECLARATION		All rules in this table apply to reports that match this condition.
FA-L02-00-0256	FishingActivity/VesselRelatedActivityCode	Check presence. Must be present if the activity is fishing operation declaration.	E	
FA-L02-00-0535	FishingActivity/OperationsQuantity, FishingActivity/RelatedFishingActivity	Check presence. Must be present if the activity is a fishing operation declaration and no RelatedFishingActivity entities are present	E	Not applicable for haul by haul (i.e. RelatedFishingActivity GEAR_SHOT, GEAR_RETRIEVAL)
FA-L02-00-0564	FishingActivity/SpecifiedFACatch, FishingActivity/VesselRelatedActivityCode	Check presence. Must be present if the activity is fishing operation declaration and VesselRelatedActivityCode = FIS	E	
FA-L02-00-0536	FishingActivity/SpecifiedFACatch/TypeCode	Value must be ONBOARD if the activity is fishing operation declaration	E	
FA-L02-00-0537	FishingActivity/SpecifiedDelimitedPeriod/DurationMeasure, FishingActivity/VesselRelatedActivityCode	Check presence. Must be present if the activity is fishing operation declaration and VesselRelatedActivityCode = FIS	E	
FA-L02-00-0531	FishingActivity/RelatedFLUXLocation, FishingActivity/RelatedFLUXLocation/ID	At least one occurrence must be present with schemeID=MANAGEMENT_AREA if activity is fishing operation declaration	W	
FA-L02-00-0532	FishingActivity/RelatedFLUXLocation, FishingActivity/RelatedFLUXLocation/ID	At least one occurrence must be present with schemeID=FAO_AREA or STAT_RECTANGLE if activity is fishing operation declaration and no RelatedFishingActivity entities are present	E	
FA-L03-00-0545	FishingActivity/RelatedFLUXLocation/ID	If attribute schemeID=FAO_AREA, then must be FAO division (3 levels: area, sub-area, division) if the activity is fishing operation declaration	W	
FA-L03-00-0546	FishingActivity, FishingActivity/RelatedFishingActivity	If the activity is fishing operation declaration, there must be either no RelatedFishingActivity or there must be 2	W	
FA-L02-00-0260	FishingActivity/RelatedFishingActivity/TypeCode, FishingActivity/TypeCode	If the activity is fishing operation declaration, FishingActivity/RelatedFishingActivity/TypeCode must be GEAR_SHOT or GEAR_RETRIEVAL (if RelatedFishingActivity entity is present).	E	
FA-L02-00-0547	FishingActivity/RelatedFishingActivity/RelatedFLUXLocation	Check presence. At least one occurrence must be present if the activity is fishing operation declaration.	E	
FA-L02-00-0548	FishingActivity/RelatedFishingActivity/RelatedFLUXLocation/TypeCode, FishingActivity/RelatedFishingActivity/TypeCode	Check value of RelatedFishingActivity/RelatedFLUXLocation/TypeCode. If RelatedFishingActivity/TypeCode=GEAR_SHOT and the activity is fishing operation declaration, there must be at least one occurrence with TypeCode=POSITION	E	Start position
FA-L02-00-0549	FishingActivity/RelatedFishingActivity/RelatedFLUXLocation/TypeCode, FishingActivity/RelatedFishingActivity/TypeCode	Check value of RelatedFishingActivity/RelatedFLUXLocation/TypeCode If RelatedFishingActivity/TypeCode= GEAR_RETRIEVAL SHOT and the activity is fishing operation declaration, there must be at least one occurrence with TypeCode=POSITION	E	End position.

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BR-ID	Entity/Attribute	BR	E/W	Note
FA-L02-00-0550	FishingActivity/RelatedFishingActivity/SpecifiedFLUXCharacteristic/TypeCode	Check value. If provided, there must be one occurrence with FISHING_DEPTH and one with BOTTOM_DEPTH	E	
FA-L02-00-0610	FishingActivity/RelatedFishingActivity/TypeCode, FishingActivity/TypeCode	If the activity is a fishing operation declaration and the RelatedFishingActivity/TypeCode is either GEAR_SHOT or GEAR_RETRIEVAL, then the RelatedFishingActivity shall not contain SpecifiedFACatch entities.	E	
FA-L00-00-0571	FAReportDocument/SpecifiedVesselTransportMeans/RoleCode, FishingActivity/RelatedVesselTransportMeans	Check presence. Must be present if the activity is fishing operation declaration and a relatedVesselTransportMeans is present.	E	The role of the reporting vessel must be provided in case more than one vessel is involved in the activity
FA-L01-00-0582	FishingActivity/RelatedVesselTransportMeans/RoleCode	Must be either PAIR_FISHING_PARTNER or DONOR if the activity is a fishing operation declaration...	E	The role of the other vessel involved in the activity must be specified.

8.18. Additional rules for a discard declaration

BR-ID	Entity	BR	E/W	Note
<i>CONDITION</i>	<i>FishingActivity/TypeCode, FishingActivity/FAReportDocument/TypeCode</i>	<i>If DISCARD DECLARATION</i>		<i>All rules in this table apply to reports that match this condition.</i>
FA-L02-00-0281	FishingActivity/RelatedFLUXLocation	Check presence. At least 1 occurrence must be present if the activity is discard declaration.	E	
FA-L02-00-0567	FishingActivity/SpecifiedFACatch, FishingActivity/SpecifiedFACatch/TypeCode	At least one occurrence must be present and have TypeCode=DISCARDED if the activity is discard operation declaration	W	
FA-L02-00-0533	FishingActivity/SpecifiedFACatch/ SpecifiedFLUXLocation, FishingActivity/SpecifiedFACatch/ SpecifiedFLUXLocation/ID	At least one occurrence must be present having a SpecifiedFLUXLocation/ID with schemeID=MANAGEMENT_AREA if activity is discard operation declaration (and catches provided)	W	Location where the discarded catches were taken.
FA-L02-00-0534	FishingActivity/SpecifiedFACatch/ SpecifiedFLUXLocation, FishingActivity/SpecifiedFACatch/ SpecifiedFLUXLocation/ID	At least one occurrence must be present with schemeID=FAO_AREA or STAT_RECTANGLE if activity is discard operation declaration (and catches provided)	E	Location where the discarded catches were taken.
FA-L02-00-0560	FishingActivity/ReasonCode	Check presence. Must be present if the activity is discard operation declaration.	E	
FA-L02-00-0561	FishingActivity/ReasonCode	Check attribute listID. Must be FA_REASON_DISCARD if the activity is discard operation declaration	E	
FA-L02-00-0562	FishingActivity/OccurrenceDateTime	Check presence. Must be present if the activity is discard operation declaration.	E	
FA-L02-00-0568	FishingActivity/SpecifiedFLUXCharacteristic/TypeCode	Value must be REMARK if the activity is discard operation declaration	E	

8.19. Additional rules for a transshipment declaration (by receiver)

BR-ID	Entity/Attribute	BR	E/W	Note
<i>CONDITION</i>	<i>FishingActivity/TypeCode, FishingActivity/FAReportDocument/TypeCode</i>	if TRANSHIPMENT DECLARATION		<i>All rules in this table apply to reports that match this condition.</i>
FA-L02-00-0321	FishingActivity/RelatedFLUXLocation	Check presence. At least 1 occurrence must be present if the activity is a transshipment declaration.	E	
FA-L02-00-0322	FishingActivity/RelatedFLUXLocation/TypeCode	If the activity is a transshipment declaration, the TypeCode value of at least one RelatedFLUXLocation must be LOCATION or POSITION.	E	
FA-L02-00-0323	FishingActivity/RelatedVesselTransportMeans	Check presence. Must be present if the activity is a transshipment declaration.	E	
FA-L00-00-0559	FAReportDocument/SpecifiedVesselTransportMeans/RoleCode	Check presence. Must be present if the activity is a transshipment declaration.	E	
FA-L02-00-0569	FishingActivity/RelatedVesselTransportMeans/RoleCode	Check value. Must be DONOR if the activity is a transshipment declaration.	E	
FA-L02-00-0552	FishingActivity/SpecifiedFACatch/TypeCode	Check value. Must be LOADED or ONBOARD if the activity is a transshipment declaration.	E	
FA-L02-00-0583	FishingActivity/SpecifiedFACatch, FishingActivity/SpecifiedFACatch/TypeCode	Check presence. At least 2 occurrences of SpecifiedFACatch with different values for SpecifiedFACatch/TypeCode must be present if the activity is a transshipment declaration.	E	Catches loaded and catches on board after transshipment.
FA-L02-00-0538	FishingActivity/SpecifiedDelimitedPeriod, FishingActivity/SpecifiedDelimitedPeriod/EndDateTime	Check presence. Must be present and have at least EndDateTime present if the activity is a transshipment declaration.	E	

8.20. Additional rules for a notification of transshipment (by donor)

BR-ID	Entity/Attribute	BR	E/W	Note
<i>CONDITION</i>	<i>FishingActivity/TypeCode, FishingActivity/FAReportDocument/TypeCode</i>	if TRANSHIPMENT NOTIFICATION		<i>All rules in this table apply to reports that match this condition.</i>
FA-L02-00-0407	FishingActivity/RelatedFLUXLocation	Check presence. At least 1 occurrence must be present if the activity is a transshipment notification.	E	
FA-L02-00-0408	FishingActivity/RelatedFLUXLocation/TypeCode	Check value. There must be at least one occurrence with value POSITION if the activity is a transshipment notification.	E	
FA-L02-00-0409	FishingActivity/RelatedVesselTransportMeans	Check presence. Must be present if the activity is a transshipment notification.	E	
FA-L02-00-0412	FishingActivity/RelatedVesselTransportMeans/RoleCode	Check value. Must be RECEIVER if the activity is a transshipment notification	E	
FA-L00-00-0452	FishingActivity/OccurrenceDateTime	Check presence. Must be present if the activity is a transshipment notification.	E	
FA-L02-00-0557	FishingActivity/SpecifiedFACatch, FishingActivity/SpecifiedFACatch/TypeCode	Check presence. At least 2 occurrences of SpecifiedFACatch with different values for SpecifiedFACatch/TypeCode must be present if the activity is a transshipment notification.	E	Catches unloaded and catches on board prior to transshipment.

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BR-ID	Entity/Attribute	BR	E/W	Note
FA-L02-00-0551	FishingActivity/SpecifiedFACatch/TypeCode	Check value. Must be UNLOADED or ONBOARD if the activity is a transshipment notification.	E	

8.21. Additional rules for a prior notification of exit

BR-ID	Entity/Attribute	BR	E/W	Note
<i>CONDITION</i>	<i>FishingActivity/TypeCode, FishingActivity/FAReportDocument/TypeCode</i>	If AREA_EXIT NOTIFICATION		<i>All rules in this table apply to reports that match this condition.</i>
FA-L02-00-0472	FishingActivity/RelatedFLUXLocation	Check presence. At least 1 occurrence must be present if the activity is an area exit notification.	E	
FA-L02-00-0450	FishingActivity/RelatedFLUXLocation/TypeCode	At least one occurrence of RelatedFLUXLocation/TypeCode must have the value AREA if the activity is an area exit notification.	E	
FA-L02-00-0470	FishingActivity/RelatedFLUXLocation/ID, FishingActivity/RelatedFLUXLocation/TypeCode	The schemeID of at least one occurrence with RelatedFLUXLocation/TypeCode=AREA must have RelatedFLUXLocation/ID=MANAGEMENT_AREA if the activity is an area exit notification.	W	
FA-L02-00-0457	FishingActivity/RelatedFLUXLocation/TypeCode	If the activity is an area exit notification, TypeCode must be either POSITION or AREA.	E	
FA-L02-00-0558	FishingActivity/SpecifiedFACatch/TypeCode	Must have at least one occurrence with TypeCode ONBOARD if the activity is an area exit notification	E	

8.22. Additional rules for a port of landing notification

BR-ID	Entity/Attribute	BR	E/W	Note
<i>CONDITION</i>	<i>FishingActivity/TypeCode, FishingActivity/FAReportDocument/TypeCode</i>	If ARRIVAL NOTIFICATION		<i>All rules in this table apply to reports that match this condition.</i>
FA-L00-00-0291	FishingActivity/OccurrenceDateTIme	Check presence. Must be present if the activity is an arrival notification.	E	
FA-L02-00-0292	FishingActivity/ReasonCode	Check presence. Must be present if the activity is an arrival notification.	E	
FA-L02-00-0293	FishingActivity/ReasonCode	Check attribute listID. Must be FA_REASON_ARRIVAL if the activity is an arrival notification.	E	
FA-L02-00-0294	FishingActivity/RelatedFLUXLocation	Check presence. At least one occurrence must be present if the activity is an arrival notification.	E	
FA-L02-00-0295	FishingActivity/RelatedFLUXLocation/TypeCode	TypeCode must be LOCATION for at least one occurrence if the activity is an arrival notification.	W	
FA-L02-00-0296	FishingActivity/SpecifiedFACatch, FishingActivity/ReasonCode	Check presence. Must be present if the activity is an arrival notification and ReasonCode is LAN (landing)	E	
FA-L02-00-0297	FishingActivity/SpecifiedFACatch/ TypeCode	Must have at least one occurrence with TypeCode ONBOARD if the activity is an arrival notification.	E	
FA-L02-00-0298	FishingActivity/SpecifiedFACatch/ TypeCode, FishingActivity/ReasonCode	Must have at least one occurrence with TypeCode UNLOADED if the activity is an arrival notification (and if SpecifiedFACatch provided)	E	
FA-L02-00-0556	FishingActivity/RelatedFLUX Location/ApplicableFLUXCharacteristic/TypeCode	Check value. Must be LANDING_SITE if the activity is an arrival notification.	E	

8.23. Rules for FLUXResponse entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0380	FLUXResponseDocument/ID	Check attribute schemeID. Must be UUID.	E	
FA-L01-00-0381	FLUXResponseDocument/ID	Check Format. Must be according to the specified schemeID.	E	Check is case insensitive.
FA-L03-00-0382	FLUXResponseDocument/ID	The identification must be unique and not already exist.	E	
FA-L00-00-0383	FLUXResponseDocument/ReferencedID	Check attribute schemeID. Must be a valid value from code list FLUX_GP_MSG_ID.	E	<i>schemeID=FLUXTL_ON</i> (reference from the envelope) may be used only in case of a parsing problem with the message or a non-availability of or incorrect UUID.
FA-L01-00-0384	FLUXResponseDocument/ReferencedID	Check Format. Must be according to the specified schemeID.	E	Check is case insensitive.
FA-L03-00-0385	FLUXResponseDocument/ReferencedID	The identification must exist for a FLUXFAReportMessage or for a FLUXFAQuery message	W	
FA-L00-00-0386	FLUXResponseDocument/ResponseCode	Check presence. Must be present.	E	
FA-L02-00-0387	FLUXResponseDocument/ResponseCode	Check attribute listID. Must be FLUX_GP_RESPONSE	E	
FA-L02-00-0388	FLUXResponseDocument/ResponseCode	Check value. Code must be value of the specified code list in listID.	E	
FA-L00-00-0389	FLUXResponseDocument/CreationDateTime	Check presence. Must be present.	E	
FA-L01-00-0390	FLUXResponseDocument/CreationDateTime	Check Format. Must be according to the definition provided in 7.1(2).	E	
FA-L01-00-0391	FLUXResponseDocument/CreationDateTime	Date must be in the past.	W	A threshold of 10 minutes to compensate for incorrect clock synchronization of the exchanging systems must be taken into account.
FA-L00-00-0553	FLUXResponseDocument/RespondentFLUXParty	Check presence. Must be present	E	
FA-L02-00-0368	FLUXResponseDocument/ValidationResultDocument, FLUXResponseDocument/ResponseCode	At least one occurrence if ResponseCode <= OK	E	

8.24. Rules for Respondent FLUXParty entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0392	RespondentFLUXParty/ID	Check presence. Must be present	E	
FA-L01-00-0393	RespondentFLUXParty/ID	Check attribute schemeID. Must be FLUX_GP_PARTY	E	
FA-L03-00-0394	RespondentFLUXParty/ID	Check if RespondentFLUXParty/ID is consistent with FLUX TL values.	E	The party sending the response must be the same as the one from the FR value of the FLUX TL envelope. Only the part before the first colon in the FR value is to be considered: E.g. ABC: something => only ABC refers to the party for the purpose of this rule.

8.25. Rules for ValidationResultDocument entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0395	ValidationResultDocument/ValidatorID	Check presence. Must be present.	E	
FA-L01-00-0396	ValidationResultDocument/ValidatorID	Check schemeID. Must be FLUX_GP_PARTY.	E	
FA-L01-00-0555	ValidationResultDocument/ValidatorID	Check value. Must be value from the code list specified in schemeID.	E	
FA-L02-00-0554	ValidationResultDocument/ValidationQualityAnalysis, FLUXResponseDocument/ResponseCode	At least one occurrence must be present if ResponseCode<> OK	E	

8.26. Rules for ValidationQualityAnalysis entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0397	ValidationQualityAnalysis/ID	Check presence. Must be present.	E	
FA-L01-00-0398	ValidationQualityAnalysis/ID	Check schemeID. Must be FA_BR.	E	
FA-L01-00-0399	ValidationQualityAnalysis/ID	Check value. Code must be value of the specified code list in schemeID.	E	Note: only active rules, valid at report creation date and applicable to the context, are to be considered.
FA-L02-00-0400	ValidationQualityAnalysis/LevelCode	Check presence. Must be present.	E	
FA-L01-00-0401	ValidationQualityAnalysis/LevelCode	Check listID. Must be FLUX_GP_VALIDATION_LEVEL.	E	
FA-L01-00-0402	ValidationQualityAnalysis/LevelCode	Check Code. Must be in the list specified in listID.	E	
FA-L01-00-0403	ValidationQualityAnalysis/TypeCode	Check listID. Must be FLUX_GP_VALIDATION_TYPE.	E	
FA-L01-00-0406	ValidationQualityAnalysis/TypeCode	Check value of TypeCode. Must be in the list specified in listID.	E	
FA-L00-00-0404	ValidationQualityAnalysis/Result	Must be non-empty	W	
FA-L01-00-0405	ValidationQualityAnalysis/ReferencedItem, ValidationQualityAnalysis/TypeCode	At least one non-empty occurrence if TypeCode is ERR or WAR.	W	x-path to the location in the FLUXFAReportMessage causing the rule to fail

9. XML EXAMPLES

XML examples will be provided on <https://www.neafc.org/mdr>.

10. CODE LISTS

All XSDs and code lists are listed on <https://www.neafc.org/mdr>.² (.

The values mentioned in above tables for the listID attribute refer to a code list alias in the table below, which can be used to find the code list in MDR or query the code lists from MDM services using the FLUX Master Data Management specifications³⁷.

Code list alias (ListID in the XSD)
FA_BR
FA_CATCH_TYPE
FA_DEVICE_GEAR_ATTACHMENT
FA_GEAR_CHARACTERISTIC
FA_GEAR_PROBLEM
FA_NEAFC_STOCK
FA_REASON_ARRIVAL
FA_REASON_DISCARD
FA_REASON_ENTRY
FA_TRIP_ID_TYPE
FA_VESSEL_ROLE
FAO_AREA
FAO_SPECIES
FISH_SIZE_CLASS
FLUX_CONTACT_ROLE
FLUX_FA_FMC
FLUX_FA_REPORT_TYPE
FLUX_FA_TYPE
FLUX_GP_MSG_ID
FLUX_GP_PARTY
FLUX_GP_PURPOSE
FLUX_GP_RESPONSE
FLUX_GP_VALIDATION_LEVEL
FLUX_GP_VALIDATION_TYPE
FLUX_LOCATION_CHARACTERISTIC
FLUX_LOCATION_TYPE
FLUX_UNIT
FLUX_VESSEL_ID_TYPE
FLUX_VESSEL_POSITION_TYPE
GEAR_TYPE
LOCATION
MANAGEMENT_AREA
RFMO
STAT_RECTANGLE
TERRITORY
VESSEL_ACTIVITY

³⁷ FLUX BRS: P1000 – 10; MDM domain

11. FLUX TL ENVELOPE PARAMETERS

The following FLUX TL parameters must be used for transmission of FLUX FA Report Messages and the related FLUX Response messages described in this document.

Common name	FLUX TL Envelope Tag name	Value	Remark
Dataflow name	DF	urn:un:unece:uncefact:fisheries:FLUX:FA:XNE:1	According to format: urn:un:unece:uncefact:fisheries:FLUX:[domain]:[context]:[version]
Timeout DateTime	TODT	DateTime (in UTC) of creation of the envelope + - 72 hours.	Value expressed as XSD DateTime in UTC. The TODT offset parameter (FLUX TL) should be configured to 72 hours. The FLUX TL will retry an undelivered envelope in a given schedule until the TODT is reached.
Acknowledge Receipt	AR	True	This parameter indicates that FLUX TL will always return an acknowledgement of receipt when the message has been received by the FLUX TL destination node. Note: a non-delivery message is always sent when the recipient cannot be reached, or timeout (TODT) time has been expired.

12. VERSIONING

Version	Date	Notes
1.0	27-Mar-2019	Complete revision of draft document.
1.1	03-Oct-2019	Update 11. FLUX TL envelope parameters and to 14.1 including table 38 gear characteristics
1.1.1	21-May-2020	Spelling corrections
1.1.2	03-Sep-2020	Amended as per ERS-IMP-2020-05-04: Data element reference in business rule FA-L01-00-0465 corrected. Corrected reference to the attribute schemeID for identifier fields where listID was mentioned. Edits in footnote 39 (annex 14.1) have been corrected.

13. CONTACT

Rachel Lewsley
Information Technology and Web Production Officer

Anthony Early
IT and Systems Development Officer

Please address enquiries for these Officers to info@neafo.org so the query can be routed as appropriate

14. ANNEXES:

14.1. Gear characteristics to be reported for each gear type.

The tables below show the description of the gear attribute codes and which of those are mandatory to be provided for each type of gear³⁸, where a business rule has been established. Gear characteristics which are only mandatory in certain conditions where a business rule cannot be established are not marked here but are required according to the NEAFC Scheme and Measures.

Table 37: Description of the possible gear attribute codes

Code	EN_Description
ME	Mesh size
MT	Model of trawl ³⁸ e.g. side: OTB-1, OTM-1; stern: OTB-2, OTM-2
GM	Gear dimension by length or width of the gear - in metres: <ul style="list-style-type: none"> • length of beams • trawl – perimeter of opening • seine nets – overall length • purse seine – length • purse seine – one boat operated – length • width of dredges • gill nets – length
GN	Gear dimension by number: for example <ul style="list-style-type: none"> • number of trawls • number of beams • number of dredges • number of pots • number of hooks
HE	Height
NI	Number of lines
NN	Number of nets in the fleet
NL	Nominal length of one net in a fleet
QG	Quantity of gear on board
GD	Gear description
DA	Devices and attachments ³⁹
GO	Gear bar dimension

³⁸ According to FAO International Standard Statistical Classification of Fishing Gear (ISSCFG). Coordinating Working Party on Fishery Statistics (CWP) Handbook of Fishery Statistical Standards, Section M: FISHING GEAR CLASSIFICATION (rev 1, 2013). MDR code list GEAR_TYPE contains a mapping from the previous to new version of this classification.

³⁹ Included in appendix II to Annex II - B Main Categories of Devices and Attachments

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Table 38: The use of gear characteristics

GE ⁴⁰	Description	ME	GO	GM	HE	NL	GN	NI	NN	QG	MT	GD	DA
	Unit >	Measure (MMT)		Measure (MTR)			Quantity				Text		Code
SURROUNDING NETS													
PS	Purse seines												
<i>PS1⁴¹</i>	- one boat operated purse seines												
<i>PS2⁴¹</i>	- two boats operated purse seines												
LA	Surrounding nets without purse lines												
SUX	Surrounding nets (nei)												
SEINES													
SB	Beach seines												
SV	Boat seines												
<i>SDN⁴¹</i>	- Danish seines												
<i>SSC⁴¹</i>	- Scottish seines												
<i>SPR⁴¹</i>	- pair seines												
SX	Seine nets (nei)												
TRAWLS													
TBB	Beam trawls						X						
OTB	Single boat bottom otter trawls						X						
<i>OT⁴¹</i>	Otter trawls (nei)						X						
OTT	Twin bottom otter trawls						X						
OTP	Multiple bottom otter trawls						X						
PTB	Bottom pair trawls						X						
<i>PT⁴¹</i>	Pair trawls (nei)						X						
TB	Bottom trawls (nei)						X						
<i>TBN⁴¹</i>	Bottom trawls nephrops trawls						X						
<i>TBS⁴¹</i>	Bottom trawls shrimp trawls						X						
<i>PUK</i>	Bottom trawls - electric beam trawls (Pulse Beam)						X						
<i>PUL</i>	Bottom trawls - electric sumwing trawls (Pulse Wing)						X						
OTM	Single boat midwater otter trawls	X					X						
PTM	Midwater pair trawls	X					X						
TM	Midwater trawls (nei)	X					X						
<i>TMS⁴¹</i>	Midwater shrimp trawls						X						
TSP	Semipelagic trawls	X					X						
TX	Trawls (nei)						X						

⁴⁰ Gear type as defined in MDR code list GEAR_TYPE

⁴¹ Code from ISSGFC 1980, kept in GEAR_TYPE code list in MDR for backward compatibility with legacy systems.

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GE	Description	ME	GO	GM	HE	NL	GN	NI	NN	QG	MT	GD	DA
	Unit >	Measure (MMT)		Measure (MTR)			Quantity				Text		Code
DREDGES													
DRB	Towed dredges						X						
DRH	Hand dredges						X						
DRM	Mechanized dredges						X						
DRX	Dredges (nei)						X						
LIFT NETS													
LNP	Portable lift nets												
LNB	Boat-operated lift nets												
LNS	Shore-operated stationary lift nets												
LN	Lift nets (nei)												
FALLING GEAR													
FCN	Cast nets												
FCO	Cover pots/Lantern nets												
FG	Falling gear (nei)												
GILLNETS AND ENTANGLING NETS													
GNS	Set gillnets (anchored)			X									
GND	Drift gillnets			X									
GNC	Encircling gillnets			X									
GNF	Fixed gillnets (on stakes)			X									
GTR	Trammel nets			X									
GTN	Combined gillnets-trammel nets			X									
GEN	Gillnets and entangling nets (nei)			X									
GN ⁴¹	Gillnets (nei)			X									
TRAPS													
FPN	Stationary uncovered pound nets												
FPO	Pots						X						
FYK	Fyke nets												
FSN	Stow nets												
FWR	Barriers, fences, weirs, etc.												
FAR	Aerial traps												
FIX	Traps (nei)												
HOOKS AND LINES													
LHP	Handlines and hand-operated pole-and-lines						X						
LHM	Mechanized lines and pole-and-lines						X						
LLS	Set longlines						X						
LLD	Drifting longlines						X						
LL	Longlines (nei)						X						

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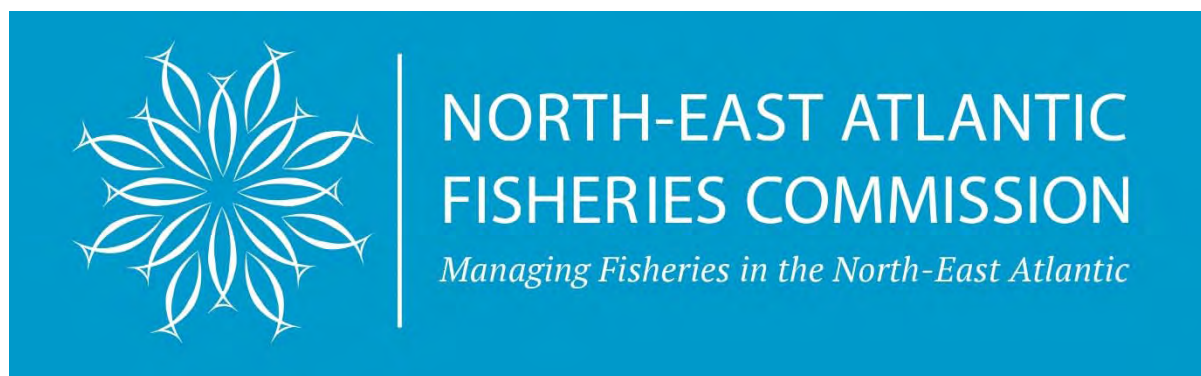
LVT	Vertical lines						X						
LTL	Trolling lines						X						
LX	Hooks and lines (nei)						X						
GE	Description	ME	GO	GM	HE	NL	GN	NI	NN	QG	MT	GD	DA
	Unit >	Measure (MMT)		Measure (MTR)			Quantity			Text	Code		
MISCELLANEOUS GEAR													
HAR	Harpoons												
MHI	Hand implements (Wrenching gear, Clamps, Tongs, Rakes, Spears)												
MPM	Pumps												
MEL	Electric fishing												
MPN	Pushnets												
MSP	Scoopnets												
MDR	Drive-in nets												
MDV	Diving												
MIS	Gear nei												
<i>HMX⁴¹</i>	Harvesting machines (nei)												
<i>RG⁴¹</i>	Recreational fishing gear												
GEAR NOT KNOWN													
NK	Gear not known												

Recommendation 14 : 2021

NEAFC FLUX Fishing Activities ERS Implementation v1.1.2 (September 2020)

**Amendment to Recommendation 21:2020 on introducing the ERS Implementation document
in Annex IX of the Scheme (FLUX Vessel Position)**

As proposed by Permanent Committee on Monitoring and Compliance (PECMAC), the Commission hereby adopts the following recommendation pursuant to Article 8 of the Convention:



NEAFC FLUX Vessel Position Implementation Document

Version 1.0.1

September 2020

(Amendment to NEAFC Recommendation 21:2020)

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1. INTRODUCTION

This document aims to describe the implementation of Vessel Position XSD in the context of NEAFC.

Submissions of reports will be done through the FLUX Transportation Layer. The technical and functional documentation is published on the Master Data Register (MDR) page of NEAFC website¹.

2. REFERENCES

- UN/CEFACT P1000 FLUX Standard v1.0²:
 - FLUX BRS: P1000 – 1; General principles (version 2.1).
 - FLUX BRS: P1000 – 7; Vessel Position domain (version 2.0).
- UN/CEFACT FLUXVesselPositionMessage_4p0.xsd³

The documents Code Lists which are specific to Vessel Position domain are published on Master Data Register page of NEAFC.

3. LEGAL BASIS

NEAFC Scheme of Control and Enforcement⁴ and current NEAFC Management Measures and Recommendations⁵

¹ <https://www.neafc.org/mdr>

² http://www.unece.org/cefact/brs/brs_index.html

³ http://www.unece.org/fileadmin/DAM/cefact/xml_schemas/D15B.zip

⁴ <https://www.neafc.org/scheme/contents>

⁵ https://www.neafc.org/managing_fisheries/measures/current

4. SCOPE

As shown on Figure 1, even if the message is provided by a Vessel, the scope of this document is limited to the transmission from a Flag State FMC, which has received the Vessel Position message⁶, to NEAFC according to the NEAFC scheme.

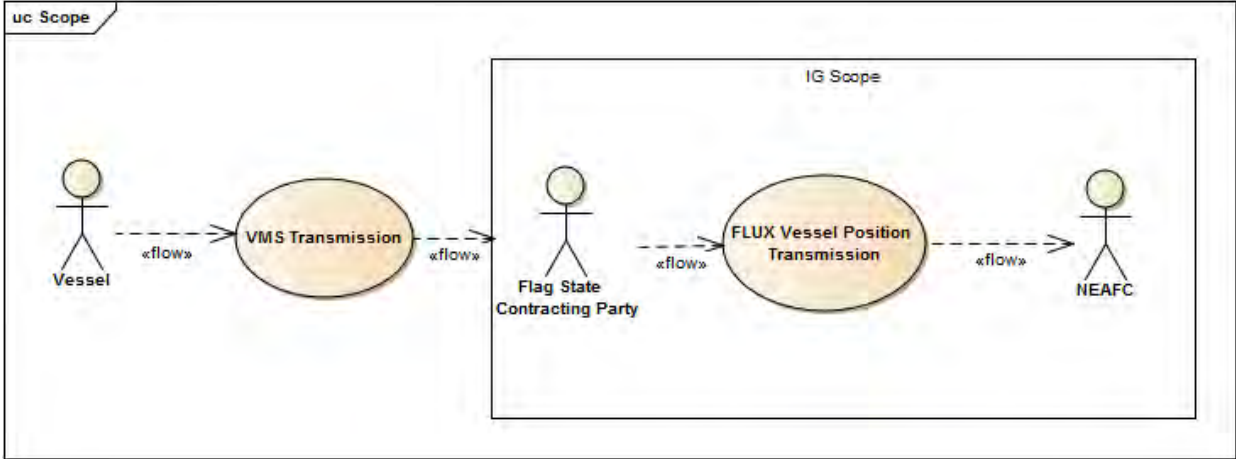


Figure 1 Implementing Guide Scope diagram

⁶ In theory, a FMC can use various methods for providing Geographical Position of a vessel, such as AIS device or a manual input based on a GPS, for filling-up Vessel Position message.

5. PROCEDURES

5.1. General Principles

The following activity diagram describes the normal procedure defined for the submission of every Vessel Position Messages sent between a Flag State FMC and NEAFC:

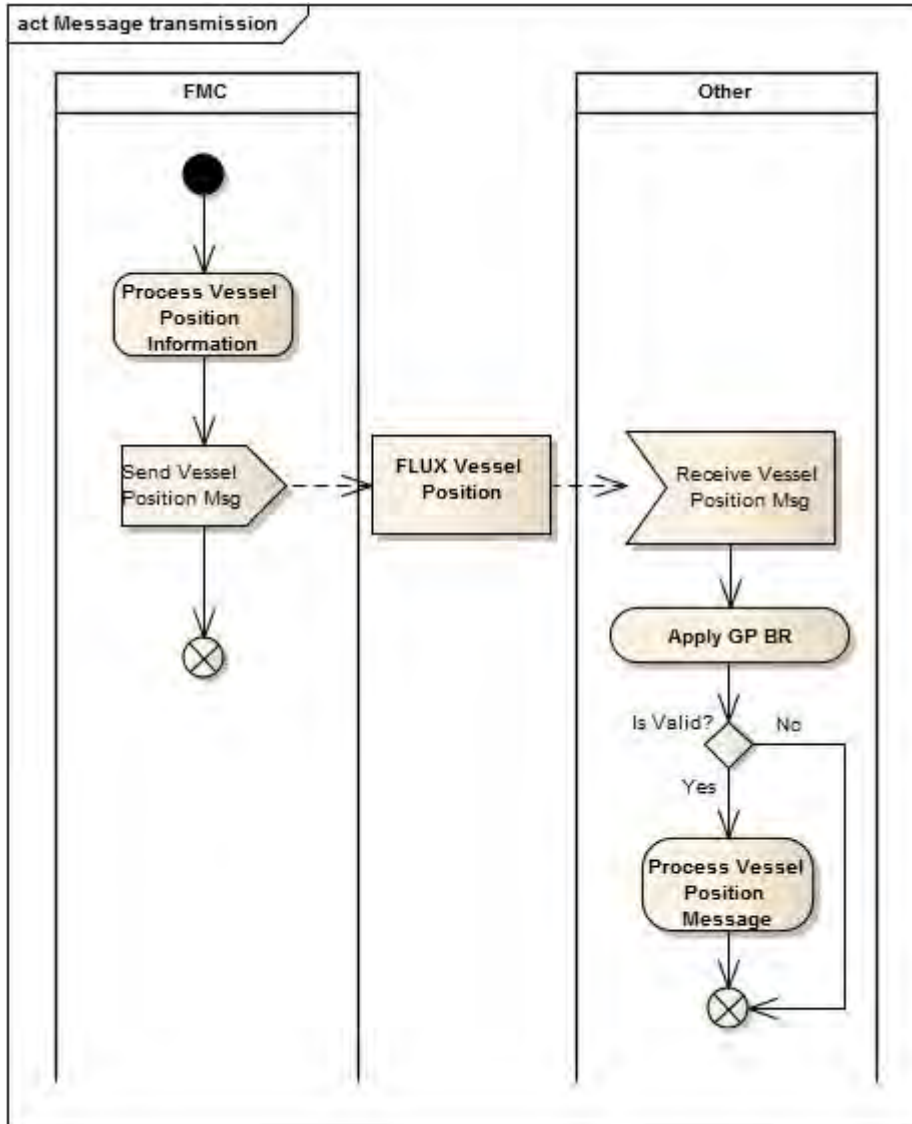


Figure 2 Message Transmission activity diagram

As shown in the diagram, "Apply GP BR" (Apply General Principles Business Rules) is a validation process which does:

- XML Validation level: Based on the definition in the XSD, the parser validates the structure and cardinality as well as compliance for mandatory elements of the XML provided⁷.
- Business Rules Validation level: a Business Rules Engine validates the content of XML according to the General Principles Business Rules definition⁸.

5.2. Business Continuity Plan

Business continuity provision for this system is provided for in Article 14.2 of NEAFC Information Security Management System (ISMS) that is available at <https://www.neafc.org/isms>

⁷ In general, only XSD element are defined as mandatory. Element attributes and facets remain optional.

⁸ Some specific business rules of this domain can withdraw or overwrite the definition of FLUX General Principles.

6. DATA MODEL (XSD) IMPLEMENTATION

The implementation of the Vessel Position Data Model applies the following general constraints at the level of XSD Element attributes:

- (1) For Code & Identifier Data Type: *listID* or *schemeID* attribute must be provided if it is not specifically defined in the definition of the element;
- (2) For DateTime Data Type: only *udt:DateTime* (of type *xsd:dateTime*) choice is used. The date and time must be in line with ISO8601 and expressed in UTC, unless explicitly mentioned otherwise. The format shall be *YYYY-MM-DDThh:mm:ss[.000000]Z*⁹;

6.1. Data Model Diagram

The following diagram describes the Vessel Position Data Model used for the implementation of transmission of *VesselPositionMessage*:

⁹ YYYY= year; MM= month, including leading 0 where month number is less than 10; DD= day of the month including leading 0 where day number is less than 10; T= the letter T to indicate the part of the time section; H24= hours of the day expressed with 2 digits using the 24-hour notation; MI=minutes expressed as 2 digits; SS=seconds expressed as 2 digits; [.000000]= optionally fractions of seconds may be included up to 6 digits, not including the brackets; Z= time zone, which must be Z (ie. UTC)

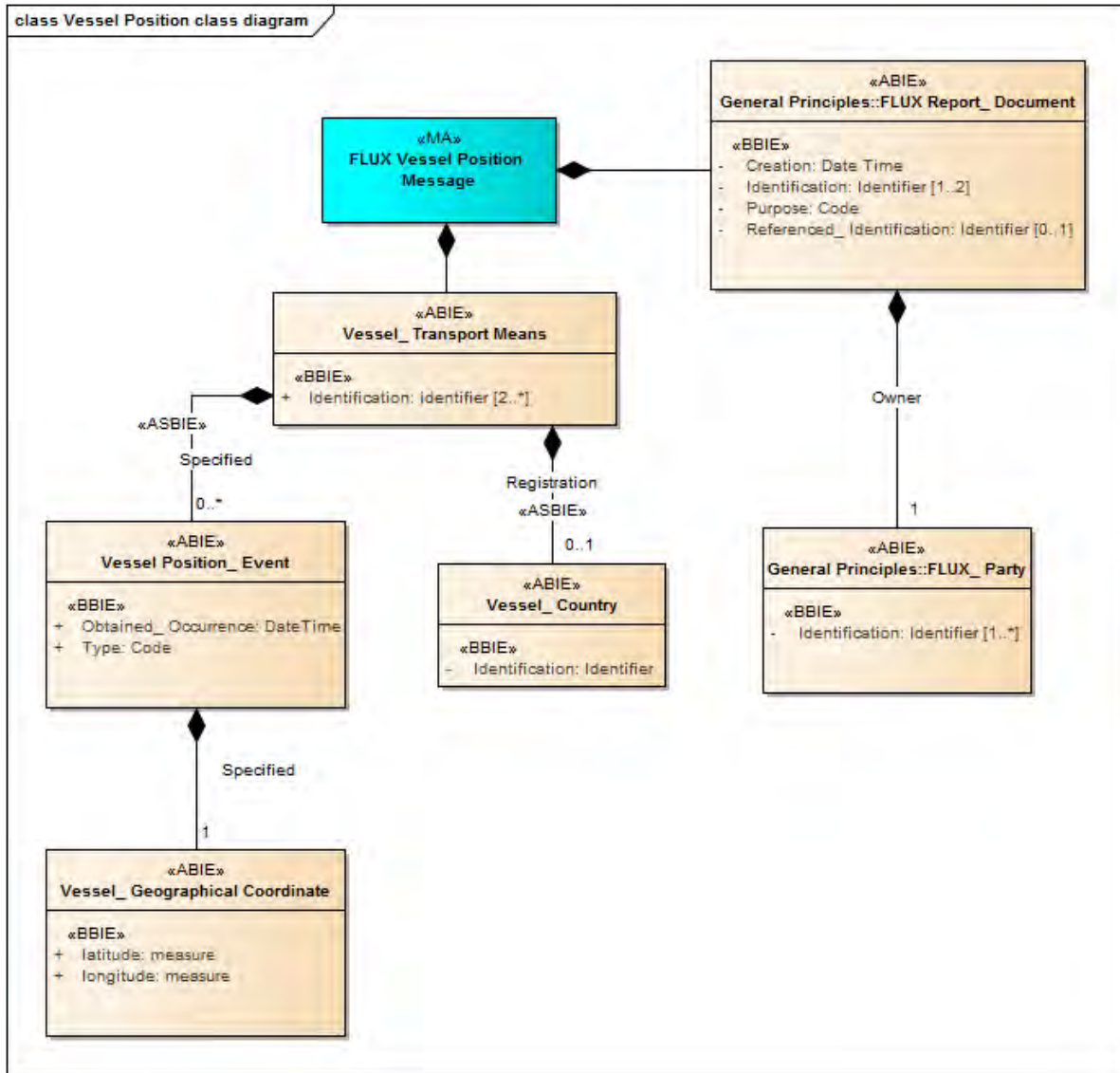


Figure 3 Data model for the FLUX Vessel Position Message used within this implementation document

6.2. Data Model Fields

The table below describes for each fields defined in the Data Model (XSD) the values that can be used:

Table 1 Data elements and attributes of a Vessel Position Message

Entity/Field Name	Data Type	Min	Max	Description	Remarks
FLUX Report Document	Assoc.	1	1	The document details for this FLUX vessel position message.	FLUX General Principles Entity
Identification	Identifier	1	1	The unique identification of the FLUX vessel position message	A UUID as defined in the RFC 4122 <i>schemeID=UUID</i>

Entity/Field Name	Data Type	Min	Max	Description	Remarks
Creation	DateTime	1	1	The date, time, date time of the creation of the FLUX vessel position message.	A UTC date time. Must be according to the definition provided in 6(2)
Purpose	Code	1	1	The code specifying the purpose of this FLUX report document, such as original, cancellation or replace.	Attribute <i>listID=FLUX_GP_PURPOSE</i> Reference: EDIFACT Code List 1225 (qDT UN02000125 - Message Function_Code). <i>Restriction: only value 9 is used in this context.</i>
Owner FLUX Party	Assoc.	1	1	Entity used to provide information on an individual, a group, or a body having a role in a Fisheries Language for Universal eXchange (FLUX) business function. Party has a legal connotation in a business transaction.	FLUX General Principles Entity
Identification	Identifier	1	1	An identifier of this FLUX party.	Attribute <i>schemeID=FLUX_GP_PARTY</i> ISO 3166-1 alpha-3 code of the country owning this report. e.g.: SWE
Vessel Transport Means	Assoc.	1	1	Entity used to provide the identification and characteristic information of a ship or boat.	
Identification	Identifier	2	*	An identifier for this vessel	At least 2 vessel IDs of which one is <i>schemeID=IRCS</i> & Value= IRCS number must be provided. The other shall be <i>schemeID=UVI</i> where IMO is applicable to the vessel; ¹⁰ alternatively the contracting party can use another identifier with <i>schemeID</i> from the code list <i>FLUX_VESSEL_ID_TYPE</i> .

¹⁰ Annex IV(a) of the Scheme: Radio Call sign and IMO number is required, where IMO is not applicable (for Vessels under IMO resolution A.1078 (28)), use of either CP Internal reference number or Vessel external registration is required.

Entity/Field Name	Data Type	Min	Max	Description	Remarks
Registration Vessel Country	Assoc.	1	1	The country of registration of this transport means vessel.	
Identification	Identifier	1	1	The identifier for this vessel country.	Use Code Countries code list in MDR. schemeID = TERRITORY ISO 3166-1 alpha-3 code of the country where the vessel is registered (flag state).
Specified Vessel Position Event	Assoc.	1	*	The general information of the VMS message.	More than one position can be provided.
Obtained Occurrence	DateTime	1	1	The date and time when the position of the vessel was taken by the vessel's navigation equipment.	The UTC date time when the position was obtained by the vessel navigation equipment, transmitted by the VMS system on-board of the vessel. Must be according to the definition provided in 6(2)
Type	Code	1	1	The code specifying the type of vessel position event.	Attribute <i>listID</i> FLUX_VESSEL_POSITION_TYPE Example of values are: "ENTRY", "EXIT", "POS", or "MANUAL."
Speed Value	Measure	0	1	The measure of speed of the vessel for this vessel position event.	Mandatory. In knots. Maximum 2 significant decimals. Optional when all the following conditions are met: - TypeCode= EXIT - Message addressed to Third party or RFMO - The element is defined as optional in the agreement with the Third Party or RFMO

Entity/Field Name	Data Type	Min	Max	Description	Remarks
Course Value	Measure	0	1	The measure of course of the vessel for this vessel position event.	Mandatory. In degrees and decimal degrees. Maximum 2 significant decimals. Optional when all the following conditions are met: - TypeCode= EXIT Message addressed to Third party or RFMO - The element is defined as optional in the agreement with the Third Party or RFMO
Specified Vessel Geographical Coordinate	Assoc.	1	1	The latitude and longitude of a specified place, by which a vessel's relative situation on the globe is known. The height above the sea level constitutes a third coordinate.	Geographical Coordinates Position of the vessel transmitted by the VMS system at Obtained DateTime. Altitude and System information are not used in context of this implementation.
Latitude	Measure	1	1	The measure of the latitude as an angular distance north or south from the Equator meridian to the meridian of a specific place for this vessel geographical coordinate.	Reference ISO 6709. Coordinate expressed in WGS84, decimal degree notation, using a precision of at least 3 and maximum 6 decimal positions. Positive coordinate refers to North of equator. Negative coordinate refers to South.
Longitude	Measure	1	1	The measure of the longitude as an angular distance east or west from the Greenwich meridian to the meridian of a specific place for this vessel geographical coordinate.	Reference ISO 6709. Coordinate expressed in WGS84, decimal degree notation, using a precision of at least 3 and maximum 6 decimal positions. Positive coordinate refers to East of Greenwich meridian. Negative coordinate refers to West.

7. XML EXAMPLES¹¹

```

<?xml version="1.0" encoding="utf-8"?>
<rsm:FLUXVesselPositionMessage
xmlns:rsm="urn:un:unece:uncefact:data:standard:FLUXVesselPositionMessage:4"
xmlns:ram="urn:un:unece:uncefact:data:standard:ReusableAggregateBusinessInformationEntity:18"
xmlns:udt="urn:un:unece:uncefact:data:standard:UnqualifiedDataType:18">
  <rsm:FLUXReportDocument>
    <ram:ID schemeID="UUID">c133b211-0b0e-4358-893c-7afb5437bd61</ram:ID>
    <ram:CreationDateTime>
      <udt:DateTime>2001-12-17T09:30:47.0Z</udt:DateTime>
    </ram:CreationDateTime>
    <ram:PurposeCode schemeID="FLUX_GP_PURPOSE">9</ram:PurposeCode>
    <ram:OwnerFLUXParty>
      <ram:ID schemeID="FLUX_GP_PARTY">SWE</ram:ID>
    </ram:OwnerFLUXParty>
  </rsm:FLUXReportDocument>
  <rsm:VesselTransportMeans>
    <ram:ID schemeID="CFR">SWE000007880</ram:ID>
    <ram:ID schemeID="EXT_MARKING">S-381</ram:ID>
    <ram:ID schemeID="IRCS">EI6207</ram:ID>
    <ram:ID schemeID="UVI">1234567</ram:ID>
    <ram:RegistrationVesselCountry>
      <ram:ID schemeID="TERRITORY">SWE</ram:ID>
    </ram:RegistrationVesselCountry>
    <ram:SpecifiedVesselPositionEvent>
      <ram:ObtainedOccurrenceDateTime>
        <udt:DateTime>2001-12-17T09:30:47.0Z</udt:DateTime>
      </ram:ObtainedOccurrenceDateTime>
      <ram:TypeCode listID="FLUX_VESSEL_POSITION_TYPE">POS</ram:TypeCode>
      <ram:SpeedValueMeasure>8.3</ram:SpeedValueMeasure>
      <ram:CourseValueMeasure>50</ram:CourseValueMeasure>
      <ram:SpecifiedVesselGeographicalCoordinate>
        <ram:LatitudeMeasure>50.560</ram:LatitudeMeasure>
        <ram:LongitudeMeasure>9.123456</ram:LongitudeMeasure>
      </ram:SpecifiedVesselGeographicalCoordinate>
    </ram:SpecifiedVesselPositionEvent>
  </rsm:VesselTransportMeans>
</rsm:FLUXVesselPositionMessage>

```

¹¹ Note that a single Position in each message reflects a real time reporting implementation. It is possible to send more than one position in each position message which could be used for example when pulling data from another system

8. CODE LISTS

All XSDs and code lists are listed in the NEAFC Master Data Register

The values mentioned in above tables for the *listID* attribute refer to index of this MDR. This listID value can be used to retrieve the code values using the FLUX Master Data Management specifications¹².

Code list alias
FLUX_GP_PURPOSE
FLUX_GP_PARTY
FLUX_VESSEL_POSITION_TYPE
TERRITORY
FLUX_VESSEL_ID_TYPE

9. FLUX TL ENVELOPE PARAMETERS

The following FLUX TL parameters must be used for transmission of Vessel Position Messages.

Common name	FLUX TL Envelope Tag name	Value	Remark
Dataflow name	DF	urn:un:unece:uncefact:data:standard:FLUXVesselPositionMessage:4	
Timeout DateTime	TODT	DateTime (in UTC) of creation of the envelope + 72 hours.	Value expressed as XSD DateTime in UTC. Must be according to the definition provided in 6(2) The FLUX TL will retry an undelivered envelope in a given schedule until the TODT is reached.
Acknowledge Receipt	AR	True	Each VP message will be positively acknowledged with 201 status code on receipt by the destination node. Note: a non-delivery message is always sent when the recipient cannot be reached and timeout (TODT) time has expired.

10. CONTACT

Please address enquiries to info@neafc.org so the query can be routed as appropriate

¹² FLUX BRS: P1000 – 10; MDM domain

11. VERSIONING

Version	Comment	Date
1.0	<p>Recommendation 21: 2020 Adopted at 38th Annual Meeting. Based on EU Implementation document v2.1. Changed legal references. Modified the cardinality of the vessel ID data element in Error! Reference source not found., as well as in Error! Reference source not found. aligning it with the requirements of the Scheme. Changed the TODT offset value to 72 hours (4320 minutes). Document clean-up by DG MARE.</p>	15-Nov-2019
1.0.1	<p>Amended as per ERS-IMP-2020-05-03: General editorial review. -Added reference to schemeID for FLUXReportDocument/ID -Corrected code list to be used for FLUXReportDocument/FLUXOwnerParty/ID -Corrected the remarks field for the vessel identification to reflect actual practice. -Clarified remark related to the listID to be used for VesselTransportMeans/SpecifiedVesselPositionEvent/ TypeCode -Corrected inconsistencies in the sample. -Corrected the list of code lists being used. -Changed the AR parameter so that the sender receives an acknowledgement for every single transmission.</p>	03-Sep-2020

**Recommendation to Adopt Version 2 of the NEAFC FLUX Fishing Activities
ERS Implementation Document**

The Commission hereby adopts the following recommendation pursuant to Article 8 of the Convention:



**NEAFC FLUX Fishing Activities
ERS Implementation
Document**

Version 2.0

November 2020

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1. INTRODUCTION

This document describes the implementation of the UN/CEFACT standard FLUX for exchange of fishing activity information (the standard) as outlined in the NEAFC Scheme of Control and Enforcement (the Scheme) and should be read in conjunction with the Scheme.

In chapters 3 and 4 the scope, legal basis and references are covered. Chapter 5 describes the stakeholders and terminology used and chapter 6 describes the procedures.

In chapter 7 the NEAFC implementation of the data model for Fishing Activity Reports (7.1) and Responses (7.2) is described and Chapter 8 details the common set of business rules that should be implemented by parties exchanging data in NEAFC context.

A reference to XML examples is provided in chapter 9 and chapter 10 contains an overview of the code list aliases used in this document and a reference to the Master Data register. Finally Chapter 11 specifies the required parameters for the FLUX TL envelope when transmitting the messages described in this document.

The targeted audience of this document is business and technical staff responsible for system implementation of the fishing activities domain in NEAFC context.

2. GLOSSARY

AIS	Automatic Identification System
BR	Business Rule
BRS	Business Requirements Specification
CP	Contracting Party
EEZ	Exclusive Economic Zone
ERS	Electronic Reporting System
FA	Fishing Activity
FAO	Food and Agriculture Organization of the United Nations
FLAP	Fishing Licenses, Authorisations and Permits domain
FLUX	Fisheries Language for Universal eXchange
FMC	Fisheries Monitoring Centre
GP	General Principles
IRCS	International Radio Call Sign
ISMS	Information Security and Management System
ISO	International Organization for Standardization
MDR	Master Data Register
NEAFC	North-East Atlantic Fisheries Commission
RFMO	Regional Fisheries Management Organization
TL	Transportation Layer (software to exchange UN/FLUX messages)
UN/CEFACT	United Nations Centre for Trade Facilitation and Electronic Business
UN/FLUX	The FLUX standard under United Nations umbrella
UTC	Coordinated Universal Time
UUID	Universally Unique Identifier
UVI	Universal Vessel Identifier
VMS	Vessel Monitoring System
WGS84	World Geodetic System 1984
XML	eXtensible Markup Language
XSD	XML Schema Definition

3. LEGAL BASIS AND SCOPE

The implementation of the standard applies within the scope of the Scheme.

The exchange of validated fishing activity information is based on the flag State or Contracting Party principle. The Contracting Party plays the role of a report provider to other stakeholders, ensuring fishing activity information received from vessels flying their flag or the flag of any of its Member States are forwarded to the NEAFC Secretary according to the rules described in this document.

This document concerns exchange of electronic fishing activity information between Contracting Parties and the NEAFC Secretary (**Error! Reference source not found.**). For the sake of clarity the document sometimes mentions the exchanges between the master of the fishing vessel and the flag State authorities.

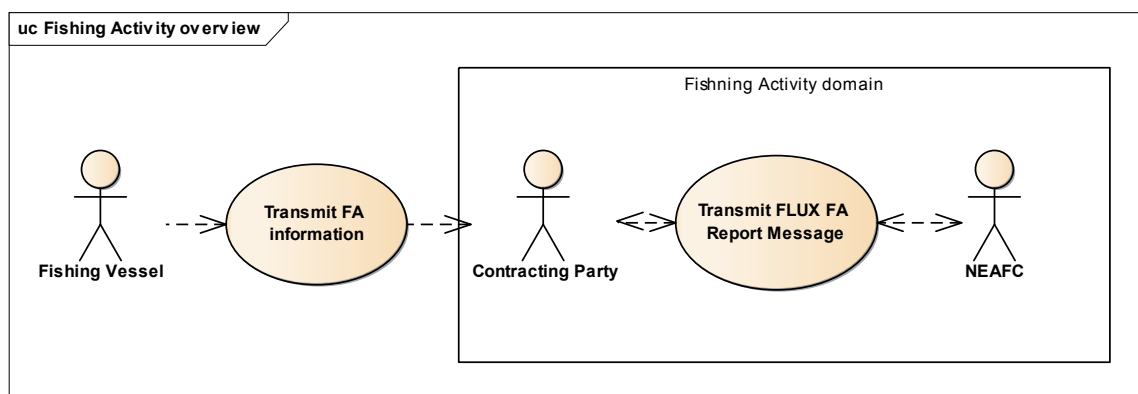


Figure 1 Fishing Activity domain - scope

For each fishing activity message (FLUX FA Report Message), the business rules and definition of mandatory, conditional and optional data elements and attributes are based on requirements defined in the following articles and annexes of the Scheme:

- Article 9 – Recording of Catch and Fishing Effort
- Article 12 – Communication of Fishing Activities
- Article 13 – Communication of Transhipments and of Port of Landing
- Article 14 – Communication to the Secretary
- Annex IV a) – Log Book Recordings

4. REFERENCES

The following **documents** are referenced in this document and are directly linked to this implementation document.

Standard	Version
FLUX BRS: P1000 – 1; General principles	2.1
FLUX BRS: P1000 – 3; Fishing Activity domain	1.1

The following **data structures** are referenced in this document and are directly linked to this implementation document.

Fishing Activities UN/CEFACT XSD	Version
FLUXFAReportMessage_3p1.xsd	3.1
FLUXResponseMessage_6p0.xsd ¹	6.0

Other relevant reading to provide more context to the data model described in this implementation document.

Standard	Version
FLUX BRS: P1000 – 2; Fishing Vessel domain	3.2
FLUX BRS: P1000 – 7: Vessel Position domain	2.0
FLUX BRS: P1000 – 9: Fishing Licence Authorization & Permit (FLAP) domain	1.1

The documents are available on the Master Data Register page of the NEAFC website at <https://www.neafc.org/mdr>².

¹ The response to a FLUX FA Report Message or a FLUX FA Query Message is a general principles response.

² <https://www.neafc.org/mdr>

5. STAKEHOLDERS AND TERMINOLOGY

5.1. Stakeholders and their main responsibilities related to data exchanges

Stakeholder	Responsibility
Flag State or Contracting Party	<ul style="list-style-type: none"> • Store all data related to fishing activities received from the master of vessels carrying its flag. • Validate data received from the vessels carrying its flag, as a minimum according to the set of validation and verification rules⁴. • Send to the NEAFC Secretary validated information on fishing activities of its vessels that are or will be in the Regulatory Area. • Have fall-back procedures³ in place to ensure timely exchange of relevant data. • Investigate and where possible correct and resend fishing activity messages that did not pass the validation rules applied by the receiving party. • Forward return message information to the master of the vessel.
Flag State or Contracting Party with inspection presence	<ul style="list-style-type: none"> • Receive from the NEAFC Secretary, fishing activity data of the vessels of other contracting parties in the NEAFC Regulatory Area, as set out in the Scheme.
NEAFC Secretary	<ul style="list-style-type: none"> • Receive, validate⁴ and store data from all vessels covered by the scope of the Scheme. • Have fall-back procedures³ in place to ensure timely exchange of relevant data. • Investigate and inform the Contracting Party if the received fishing activity messages did not pass the validation business rules.

³ See section 6.5

⁴ Validation of fishing activity messages (FLUX FA Report Message) according to principles described in section 6.2.1 and the set of validation and verification rules as described in chapter 8 of this document.

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	<ul style="list-style-type: none">• Forward or make available to a Contracting Party with active inspection presence validated information on fishing activities related to the NEAFC Regulatory Area.• Forward, where relevant, to any Contracting Party validated information on notifications of arrival to port with the intention to land catches taken or on-loaded in the NEAFC Regulatory Area.
Master of the fishing vessel	Report in an accurate and timely manner all fishing activity information to its flag state in accordance to all applicable rules, so that the flag State or Contracting Party can forward the required fishing activity information to the Secretariat.

5.2. Terminology

The purpose of this section is to clarify the technical terminology used in the UN/CEFACT FLUX standard and how it relates to terminology used in the Scheme.

The diagram in **Error! Reference source not found.** illustrates how fishing activity business information is reported as part of reports and how these reports are grouped into a message for transmission.

Fishing activity business information, such as Date/time, location, gear used and catch details, describes the activity and is recorded in a **Fishing Activity (Error! Reference source not found.(3))**. A fishing activity may also contain a reference to the **fishing trip** it belongs to.

Fishing activities are recorded in **Reports (Error! Reference source not found.(2))**.

Typically a **Report** contains information about one **Fishing Activity**. Examples of Reports are an entry into area report, daily catch report, or transshipment report.

Each **Report** has a unique ID, which doesn't change, even if the report is transmitted several times within different **Messages**. It also contains the date and time of the transmission of the information from the vessel/reception by the FMC and an FMC marking where appropriate.

A **Report** can be corrected. In such case the original **Report** is replaced completely.

A **Report** can be cancelled. In such case the original **Report** is marked and is not applicable anymore. This is used for notification reports (e.g. prior notification of entry, exit)

Reports are communicated to NEAFC in **Messages (Error! Reference source not found.(1))**. A **Message** contains one or more **Reports**. Each **Message** transmitted has a unique ID. A Message cannot be corrected, nor cancelled.

Recommendation 16 : 2021

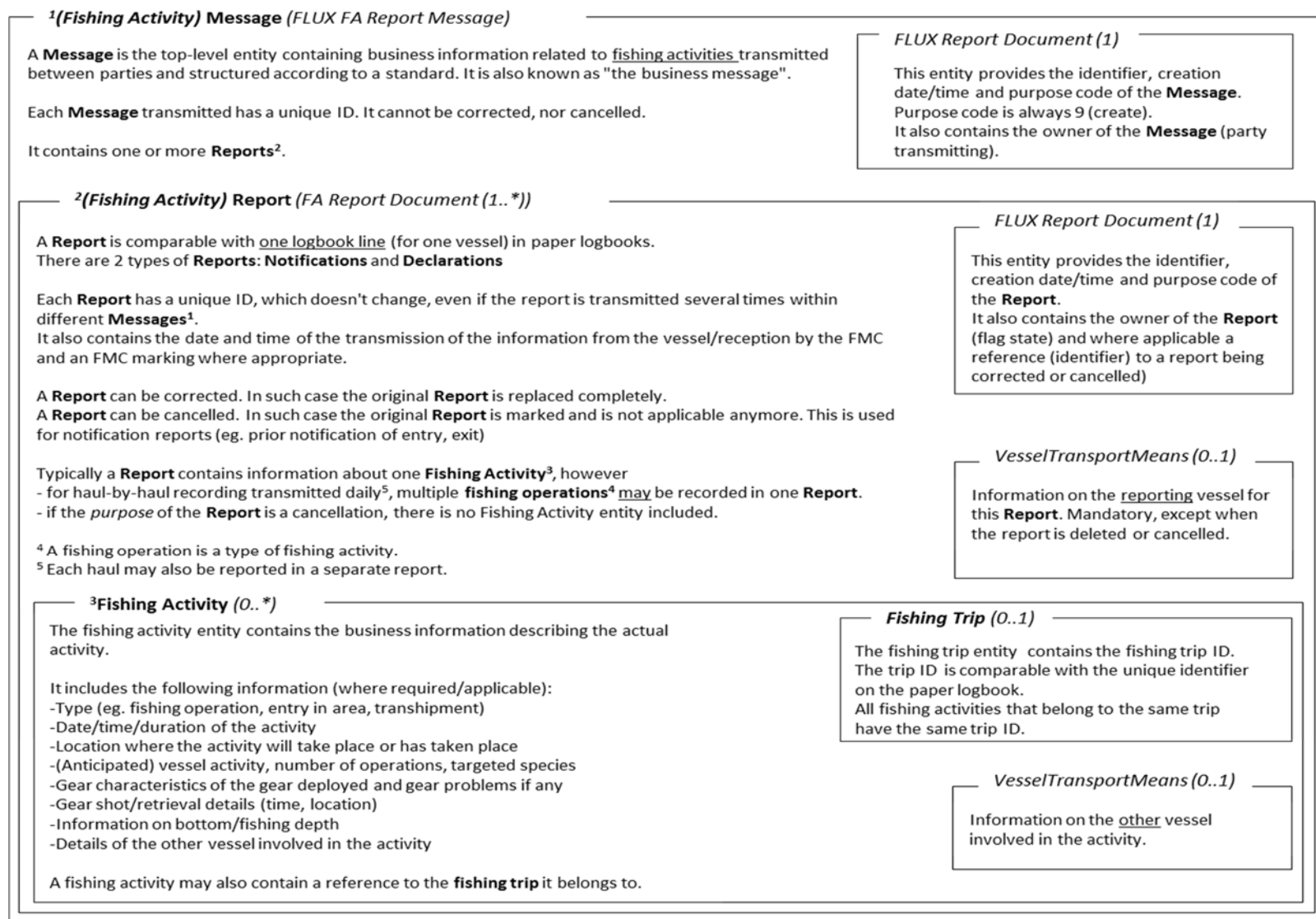


Figure 2 Diagram showing contents of a FLUX FA Report Message

5.2.1. Contents of a FLUX FA Report Message

- a) A Fishing Activity **Message**, or "message", is defined in art 1 letter s of the Scheme. The "FLUX FA Report Message" is the equivalent of this "message" in the UN/CEFACT FLUX standard. It is used for transmitting one or more Fishing Activity Reports.
- b) A Fishing Activity **Report**, or "report", is defined in art 1 letter r of the Scheme. The "FA Report Document" is the equivalent of this "report" in the UN/CEFACT FLUX standard. It is the standardized record made by the Contracting Party based on fishing activity information recorded and transmitted by the master of a fishing vessel.

There are 2 types of Fishing Activity Reports⁵

- a. Declarations⁶ are reports about a fishing activity that is taking or has taken place at the time of its recording and transmission.
- b. Notifications⁷ are reports about the intention to perform an activity in the future.

A Fishing Activity Report contains business information related to one or more "**Fishing Activities**", as defined in art. 1 letter e of the Scheme.

- c) The **Electronic fishing logbook** as defined in article 1 letter p of the Scheme consists of one or more Fishing Activity Reports.
- d) "FLUX Report Document" is an entity in the UN/CEFACT FLUX standard data model containing general information related to a FLUX FA Report Message or an FA Report Document. It contains identification, creation date/time, owner/sender, purpose and where applicable a reference to a report being corrected or cancelled.
- e) "Vessel Transport Means" is an entity in the UN/CEFACT FLUX standard containing business information related to the vessel, the master of the vessel and position of the vessel at time of transmission of the fishing activity information. Depending on the how this entity is related to the FA Report Document or Fishing Activity, the vessel information recorded is for the reporting vessel or for the other vessel involved in the activity.

⁵ See "Type" in Table 4.

⁶ Article 1 letter t of the Scheme.

⁷ Article 1 letter u of the Scheme.

- f) A Fishing Trip within the context of NEAFC is defined in the Scheme art. 1 letter q. In the UN/CEFACT FLUX standard, "Fishing Trip" is the entity that contains the trip identifier for the reported Fishing Activity.
- g) "Fishing Operation" is a type of Fishing Activity for reporting business information on fishing operations as described in article 12 of the Scheme.

5.2.2. Contents of a FLUX Response Message

After receiving a Fishing Activity Message and validating the Fishing Activity Reports it contains, NEAFC informs the Contracting Party of the status of the reports. This status is communicated in a Response Message.

The diagram in **Error! Reference source not found.** illustrates how a response message is structured. It contains the information of a return message.

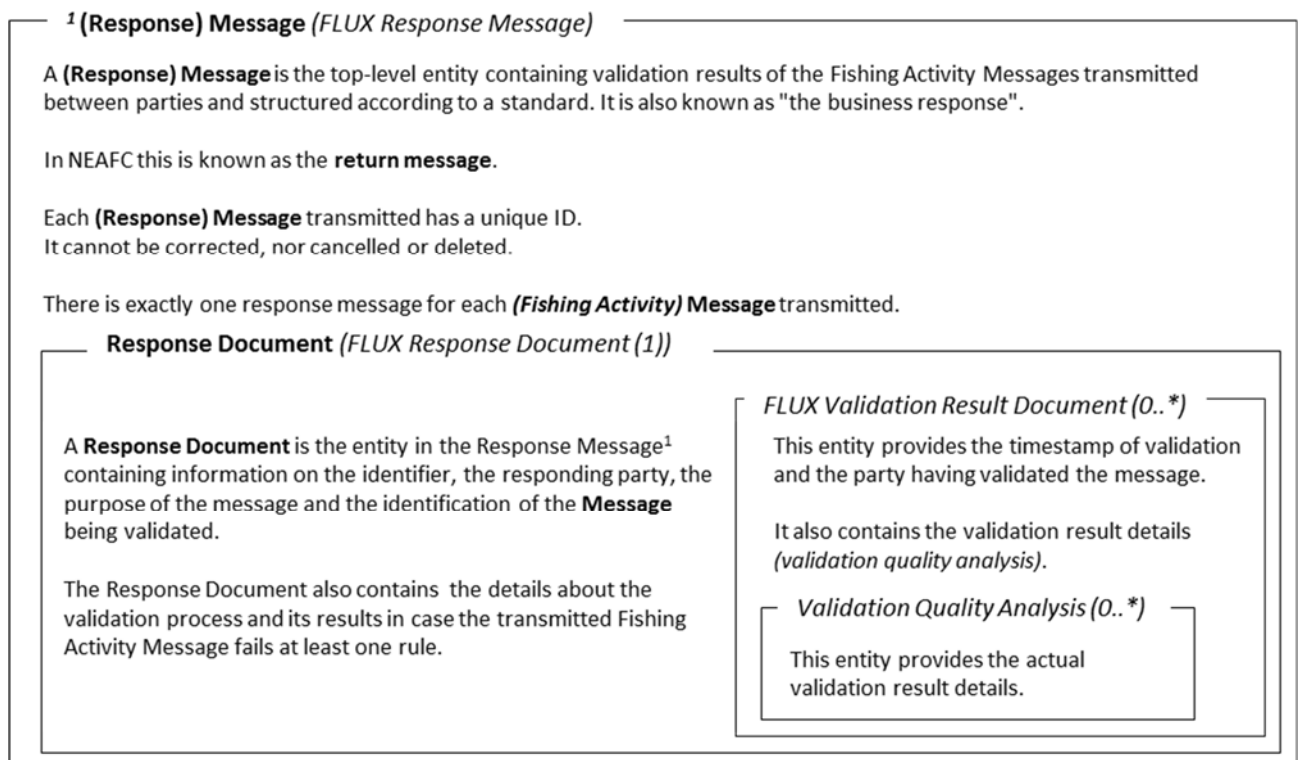


Figure 3 Diagram showing contents of a FLUX Response Message

A **Response Message** (FLUX Response Message) is used in the UN/CEFACT FLUX standard to report validation results about Fishing Activity Messages (FLUX FA Report Message). It contains all problems detected during the validation process. There is one FLUX Response Message for each FLUX FA Report Message.

6. PROCEDURES

6.1. Assumptions

The exchange of the Fishing Activity Messages described in this document will be done through the FLUX Transportation Layer for which technical and functional documentations are published on the NEAFC Master Data Register (MDR) <https://www.neafc.org/mdr>².

The diagrams in figures 2 and 3 (see section 5.2) illustrate how Fishing Activity Messages are structured. The diagram in **Error! Reference source not found.** illustrates how these Fishing Activity Messages are encapsulated into a transportation layer envelope to be transported by FLUX TL.

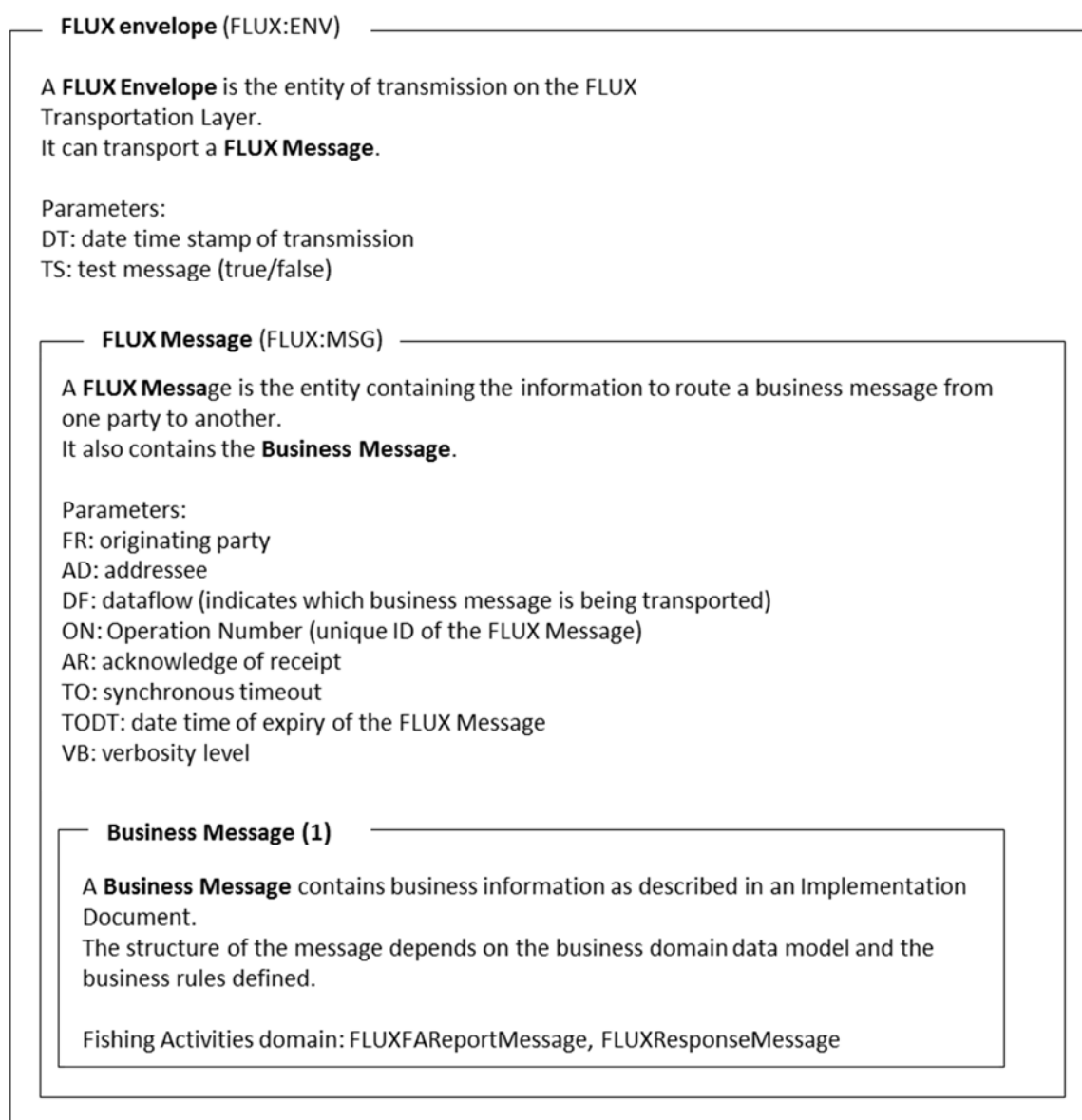


Figure 4 Diagram showing how Fishing Activity Messages are encapsulated in the FLUX TL transportation layer envelope

Furthermore, it is assumed that data exchanges are fully automated and immediate. No human approval or intervention should be needed for data exchanges and validation of well-formed messages for which the business rules are defined in this document.

6.2. General principles

The way to exchange Fishing Activity Reports between the Contracting Party and the NEAFC Secretary using the FLUX Transportation Layer is shown in the diagram below (**Error! Reference source not found.**).

The Contracting Party transmits a FLUX FA Report Message containing one or more FA Report Documents to the NEAFC Secretary. The NEAFC Secretary acknowledges receipt of the FLUX FA Report Message with a FLUX Response Message.

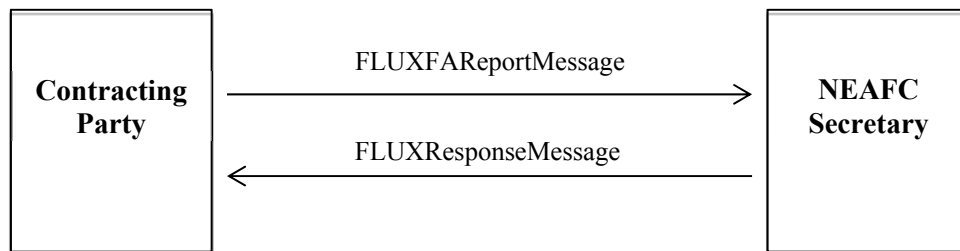


Figure 5 Diagram showing message transmission between CP and NEAFC

Where the NEAFC Secretary forwards fishing activity information it received to a Contracting Party, the roles in the diagram above are reversed.

The normal procedure for sending FLUX FA Report Messages between the Contracting Party and the NEAFC Secretary is described in **Error! Reference source not found.** This procedure respects the transmission procedure described in the FLUX General Principles document⁸ (chapter 6.3.1).

8 FLUX BRS: P1000 – 1; General principles. See chapter 4.

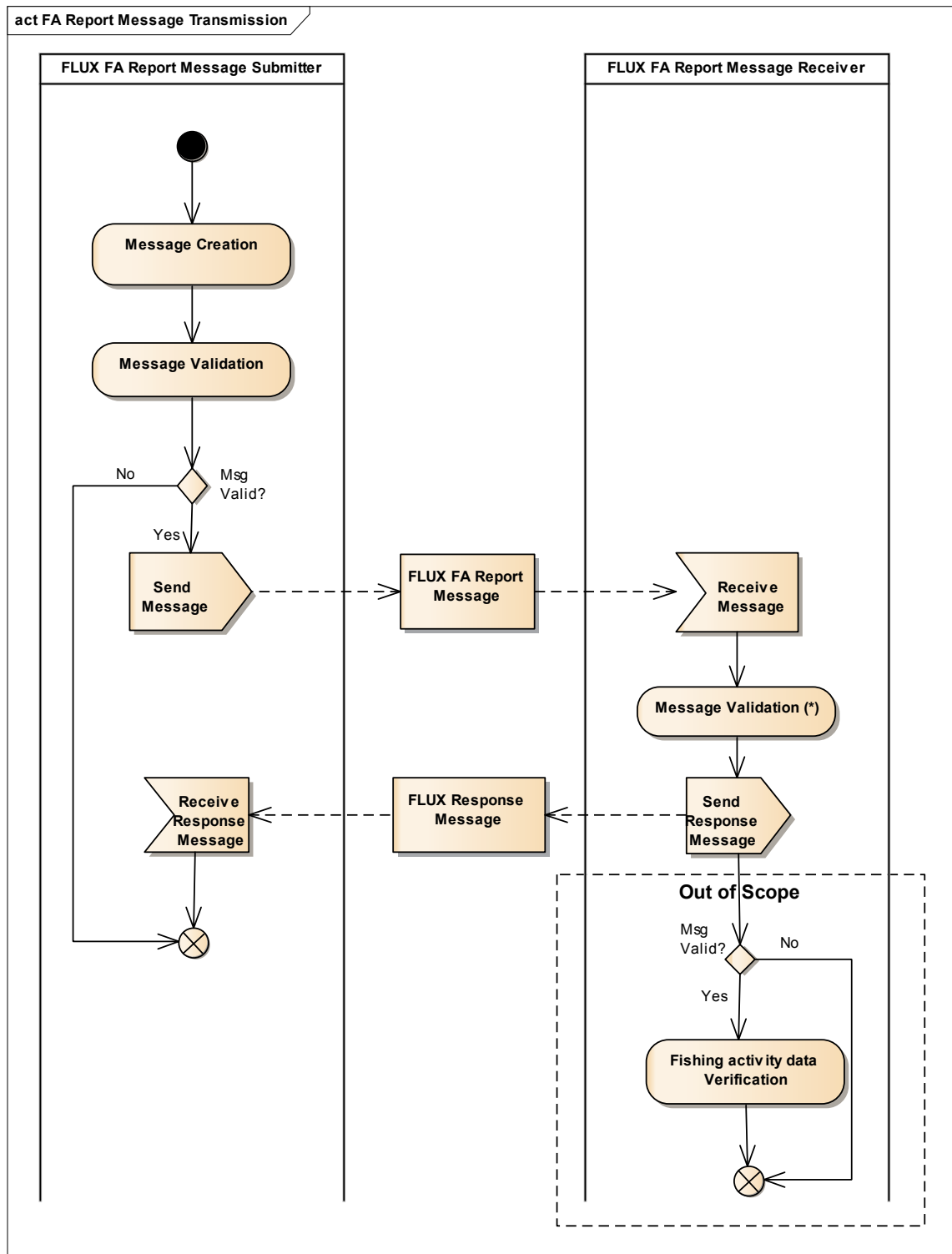


Figure 6 Message Transmission procedure

6.2.1. Business rules

FLUX FA Report Messages (messages) must be validated by the sender before transmitting and by the receiver when receiving.

There are 2 steps in the validation process (*) (**Error! Reference source not found.**):

- (1) XML Validation: An XML parser validates the structure of the XML provided⁹ against the XSD¹⁰ of the UN/CEFACT FLUX standard. This includes verification of the cardinalities of data elements as described in the Fishing Activities BRS document¹¹.
- (2) Business Rules Validation: A Business Rules Engine (BRE) validates the information contained in the XML message against the data model requirements described in the implementation for NEAFC (chapter 7) and business rules defined for this business domain (chapter 8).

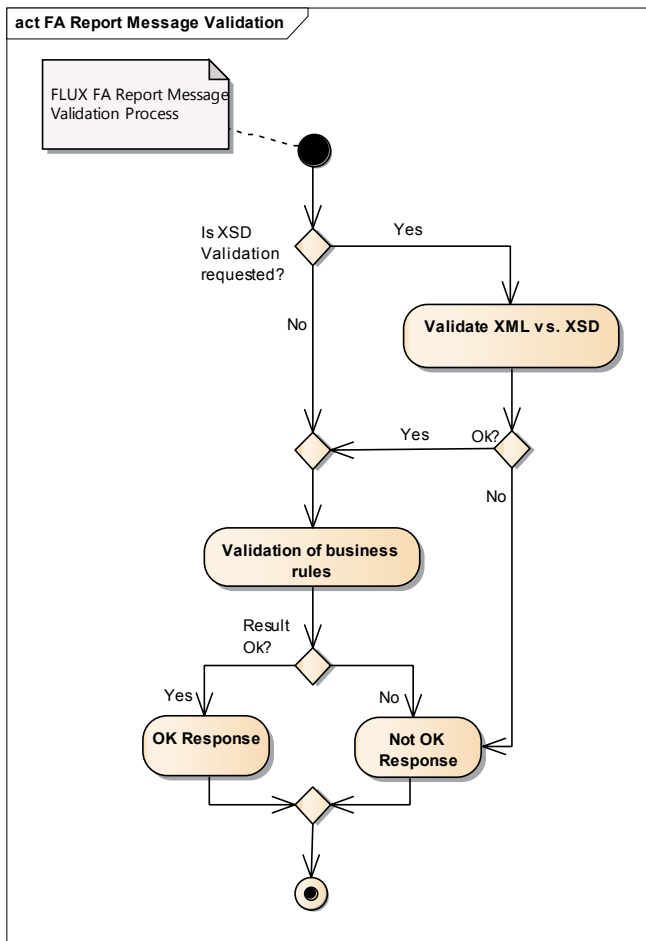


Figure 7 FLUX FA Report Message validation (detail of the process marked with * in Figure 6)

9 In general, only some data elements are defined as mandatory in the XSD. Attributes listID or schemeID remain optional unless otherwise specified.

10 The XSD considered for the validation process is specified in section "Fishing Activities UN/CEFACT XSD" in chapter 4.

11 FLUX BRS: P1000 – 3; Fishing Activity domain as referred to in chapter 4.

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The validation process must apply as many business rules as possible, not stopping at the first failure.

Once the validation step is completed and a response message is sent back, the message could be further processed or forwarded. Any further data verification may be performed on the data contained in the message. This is out of scope of this implementation document (see **Error! Reference source not found.**).

When the exchange in an automatic and immediate way is not possible or when exchanged messages cannot be understood by the receiver, the fall-back procedure must be engaged as described in chapter 6.5.

Fishing Activity Messages (FLUX FA Report Message) with an identifier previously received must be rejected by the receiver. For the purposes of this implementation, Fishing Activity Reports (FA Report Documents) with an identifier¹² previously received must be considered as identical¹³ and therefore it is not needed to perform the complete validation process again. A receiver may decide to perform the validation anyway.

6.2.2. Information on the errors or warnings in the Response message

The response message returned to the sender of the message will contain information on the acceptance or refusal of that message.

In case of errors or warnings, the list of the validation results will be returned, including the business rule numbers for which a rule was violated, an indication if this is an error or warning, and a reference to the entity on which the business rule failed. Details on how to implement this are provided in chapter 7.2.

Business rules that fail with an error must be considered as blocking issues that need to be corrected before the report can be (re-)transmitted by the sending party or accepted by the receiving party. One error causes the whole message to be rejected.

Business rules that fail with a warning are not to be considered blocking issues and hence messages generating only warnings cannot be rejected on that basis.

¹² FLUXReportDocument/ID related to the FAReportDocument entity.

¹³ NEAFC Scheme of Control and Enforcement, Annex IX D2c) defines duplicates in NEAFC context

6.3. Fishing Activity Messages

Validated Fishing Activity Messages (FLUX FA Report Message) shall be sent by the Contracting Party of the vessel to the NEAFC Secretary, according to the Scheme and the following principles (Detailed requirements are described in chapter 7.1):

6.3.1. Fishing activity information

- Fishing activity information (or fishing activities), as outlined in the Scheme, is recorded as Fishing Activity Reports (FA Report Document).
- Fishing Activity Reports are transmitted, individually or grouped together, within Fishing Activity Messages (FLUX FA Report Message).
- A Fishing Activity Report (FA Report Document) is uniquely identified and the identifier is assigned once at report creation time. Subsequent transmissions of the same fishing activity information must re-use the same report identifier.
- Fishing activity information on multiple fishing operations¹⁴ that occurred on the same day may be aggregated into one FA Report Document, either as one fishing operation with aggregated figures or with multiple fishing operations (hauls).
- There are two types of Fishing Activity Reports: Declaration and notification reports.
- Declarations and notifications may be corrected as many times as needed, in line with the provisions described in section 6.3.2. Notification reports may be cancelled only once, in line with the provisions described in section 6.3.3.
- FA Report Documents of the same vessel on the same fishing trip belong to the same electronic fishing logbook.

6.3.2. Corrections to fishing activity information

- Accepted declaration and notification reports may be corrected as outlined in the Scheme.
- A correction to fishing activity information is recorded in a FA Report Document and is also called "correction report". It has a unique identifier and a reference to the unique identifier of the FA Report Document being corrected.
- Correction reports replace the referenced FA Report Document completely and are considered as updates to the original fishing activity information.

¹⁴ Fishing operation as described in art. 12 of the Scheme

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- If information related to the catches (FACatch) in a notification report requires correction, a correction to the notification report must be sent. Corrected notifications remain notifications and do not change to declarations.
- Correction reports are part of the electronic fishing logbook.
- Correction reports must be transmitted without delay to the NEAFC Secretary if they relate to activities in the NEAFC Regulatory Area.

6.3.3. Cancellation of notification reports

- Accepted notification reports may be cancelled in case the activity being notified will no longer take place.
- If any information in the original notification report is incorrect, except when it is related to the catches on board or to be unloaded (FACatch), a cancellation report must be sent.
- A cancellation of a notification report is recorded in a FA Report Document. It has a unique identifier and a reference to the unique identifier of the FA Report Document being cancelled.
- Cancelled reports are no longer applicable. They remain part of the electronic fishing logbook however. In case the information contained in the cancelled report would need to be transmitted again, a new notification report must be sent. This new report will have no reference to any previous reports.
- Cancellations must be transmitted without delay to the NEAFC Secretary if they relate to activities intended to take place in the NEAFC Regulatory Area.

6.4. Response to Fishing Activity Messages

In response to a Fishing Activity Message (FLUX FA Report Message), exactly one (general principles) Response Message (FLUX Response Message) must be returned. It must be generated automatically and immediately, without human intervention. The recommended maximum delay for responding is 5 minutes.

The following general rules apply:

- The FLUX Response Message shall contain at least an acknowledgement of receipt and a reference to the unique identifier of the FLUX FA Report Message, provided the message is well-formed and valid XML according to the UN/CEFACT FLUX XSD¹⁵
- Specific business rules apply in case the FLUX FA Report Message is not valid or does not contain a valid unique identifier. These rules are specified in chapter 8.
- In case any of the business validation rules fail (see **Error! Reference source not found.** and chapter 8) with an error or warning, the complete validation results must be included in the response message (see chapter 7.2).
- The party receiving the validation results must take action to correct any issue and retransmit the correct information in a new report (in a new FLUX FA Report Message).
- A FLUX Response Message cannot be corrected nor cancelled.

6.5. Business continuity plan

A description of the business continuity plan, including fall back procedures, for the exchange of Fishing Activity information as outlined in the Scheme is available within the NEAFC Information Security Management System (ISMS) on the NEAFC web site <https://www.neafc.org/isms/article14-2>

¹⁵ A reference to the XSD considered for the validation process is specified in section "Fishing Activities UN/CEFACT XSD" in chapter 4.

7. DATA MODEL IMPLEMENTATION

7.1. FLUX FA Report Message

The FLUX FA Report Message is used to send fishing activity information recorded and transmitted by the master of a vessel carrying the flag of the Contracting Party to the NEAFC Secretary.

The structure of this message follows the data model of the FLUX Fishing Activities domain. **Error! Reference source not found.** shows the class diagram of this data model, adapted to NEAFC requirements. The different entities and their relationships are represented graphically.

The implementation of this data model follows the following general constraints at the level of XSD Element attributes:

- (1) For Code & Identifier DataType: *listID* or *schemeID* attribute must be provided respectively wherever specified in the definition of the element;
- (2) For DateTime DataType: only *udt:DateTime* (of type *xsd:dateTime*) choice is used. The date and time must be in line with ISO8601 and expressed in UTC, unless explicitly mentioned otherwise. The format shall be YYYY-MM-DDThh:mm:ss[.000000]Z¹⁶;
- (3) Measure DataType: the *unitCode* attribute shall be provided.

In the sections below the entities and attributes defined in the data model are described in greater detail including whether or not they are mandatory as well as the conditions that may apply. The entity and attribute names are those described in the Business Requirements Specification document¹⁷.

¹⁶ YYYY= year; MM= month, including leading 0 where month number is less than 10; DD= day of the month including leading 0 where day number is less than 10; T= the letter T to indicate the part of the time section; H24= hours of the day expressed with 2 digits using the 24-hour notation; Ml=minutes expressed as 2 digits; SS=seconds expressed as 2 digits; [.000000]= optionally fractions of seconds may be included up to 6 digits, not including the brackets; Z= time zone, which must be Z (i.e. UTC)

¹⁷ The BRS is the description of the UN/CEFACT FLUX standard. See section 4.

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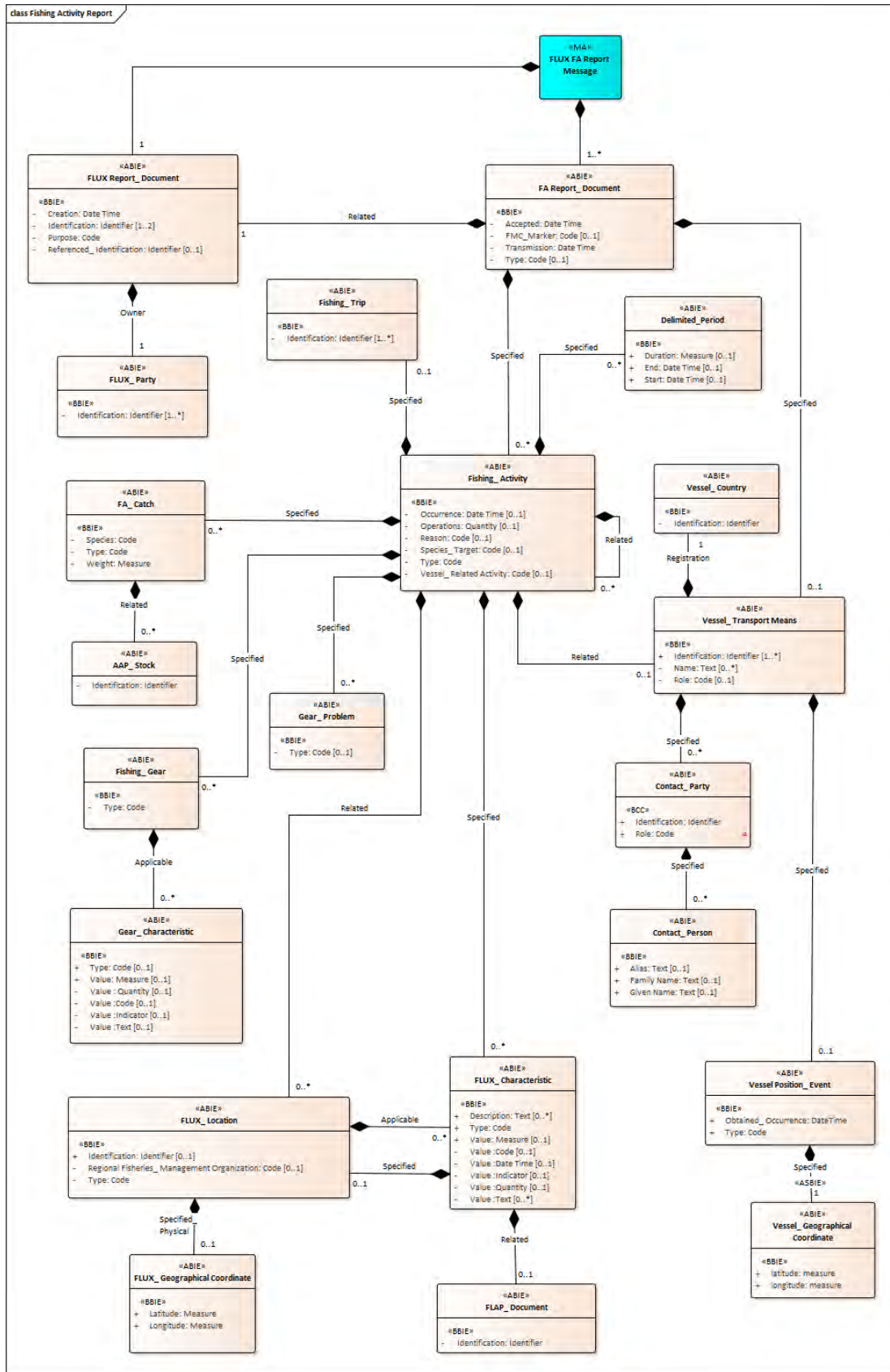


Figure 8 Class Diagram for FLUX FA Report Message.

7.1.1. FLUX FA Report Message

Description: A message containing fishing activity information. There can be one or more reports in a message. A definition and schematic view is provided in section 5.2.

Table 1: Data elements and attributes of FLUXFAReportMessage

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
FLUXReport_Document	Assoc. ¹⁸	1	1	The document details for this FLUX FA Report Message.	See data elements and attributes in Table 2.
FAReport_Document	Assoc.	1	*	The FAReportDocument contained in this FLUX FA Report Message.	The logbook line containing fishing activity information. See data elements and attributes in Table 4.

Table 2: Data elements and attributes of FLUXReportDocument related to a FLUXFAReportMessage

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	The Global Unique Identifier of the FLUX FA Report Message	<i>schemeID=UUID</i> ¹⁹ as defined in the RFC 4122. Once the message is created, the data contained in the message remains associated with this identifier. Within the context of this implementation document the UUID is treated case insensitive.
Purpose	Code	1	1	The code specifying the purpose of this FLUX FA Report Message.	<i>listID= FLUX_GP_PURPOSE</i> Always use ⁹ 20. There are no corrections or deletions possible for this FLUXFAReportMessage.
Creation	DateTime	1	1	The UTC date and time, of the creation of this FLUX FA Report Message.	Must be according to the definition provided in 7.1(2).
OwnerFLUX Party	Assoc.	1	1	The party owning this FLUX FA Report Message.	The party creating/transmitting the FLUX FA Report Message. See data elements and attributes in Table 3.

¹⁸ Association between 2 entities.

¹⁹ Example: FE52A3BA-6C5A-4C87-BE15-CC19A3023DB1 (see also <http://www.guidgenerator.com> for more examples)

²⁰ Reference: Edifact (qDT UN02000125 - Message Function_Code).

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Table 3: Data elements and attributes of FLUXParty related to a FLUXFAReportMessage

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	The identifier of the FLUX party, creating and transmitting the message.	<i>schemeID</i> = FLUX_GP_PARTY ISO-3 letter code of the party creating and transmitting the FLUXFAReportMessage.

7.1.2. FA Report Document

Description: A report containing fishing activity information. A definition and schematic view is provided in section 5.2

Table 4: Common data elements and attributes for all FAReportDocuments

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	0	1	Type of FAReportDocument	"Notification" is a report of a future activity; "Declaration" is a report of a past activity. <i>ListID=FLUX_FA_REPORT_TYPE</i> Use value=NOTIFICATION in case the FAReportDocument is a notification of an activity that will take place in the (near) future. Use DECLARATION in case the FAReportDocument is a declaration of an activity that currently takes place or has taken place in the past Optional in case of a deletion report.
Acceptance ²¹	DateTime	1	1	The UTC date and time of acceptance of the information by the FMC.	Must be according to the definition provided in 7.1(2).
Transmission	DateTime	<u>1</u>	<u>1</u>	The UTC date and time of transmission by the vessel as recorded by the on-board systems.	Must be according to the definition provided in 7.1(2).
FMC_Marker	Code	0	1	Marking set by the FMC to indicate intervention by the FMC in the creation or modification of the report	listID=FLUX_FA_FMC Mandatory in case the report has been delayed, corrected/cancelled or generated manually by the FMC.
RelatedFLUX Report_Document	Assoc.	1	1	The document details for this FA Report Document (the report)	Common entity containing details about report (such as the identifier). See data elements and attributes in Table 5 .
Specified Fishing_Activity	Assoc.	0	*	Actual information about the fishing activity/ies reported in this FA Report Document	Typically a FA Report Document contains only one Fishing Activity entity, however - for haul-by-haul recording transmitted daily, there may be multiple instances of the "Fishing Activity" entity with TypeCode "FISHING_OPERATION". - if the FA Report Document is a cancellation (PurposeCode=1), there is no "Fishing Activity" entity included in the report.

²¹ Note that date and time of transmission by the vessel as recorded by the on-board system cannot be provided as a separate data element in this version of the UN/FLUX standard and corresponding XSD used for this Implementation Document. The issue will be addressed by updating the UN/FLUX standard and will be included in an Implementation Document corresponding to that version of the standard.

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Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
					<p><u>Note:</u> Corrections to reports replace the whole report, including all "Fishing Activity" entities included in it (see section 6.3.2)..</p> <p>See data elements and attributes in sections 7.1.3 to 7.1.9.</p>
Specified Vessel_Transport Means	Assoc.	0	1	Information about the reporting vessel	<p>Relevant information about the fishing vessel reporting this activity.</p> <p>Optional in case of a cancellation report.</p> <p>See data elements and attributes in Table 17.</p>

Table 5: Data elements and attributes of a FLUXReportDocument related to a FAREportDocument

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	2	Unique identification of the fishing activity report.	At least one occurrence of ID with <i>schemeID</i> =UUID as defined in the RFC 4122 must be provided. Once the message is created, the data contained in the message remains associated with this identifier. Within the context of this implementation document the UUID is treated case insensitive. Optionally a second occurrence with <i>schemeID</i> =NEAFC_SQ A sequence number, unique per vessel within the calendar year, starting at 1. Format: NNNNNN
Purpose	Code	1	1	The code specifying the purpose of this FLUX Fishing Activity Report.	Creation, correction or cancellation of a report as described in chapter 6.3. <i>listID</i> = FLUX_GP_PURPOSE ²² Use 9 to send original data for the first time. Use 5 in case this report is an update or a correction of a previously (accepted) report. Use 1 in case the activity notification reported in the referenced report is to be cancelled.
Creation	DateTime	1	1	The UTC date and time of the creation of this FLUX FA Report document.	Date and time of creation of the report by the FMC. Must be according to the definition provided in 7.1(2).
Referenced_ Identification	Identifier	0	1	The identifier of a referenced FLUX Fishing Activity Report	<i>schemeID</i> =UUID as defined in the RFC 4122. A UUID number, for which an update or cancelation is being sent. Mandatory if the FAREportDocument is a correction or cancellation of an accepted report.
OwnerFLUX_ Party	Assoc.	1	1	The party owning this FA Report Document (report).	Reference to the party creating the report. See data elements and attributes in Table 6.

²² Reference: Edifact (qDT UN02000125 - Message Function_Code).

Table 6: Data elements and attributes of FLUXParty related to a FLUXFAReportDocument

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	The identifier of the FLUX party, creating the report.	<i>schemeID</i> = FLUX_GP_PARTY ISO-3 code of the Flag State FMC.

7.1.3. Prior Notification of Entry

The table below shows the data elements and attributes that must be provided for a Prior Notification of Entry report as outlined in article 12 of the Scheme.

The descriptions of the common data elements and attributes for all FAReport_Documents apply (Table 4). The TypeCode of the FAReport_Document must have the value "NOTIFICATION".

Table 7: Data elements and attributes of a Fishing Activity of type Entry into area

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	A code describing the type of Fishing_Activity	<i>listID</i> =FLUX_FA_TYPE <i>value</i> = AREA_ENTRY
SpecifiedFishing_Trip	Assoc.	0	1	The reference to the trip in which this activity took place.	Optional. See data elements and attributes in Table 25.
RelatedFLUX_Location	Assoc.	1	*	The area being entered.	At least one occurrence of Type=AREA to indicate that the NEAFC Regulatory Area (NEAFC_RA) is being entered. See data elements and attributes in Table 26. <i>Remark: The position at time of transmission from the vessel is provided as part of the VesselTransportMeans entity (Table 19) and should not be reported here.</i>
SpecifiedFA_Catch	Assoc.	1	*	The catch on board the vessel at the time of transmission	Quantity on board by species at the time of transmission, expressed in kg live weight. Use type=ONBOARD for catches kept on board. See data elements and attributes in Table 22
Reason	Code	1	1	Planned activity	<i>listID</i> =FA_REASON_ENTRY
Species_Target	Code	0	1	The code specifying the directed species when in the area	<i>listID</i> =FAO_SPECIES FAO species code of the target species

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Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
					Mandatory where the planned activity is fishing (FIS)
RelatedFishing_Activity	Assoc.	0	1	Activity detail: Information related to the predicted start of activities within the area	See data elements and attributes in Table 8. Mandatory in case the planned activity is fishing (FIS) or transshipment (TRX).

7.1.3.1. The use of a sub-activity in the context of an Prior Notification of Entry

A sub-activity is used in order to report activity details related to the start of the operations within the area being entered.

There cannot be more than one level of sub-activity.

Table 8: Data elements and attributes of the sub-activity START_ACTIVITY

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	A code describing the type of Fishing sub-Activity	<i>listID</i> =FLUX_FA_TYPE Use value=START_ACTIVITY.
Occurrence	DateTime	1	1	The estimated UTC date and time of the start of the planned activity	Must be according to the definition provided in 7.1(2).
RelatedFLUX_Location	Assoc.	1	*	A FLUX_Location related to this fishing sub-activity	Use at least one FLUX_Location of type=POSITION to specify the estimated position where the planned activity will take place. Optionally, use a FLUX_Location of type=AREA to describe the Management Area where the master intends to commence fishing. See data elements and attributes in Table 26.

7.1.4. Fishing Operation declaration

The table below shows the data elements and attributes that must be provided for a fishing operation report as outlined in article 12 of the Scheme.

The descriptions of the common data elements and attributes for all FAREport_Documents apply (Table 4). The TypeCode of the FAREport_Document must have the value "DECLARATION".

Table 9: Data elements and attributes of a Fishing Activity of type Fishing Operation

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	A code describing the type of Fishing_Activity	<i>listID</i> =FLUX_FA_TYPE value=FISHING_OPERATION
Occurrence	DateTime	0	1	UTC (start) date and time when catches were taken or for which a NIL catch is reported.	Mandatory when reporting daily aggregated catches (this means no RelatedFishingActivity entities are present). The time is optional and may be set to zero ²³ in such case. Must be according to the definition provided in 7.1(2).
Vessel_Related Activity	Code	1	1	The code specifying the main activity of the vessel in the reported period	<i>listID</i> =VESSEL_ACTIVITY
Operations	Quantity	0	1	The number of fishing operations aggregated in the report.	Mandatory in case of daily aggregated reporting
SpecifiedFishing_Trip	Assoc.	0	1	The reference to the trip in which this activity took place.	Optional. See data elements and attributes in Table 25.
SpecifiedFA_Catch	Assoc.	0	*	The catch caught and kept on board the vessel and the discards where applicable	Mandatory where a fishing operation has taken place. In case catches were taken the figures are expressed in kg live weight. Use type=ONBOARD for catches kept on board. See data elements and attributes in Table 22.
RelatedFLUX_Location	Assoc.	0	*	The location where the activity took place (where most of the catch was taken)	Use type=AREA to report catches per relevant geographical area(s) (up to ICES division) and ICES statistical rectangle. Management area where the catches were taken. Mandatory for fisheries where management measures require it.

²³ The data element used to report this information in the UN/FLUX schema, *udt:DateTime* (xsd:dateTime type), requires the time component to be included.

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Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
					See data elements and attributes in Table 26.
Specified Delimited_Period	Assoc.	0	1	Duration of the fishing operation(s) in minutes	Mandatory where a fishing operation has taken place. Use <i>unitCode=MIN</i> (minutes). See data elements and attributes in Table 32.
SpecifiedFishing_Gear	Assoc.	0	1	Fishing gear details for this fishing activity.	Mandatory where a fishing operation has taken place Reporting in line with art. 12.3 of the Scheme. See data elements and attributes in Table 29.
SpecifiedGear_Problem	Assoc.	0	*	A gear problem specified for this fishing activity.	Mandatory in case a gear problem occurred. See data elements and attributes in Table 31.
Related Vessel_Transport Means	Assoc.	0	*	The (other) vessel(s) involved in this fishing operation	Mandatory when pumping from another vessel's gear or when performing pair fishing. Mandatory to report both the roles of the related and reporting vessels if a related vessel is reported. For pair fishing use <i>RoleCode=PAIR_FISHING_PARTNER</i> . For pumping operation use <i>RoleCode DONOR</i> See data elements and attributes in Table 17.
RelatedFishing_Activity	Assoc.	0	*	Details about the haul.	Mandatory when reporting catches haul by haul. One related activity for gear shot and one for gear retrieval. See data elements and attributes in Table 10.

7.1.4.1. The use of a sub-activity of a fishing operation

Sub-activities "gear shot" and "gear retrieval" are used when reporting catches haul by haul. There cannot be more than one level of sub-activities; i.e. RelatedFishingActivity entity cannot have a RelatedFishingActivity entity attached to it.

Table 10: Data elements and attributes of a sub-activity of a fishing operation

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	A code describing the type of Fishing sub-Activity	<i>listID</i> =FLUX_FA_TYPE Use value=GEAR_SHOT or GEAR_RETRIEVAL for gear shot and gear retrieved.
Occurrence	DateTime	1	1	UTC date and time of the start (in case of GEAR_SHOT) or end (in case of GEAR_RETRIEVAL) of the operation	Must be according to the definition provided in 7.1(2).
RelatedFLUX_Location	Assoc.	1	*	The start (GEAR_SHOT) or end (GEAR_RETRIEVAL) position of the fishing operation.	Use Type=POSITION to describe the location where the sub-activity takes place. In case of GEAR_SHOT also specify a FLUX_Location of type=AREA to report the management area where the catch was taken. This is mandatory where specific management measures require it. See data elements and attributes in Table 26.
SpecifiedFLUX_Characteristic	Assoc.	0	*	A characteristic specified for this fishing activity.	Mandatory where specific management measures require it. <i>listID</i> =FA_CHARACTERISTIC Use value FISHING_DEPTH to specify the depth when gear is fully shot (in case of GEAR_SHOT) and before start hauling (in case of GEAR_RETRIEVAL). Use value BOTTOM_DEPTH to specify the depth between surface and sea bed at start position (in case of GEAR_SHOT) and end position (in case of GEAR_RETRIEVAL). See data elements and attributes in Table 28.

7.1.4.2. The use of Gear_Characteristics to be specified when deploying gear

The gear characteristics to be provided when deploying each gear type are described in Annex (section 14.1).

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7.1.5. Discard declaration

The table below shows the data elements and attributes that must be provided for a discard report.

The descriptions of the common data elements and attributes for all FAReport_Documents apply (Table 4). The TypeCode of the FAReport_Document must have the value "DECLARATION".

Table 11: Data elements and attributes of a Fishing Activity of type Discard

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	A code describing the type of Fishing_Activity	<i>listID</i> =FLUX_FA_TYPE value=DISCARD
Occurrence	DateTime	1	1	Start date and time of the operation in UTC	Must be according to the definition provided in 7.1(2). When reporting daily aggregated discards, the date is sufficient. In that case the time part may be set to zero.
Reason	Code	1	1	Reason for discard	<i>listID</i> =FA_REASON_DISCARD
SpecifiedFishing_Trip	Assoc.	0	1	The reference to the trip in which this activity took place.	Optional See data elements and attributes in Table 25.
SpecifiedFA_Catch	Assoc.	1	*	The catches discarded during this operation	Use Type=DISCARDED to record discards of catches Specify the live weight in kg. See data elements and attributes in Table 22
RelatedFLUX_Location	Assoc.	1	*	A FLUX_Location related to this fishing activity	See data elements and attributes in Table 26.
SpecifiedFLUX_Characteristic	Assoc.	0	1	A textual description of the reason for discard	Optional. Can be used in case the reason for discard is "OTH" (other) See data elements and attributes in Table 12.

Table 12: Data elements and attributes of FLUX_Characteristic when used in a discard activity

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	The type of FLUX characteristic	<i>ListID</i> =FA_CHARACTERISTIC Use value=REMARK
Value	Text	1	1	A textual description of the reason for discard	

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7.1.6. Report of transshipment (by donor)

The table below shows the data elements and attributes that must be provided for a transshipment notification report (by donor) as outlined in article 13 of the Scheme.

The descriptions of the common data elements and attributes for all FAREport_Documents apply (Table 4). The TypeCode of the FAREport_Document must have the value "NOTIFICATION". In this case the reporting vessel (FAReport_Document/SpecifiedVessel_TransportMeans) has the role "DONOR".

Table 13: Data elements and attributes of a prior notification of transshipment (unloading)

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	A code describing the type of FishingActivity	<i>listID</i> =FLUX_FA_TYPE Use value=TRANSHIPMENT
Occurrence	DateTime	1	1	Estimated start date and time of the operation	Must be according to the definition provided in 7.1(2).
SpecifiedFishing_Trip	Assoc.	0	1	The reference to the trip in which this activity took place.	See data elements and attributes in Table 25.
RelatedFLUX_Location	Assoc.	1	*	The predicted position where the operation will take place	Specify Type=POSITION to specify the position of the transshipment. See data elements and attributes in Table 26.
SpecifiedFA_Catch	Assoc.	1	*	The catches intended to be unloaded during this operation or catches prior to unloading.	Use type=ONBOARD for catches on board prior to the transshipment. Use type=UNLOADED in case of unloading. Specify live weights in kg. See data elements and attributes in Table 22.
Related Vessel_Transport Means	Assoc.	1	1	Relevant information about the receiving vessel involved in this unloading operation.	Use role=RECEIVER See data elements and attributes in Table 17.

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7.1.7. Report of transhipment (by receiver)

The table below shows the data elements and attributes that must be provided for a transhipment declaration report (by receiver) as outlined in article 13 of the Scheme.

The descriptions of the common data elements and attributes for all FAREport_Documents apply (Table 4). The TypeCode of the FAREport_Document must have the value "DECLARATION". In this case the reporting vessel (FAReport_Document/SpecifiedVessel_TransportMeans) has the role "RECEIVER".

Table 14: Data elements and attributes of a Fishing Activity of type Transhipment (loading)

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	A code describing the type of FishingActivity	<i>listID</i> =FLUX_FA_TYPE Use Value=TRANSHIPMENT
Specified Delimited_Period	Assoc.	1	1	The end date and time of the transhipment	At least the end date/time is mandatory. The end date/time is the date and time of completion of the transhipment. See data elements and attributes in Table 32.
SpecifiedFishing_Trip	Assoc.	0	1	The reference to the trip in which this activity took place.	Optional. See data elements and attributes in Table 25.
RelatedFLUX_Location	Assoc.	1	*	A FLUXLocation related to this fishing activity	Type=POSITION to specify the exact position of the transhipment. See data elements and attributes in Table 26.
SpecifiedFA_Catch	Assoc.	1	*	The catches transhipped during this operation or on board after the transhipment	Use Type=LOADED in case of loading of catches. Use Type=ONBOARD to indicate the total catch on board after completion of the operation. Specify live weights (kg). See data elements and attributes in Table 22.
RelatedVessel_TransportMeans	Assoc.	1	1	The other vessel involved in this transhipment	Use role DONOR. See data elements and attributes in Table 17.

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7.1.8. Prior Notification of Exit

The table below shows the data elements and attributes that must be provided for a Prior Notification of Exit report as outlined in article 12 of the Scheme.

The descriptions of the common data elements and attributes for all FAReport_Documents apply (Table 4). The TypeCode of the FAReport_Document must have the value "NOTIFICATION" in this case.

Table 15: Data elements and attributes of a Fishing Activity of type Exit from area

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	A code describing the type of Fishing_Activity	<i>listID=FLUX_FA_TYPE</i> value= AREA_EXIT
Occurrence	DateTime	0	1	Date and time of exit	Must be according to the definition provided in 7.1(2).
SpecifiedFishing_Trip	Assoc.	0	1	The reference to the trip in which this activity took place.	See data elements and attributes in Table 25.
RelatedFLUX_Location	Assoc.	1	*	The area being exited.	At least one occurrence of Type=AREA to indicate that the NEAFC Regulatory Area is being exited. Optionally one occurrence of Type=POSITION to report the estimated position at time of exit. See data elements and attributes in Table 26.
SpecifiedFA_Catch	Assoc.	1	*	The catch on board the vessel at the time of exit	Mandatory. Weights expressed in kg live weight. Use type=ONBOARD for catches kept on board. If no catch is on board, nil catches should be reported. See data elements and attributes in Table 22.

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7.1.9. Port of landing report

The table below shows the data elements and attributes that must be provided for a Port of Landing report as outlined in article 13 of the Scheme.

The descriptions of the common data elements and attributes for all FAREport_Documents apply (Table 4). The TypeCode of the FAREport_Document must have the value "NOTIFICATION".

Table 16: Data elements and attributes of a Fishing Activity of type Notification of Arrival

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	A code describing the type of FishingActivity	<i>listID</i> =FLUX_FA_TYPE value=ARRIVAL
Occurrence	DateTime	1	1	Estimated date and time of arrival.	Must be according to the definition provided in 7.1(2).
Reason	Code	1	1	The code specifying the reason for the arrival/returning to port	<i>listID</i> = FA_REASON_ARRIVAL value=LAN
SpecifiedFishing_Trip	Assoc.	0	1	The reference to the trip in which this activity took place.	Optional See data elements and attributes in Table 25.
RelatedFLUX_Location	Assoc.	1	*	The port of landing.	The (intended) port of arrival Use Type=LOCATION when the vessel intends to arrive in a port or other location available on the location list in MDR. Where available the landing site shall be provided as well. See data elements and attributes in Table 26.
SpecifiedFA_Catch	Assoc.	1	*	The catch on board the vessel at the time of notification	Mandatory. Use Type= "ONBOARD" for the catches on board at the time of notification. Use Type= "UNLOADED" for the catches to be unloaded. See data elements and attributes in Table 22.

7.1.10. Common entities

7.1.10.1. *Vessel_TransportMeans* entity

Description: Entity used to provide information on a vessel.

Table 17: Data elements and attributes of Vessel_Transport_Means (Vessel domain)

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Role	Code	0	1	The role of the vessel in the operation	Mandatory for both reporting and related vessel in case the report contains an activity with a RelatedVesselTransportMeans. <i>ListID=FA_VESSEL_ROLE</i> Use value PAIR_FISHING_PARTNER if the vessel is a pair fishing partner in the fishing operation. Use value DONOR to indicate the donor vessel in a loading operation or a notification of loading. Use value RECEIVER to indicate the receiving vessel in an unloading operation or notification of unloading
Identifier	Identifier	1	*	An identifier for this vessel	For the reporting vessel: At least 2 vessel IDs of which one is <i>schemeID=IRCS</i> & Value= IRCS number must be provided. The other shall be <i>schemeID=UVI</i> where IMO is applicable to the vessel ²⁴ ; alternatively the contracting party reference number (REG_NBR) as flag state 3-alpha country code followed by alphanumeric characters. For the other vessel involved in the operation <i>schemeID=IRCS</i> . Optionally other values including their <i>schemeID</i> , insofar the <i>schemeID</i> is present in the MDR list FLUX_VESSEL_ID_TYPE. E.g. EXT_MARK
Name	Text	0	1	A name, expressed as text, of the vessel	Optional
Registration Vessel_Country	Assoc.	1	1	Identification of the flag state	See data elements and attributes in Table 18.
Specified Contact_Party	Assoc.	0	1	Reference to information related to the master of the vessel	Mandatory for the reporting vessel. See data elements and attributes in Table 20.

²⁴ Annex IV(a) of the Scheme: Radio Call sign and IMO number is required, where IMO is not applicable (for Vessels under IMO resolution A.1078 (28)), use of either CP Internal reference number or Vessel external registration is required.

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Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
SpecifiedVessel_PositionEvent	Assoc.	0	1	The position of the vessel at time of transmission.	Mandatory when used in relation to FishingActivity/TypeCode= AREA_ENTRY. See data elements and attributes in Table 19.

7.1.10.2. Vessel_Country entity

Description: Entity used to provide information on the registration location of the vessel (flag state).

Table 18: Data elements and attributes of Vessel_Country (Vessel domain)

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identifier	Identifier	1	1	An identifier for the flag state	ISO-3 code of the Flag State. <i>schemeID= TERRITORY</i>

7.1.10.3. Vessel_PositionEvent entity

Description: Entity used to provide information on the location of the vessel at time of transmission of activity reports.

Table 19: Data elements and attributes of Vessel_PositionEvent (Vessel domain)

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Obtained Occurrence	DateTime	1	1	Date and time when the specified position was obtained.	Date and time of transmission from the vessel (needed for control and enforcement for reports with explicit timelines) Must be according to the definition provided in 7.1(2).
Type	Code	1	1	The type of position	ListID = FLUX_VESSEL_POSITION_TYPE Use value POS only.
SpecifiedVessel_Geographical Coordinate	Assoc.	1	1	Geographical coordinate information of the position event	Same definition as FLUXGeographicalPosition. See Table 27.

7.1.10.4. *Contact_Party entity*

Description: An individual, a group, or a body having a role as a contact

Table 20: Data elements and attributes of Contact_Party (Vessel domain)

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Role	Code	1	1	A code specifying the role of this contact party	<i>listID</i> = FLUX_CONTACT_ROLE Value must be MASTER
Specified Contact_Person	Assoc.	1	1	A specified person for this contact party.	Name of the master of the vessel See data elements and attributes in Table 21.

7.1.10.5. *Contact_Person entity*

Description: The details of a contact person.

Both the GivenName and FamilyName must be provided or an Alias.

Table 21: Data elements and attributes of Contact_Person (Vessel domain)

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
GivenName	Text	0	1	Given name of the master	Required when specifying FamilyName and if Alias is not specified.
FamilyName	Text	0	1	Family name of the master	Required when specifying GivenName and if Alias is not specified.
Alias	Text	0	1	An alias to identify the master	If GivenName and FamilyName are not provided.

7.1.10.6. *FA_Catch entity*

Description: Fishing Activity (FA) information about the species and quantity.

Table 22: Data elements and attributes of FACatch entity

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	The code specifying a type of catch, such as retained on board.	<i>listID=FA_CATCH_TYPE</i>
Species	Code	1	1	The FAO species code.	<i>listID=FAO_SPECIES</i> For nil catches the species code "MZZ" may be used or target species.
Weight	Measure	1	1	The <u>live</u> weight (kg) of the reported catch.	<i>unitCode=KGM</i> 0 for nil catches
SpecifiedSize_Distribution	Assoc.	0	1	The size distribution specified for the catch.	Optional. Not applicable when used in relocations used as sub-activity. See data elements and attributes in Table 23.
RelatedAAP_Stock	Assoc.	0	1	The stock specification.	Mandatory if the catches caught belong to a stock listed in NEAFC Recommendation 02:2011 (as amended) ²⁵ . See data elements and attributes in Table 24.

7.1.10.7. *Size_Distribution entity*

Description: The size distribution specified for the FA_catch.

Table 23: Data elements and attributes of Size_Distribution

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Class	Code	1	1	The code specifying the size class	<i>ListID= FISH_SIZE_CLASS</i> Use value "LSC" for legally sized fish. Use value "BMS" for fish below minimum conservation reference size.

²⁵ Annex IV(a) of the Scheme.

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7.1.10.8. AAP_Stock

Table 24: Data elements and attributes of AAPStock entity

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	Identification of the stock.	<i>SchemeID</i> = FA_NEAFC_STOCK ²⁶

7.1.10.9. Fishing_Trip

Description: The fishing trip to which the fishing activity belongs.

Table 25: Data elements and attributes of the FishingTrip entity

Entity/Field Name	DataType	Cardinality		Description	Remarks
Identification	Identifier	1	*	The unique identifier of the fishing trip	The <i>schemeID</i> of the identifier must always be provided. The value must be on the code list FA_TRIP_ID_TYPE. At most one occurrence of ID for a given <i>schemeID</i> . E.g. <i>schemeID</i> =NEAFC_TN

7.1.10.10. FLUX_Location entity

Description: Entity providing information of a physical location or place where the activity takes place or where catches are taken.

Table 26: Data elements and attributes of FLUXLocation

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	The code specifying the type of FLUX location.	<i>ListID</i> =FLUX_LOCATION_TYPE Use POSITION to report activities or catches at a certain geographical location. Use AREA to report catches per relevant geographical area or to indicate the relevant area for the activity. Use LOCATION if the location of the activity is a port or other location defined on the LOCATION list in MDR

²⁶ Annex III of Recommendation 2–2011 as amended by recommendations 14–2013 17–2015 and 13–2016.

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Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	0	1	The identifier for this FLUX location.	<p>Mandatory if TypeCode=AREA: <i>schemeID</i>=FAO_AREA up to the ICES division. <i>schemeID</i>=STAT_RECTANGLE where available <i>schemeID</i>=TERRITORY for EEZ <i>schemeID</i>=MANAGEMENT_AREA for locations taking place in areas e.g. managed by RFMOs</p> <p>Mandatory if TypeCode=LOCATION: For ports and other defined locations use: <i>schemeID</i>=LOCATION</p> <p>If the location is not in the MDR code list, use the closest relevant MDR location. In such case it is recommended to use in addition a FLUXLocation of Type=POSITION to specify the exact position.</p>
RegionalFisheries Management Organisation	Code	0	1	The code specifying the organization managing fisheries of this FLUX location.	<i>listID</i> =RFMO
SpecifiedFLUX_Geographical Coordinate	Assoc.	0	1	Geographical coordinates information.	Mandatory if TypeCode=POSITION See Table 27.
ApplicableFLUX_Characteristic	Assoc.	0	1	Landing site	<p>Name of the buyer or other specifications describing exactly where in the port the landing will take place.</p> <p>Mandatory if available for a notification of arrival with the intention to land catches caught in the NEAFC RA.</p> <p>Use TypeCode=LANDING_SITE (value from code list FA_LOCATION_CHARACTERISTIC)</p>

7.1.10.11. *FLUX_GeographicalCoordinate* entity

Description: Entity providing information of the latitude and longitude of a specified place, by which a location's relative situation on the globe is known.

Table 27: Data elements and attributes of FLUXGeographicalCoordinate

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Longitude	Measure	1	1	The measure of the longitude as an angular distance east or west from the Greenwich meridian to the meridian of a specific place for this FLUX location geographical coordinate	Coordinate expressed in WGS84, decimal degree notation, using a precision of at least 3 decimal positions. Positive coordinate refers to East of Greenwich meridian. Negative coordinate refers to West.
Latitude	Measure	1	1	The measure of the latitude as an angular distance east or west from the Greenwich meridian to the meridian of a specific place for this FLUX location geographical coordinate.	Coordinate expressed in WGS84, decimal degree notation, using a precision of at least 3 decimal positions. Positive coordinate refers to North of equator. Negative coordinate refers to South.

7.1.10.12. *FLUX_Characteristic entity*

Description: Entity used to provide information of a prominent attribute or aspect of another FLUX entity.

Table 28: Data elements and attributes of FLUX_CHARACTERISTIC

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	The code specifying the characteristic	When used in data element FLUX_Location <i>listID</i> =FLUX_LOCATION_CHARACTERISTIC When used in data element Fishing Activity <i>listID</i> = FA_CHARACTERISTIC
Value	Measure	0	1	The measure of the value for this FLUX characteristic.	If UN_DATA_TYPE ²⁷ for the characteristic (specified in FLUXCharacteristic/TypeCode) is MEASURE or NUMBER. Attribute <i>unitCode</i> must be set. The unitCode should be defined in the list FLUX_UNIT.
Value	DateTime	0	1	The value, expressed as a date, time, date time, or other date time value, of this FLUX characteristic.	If UN_DATA_TYPE ²⁷ for the characteristic (specified in FLUXCharacteristic/TypeCode) is DATETIME. Must be according to the definition provided in 7.1(2).
Value	Indicator	0	1	The value, expressed as an indicator, for this FLUX characteristic.	If UN_DATA_TYPE ²⁷ for the characteristic (specified in FLUXCharacteristic/TypeCode) is BOOLEAN.
Value	Code	0	1	The code specifying a value of this FLUX characteristic.	If UN_DATA_TYPE ²⁷ for the characteristic (specified in FLUXCharacteristic/TypeCode) is CODE. Attribute <i>listID</i> must be set. Use value of an existing code list on MDR.
Value	Text	0	1	A value, expressed as text, of this FLUX characteristic.	If UN_DATA_TYPE ²⁷ for the characteristic (specified in FLUXCharacteristic/TypeCode) is TEXT.
Value	Quantity	0	1	The value, expressed as a quantity, for this FLUX characteristic.	If UN_DATA_TYPE ²⁷ for the characteristic (specified in FLUXCharacteristic/TypeCode) is QUANTITY.
RelatedFLAP_Document	Assoc.	0	1	The Fishing Licence, Authorization or Permit (FLAP) specified for this FLUX characteristic.	If UN_DATA_TYPE ²⁷ for the characteristic (specified in FLUXCharacteristic/TypeCode) is FLAP_DOCUMENT
SpecifiedFLUX_Location	Assoc.	0	1	A FLUX Location specified for this FLUX characteristic.	If UN_DATA_TYPE ²⁷ for the characteristic (specified in

²⁷ Reference to UN_DATA_TYPE field in the code list (on MDR) specified in the listID attribute of FLUXCharacteristic/TypeCode.

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Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
					FLUXCharacteristic/TypeCode) is FLUX_LOCATION

7.1.10.13. Fishing_Gear entity

Description: Entity used to provide information of a fishing gear.

Table 29: Data elements and attributes of Fishing_Gear

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	The code specifying the type of gear	<i>listID</i> = GEAR_TYPE The FAO gear codes.
ApplicableGear_Characteristic	Assoc.	0	*	Specific characteristics of the gear or gear deployment	The characteristics to be reported depending on the gear type as specified in Annex 14.1. See data elements and attributes in Table 30.

7.1.10.14. Gear_Characteristic entity

Description: Specific characteristics of the gear or gear deployment.

Table 30: Data elements and attributes of GearCharacteristic

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	The code specifying the gear characteristic	<i>listID</i> = FA_GEAR_CHARACTERISTIC
Value	Measure	0	1	The measure of the value for this GEAR characteristic.	If UN_DATA_TYPE ²⁸ for the characteristic (specified in GearCharacteristic/TypeCode) is of type MEASURE or NUMBER. Attribute <i>unitCode</i> must be set. Use the values specified in Annex 14.1, depending on the gear code. The unitCode is defined in the list FLUX_UNIT.
Value	Indicator	0	1	The value, expressed as an indicator, for this GEAR characteristic.	If UN_DATA_TYPE ²⁸ for the characteristic (specified in

²⁸ Reference to UN_DATA_TYPE field in the code list (on MDR) specified in the listID attribute of GearCharacteristic/TypeCode (i.e. FA_GEAR_CHARACTERISTIC).

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Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
					GearCharacteristic/TypeCode) is of type BOOLEAN.
Value	Code	0	1	The code specifying a value of this GEAR characteristic.	If UN_DATA_TYPE ²⁸ for the characteristic (specified in GearCharacteristic/TypeCode) is of type CODE. Attribute listID must be set. Use value of an existing code list on MDR.
Value	Text	0	1	A value, expressed as text, of this GEAR characteristic.	If UN_DATA_TYPE ²⁸ for the characteristic (specified in GearCharacteristic/TypeCode) is of type TEXT.
Value	Quantity	0	1	The value, expressed as a quantity, for this GEAR characteristic.	If UN_DATA_TYPE ²⁸ for the characteristic (specified in GearCharacteristic/TypeCode) is of type QUANTITY.

7.1.10.15. Gear_Problem entity

Description: Entity providing information on a problem with a fishing gear.

Table 31: Data elements and attributes of Gear_problem entity

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	The code specifying a type of gear problem.	ListID=FA_GEAR_PROBLEM

7.1.10.16. DelimitedPeriod entity

Description: A period of time delimited by a start and end date.

Table 32: Data elements and attributes of Delimited_Period entity

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Start	DateTime	0	1	UTC start date of the delimited period	Must be according to the definition provided in 7.1(2).
End	DateTime	0	1	UTC end date of the delimited period	Must be according to the definition provided in 7.1(2).
Duration	Measure	0	1	Total duration of the delimited period	The total duration of the delimited period, including the unitCode. Attribute unitCode must be "MIN".

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Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
					The unitCode is defined in the list FLUX_UNIT. The value must not contain decimals.

7.2. FLUX Response Message

The FLUX Response Message is used to respond to a FLUX FA Report Message and contains validation results.

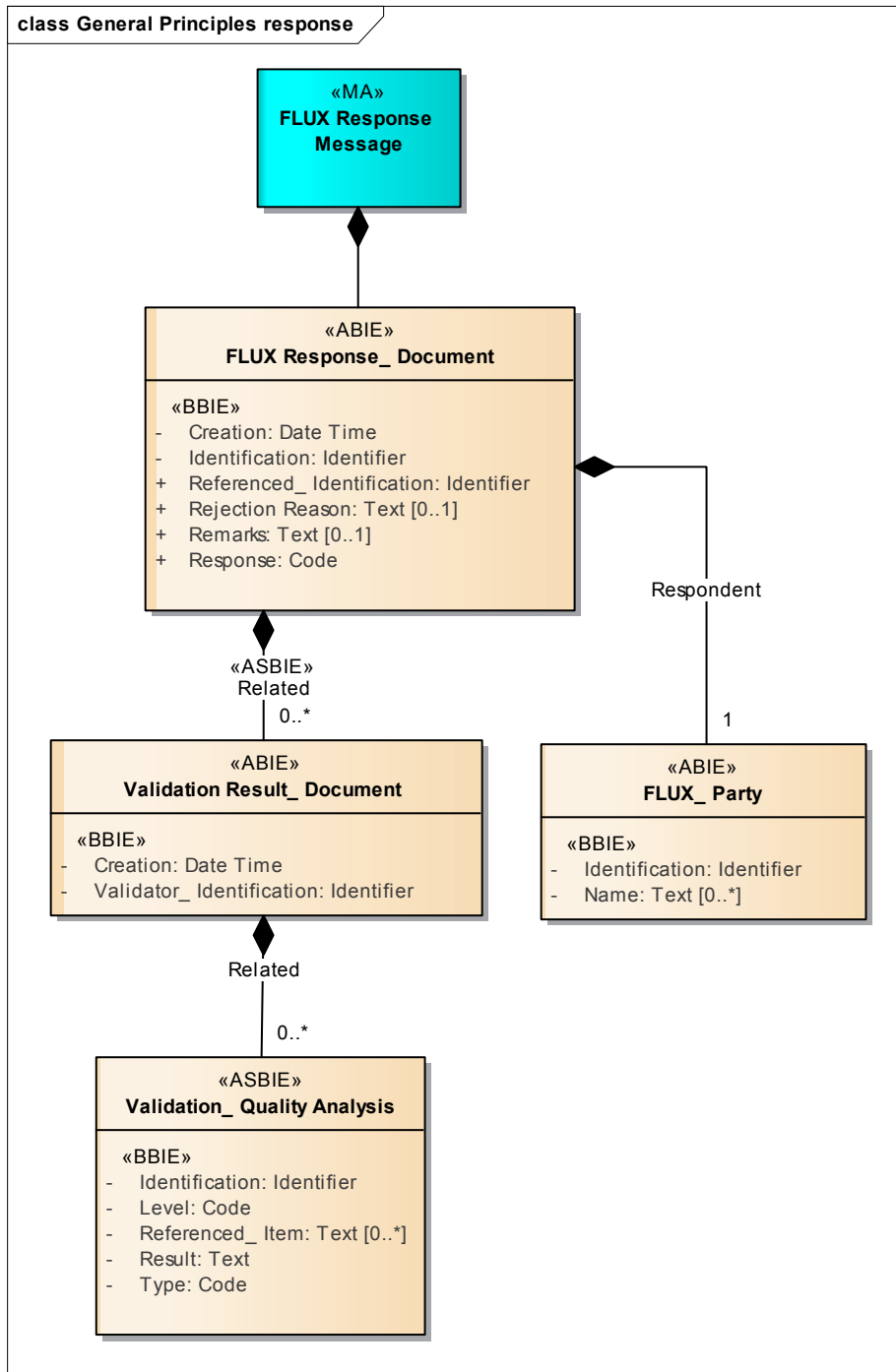


Figure 9 Class Diagram for FLUX Response Message (General Principles Response)

7.2.1. FLUX Response Document

This entity contains information on which message was validated, when and by whom as well as the set of validation results.

Table 33: Data elements and attributes of FLUXResponseDocument entity

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	The Global Unique Identifier of the FLUX Response Message.	<i>schemeID=UUID²⁹</i> as defined in the RFC 4122.
Referenced Identification	Identifier	1	1	The identifier of a referenced FLUX FA Report, to which this FLUX Response Document refers.	Used for referencing the query message or the report message that has been validated. <i>schemeID=UUID²⁹</i> as defined in the RFC 4122.
Creation	DateTime	1	1	The UTC date and time of the creation of this FLUX Response Message.	Must be according to the definition provided in 7.1(2).
Response	Code	1	1	The code specifying the general status of the validation process, which has been applied on the referenced FLUX FA Report Message.	<i>listID=FLUX_GP_RESPONSE</i> If at least one Business Rule fails with an error (NOK), the whole FLUX FA Report Message is rejected
Remarks	Text	0	1	A general textual remark related to the Response code.	Optional.
Related ValidationResult_Document	Assoc.	0	*	The validation result document related to this FLUX response.	To be provided only in case at least one BR fails (ResponseCode <> OK). See data elements and attributes in Table 34.
Respondent FLUX_Party	Assoc.	1	1	The party owning this FLUX Report Document.	See data elements and attributes in Table 36.

7.2.2. Validation Result Document

Table 34: Data elements and attributes of ValidationResultDocument entity

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Validator Identification	Identifier	1	1	The identifier the validating party.	<i>schemeID=FLUX_GP_PARTY</i>
Creation	DateTime	1	1	The UTC date/time of the creation of this validation report.	Must be according to the definition provided in 7.1(2).
Related Validation_QualityAnalysis	Assoc.	0	*	The validation result document related to this FLUX response.	Only the failed business rules ³⁰ are part of FLUX Response Document. The information on the failed business rules are at the level of data field. See data elements and attributes in Table 35.

7.2.3. Validation Quality Analysis

Table 35: Data elements and attributes of QualityAnalysis entity

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
ID	Identifier	1	1	Business rule identification.	See chapter 8. e.g.: FA-L00-00-0000
Level	Code	1	1	The code specifying the validation level of the business rule.	<i>listID= FLUX_GP_VALIDATION_LEVEL</i> e.g.: L00
Type	Code	1	1	The code specifying the type of error found.	<i>listID= FLUX_GP_VALIDATION_TYPE</i> e.g. Error, warning, etc.
Result	Text	1	1	Text explaining the business rule violation.	Standardized error/warning message in English. <i>Message</i> description on MDR in <i>listID=FA_BR</i>
ReferencedItem	Text	0	*	An information to locate in the XML the data causing the problem	X-path to the data element generating the business rule failure. Mandatory for rules with specific reference to an entity/data field/attribute

³⁰ All business rules applicable to the message that failed must be included (see section 6.4).

7.2.4. Respondent FLUX_Party

Table 36: Data elements and attributes of RespondentFLUXParty entity

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	The identifier of the party generating the response.	<i>schemeID= FLUX_GP_PARTY</i>

8. BUSINESS RULES

The list of business rules below is used to verify that the data quality of Fishing Activity messages transmitted over the FLUX system is sufficiently high to ensure their relevance. In an exchange of data between two systems without any human intervention, the principle is to give back to the sending system as much as possible feedback about the received message. Therefore it is advised to execute as many business rules as possible at the moment of reception of the message and to reply to the sender by putting in the response all the possible errors (or warnings) detected, not stopping the validation process at the first error (see also sections 6.2.1 and 6.4).

Before transmitting Fishing Activity messages, all business rules defined in this implementation document must be applied.

A business rule is applicable during a certain time period including the start and end dates of the specified period. The period during which the business rule is applicable is available on the Master Data Register page of the NEAFC website (<https://www.neafc.org/mdr>)².

Messages received must be validated according to the applicable business rules at the time of creation of the Fishing Activity Report document (FLUXFAReportDocument/CreationDateTime associated to the FAReportDocument). A business rule must be applied if the data used by the business rule is available in the message.

Mandatory and conditionally mandatory data elements are identified in chapter 7. Where a data element is mandatory to be provided, given the conditions, the XML tags in the report shall be present and not be empty. Where data elements are provided while not mentioned in this implementation document, but nevertheless comply with the UN/FLUX standard, the XML tags in the report may be ignored by the receiving party. It is therefore not mandatory to validate those data elements.

Rules related to data elements are only applicable if the data element is present, except for the rules which explicitly check the presence of a data element. Rules related to data elements of a particular entity, including the rules checking the presence of data elements, are only applicable if those entities are present. Rules checking presence of entities are applicable only if the parent entity is present.

An overloaded data element is defined as a data element communicated repetitively (based on the cardinality of the element defined in the data model) but exceeding the limit imposed by the implementation document. In this version of the document, there are no business rules³¹ defined to detect overloaded data elements and therefore to report such issue to the sender. Such data elements are ignored by the validation process. (e. g. multiple IRCS identifiers for a vessel in the XML: allowed by the standard but limited to one in the implementation document ...)

³¹ Additional business rules can be defined in a future version

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Validation of the format of the value of an identifier is based on the format defined for the schemeID. The format check must be applied if the format description and expression are provided for the schemeID in the Master Data Register. If it is not provided, any value provided must be considered valid.

The tables presented in the sections below must be read as follows:

- BR-ID: Business rule ID. Identifier assigned to the BR according to the following methodology: FA-Lxx-BB-CCCC
 - FA: Referring to the Fishing Activities domain
 - Lxx: The level of the business rule, where x is
 - 00: Integrity control
 - 01: Data field validation (one attribute)
 - 02: Row validation (one report)
 - 03: Content validation (coherence between reports or with external data)
 - BB: optional sub-level. This part of the numbering is used to identify the sub-levels, if FLUX domain requires the split of the business rules levels. If the domain does not require sub-level, '00' must be used.

Not used in the Fishing Activities domain.
 - CCCC: This part of BR identification represents the sequence number of the business rule in the level and/or sub-level group so it can be uniquely identified.
- Entity/Attribute: the entity in the Fishing Activities data model and the attribute(s) name(s) within this entity used by the BR. The names of entities and attributes are as defined in the UN/CEFACT XSD files.
- BR: description of the rule
- E/W: error or warning.
- Note: Any relevant information to clarify the BR

8.1. General business rules

BR-ID	Entity/Attribute	BR	E/W ³²	Note
FA-L00-00-0000	FLUXFAReportMessage	Verifies whether or not the message is valid XML and validates against the XSD schema	E	An invalid XML message has been received.

8.2. Rules for FLUXFAReportMessage entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0001	FLUXFAReportMessage/FLUXReportDocument/ID	Check presence. Must be present.	E	
FA-L01-00-0002	FLUXFAReportMessage/FLUXReportDocument/ID	Check attribute schemeID. Must be UUID.	E	
FA-L01-00-0003	FLUXFAReportMessage/FLUXReportDocument/ID	Check Format of the value. Must be according to the specified schemeID.	E	Check is case insensitive.
FA-L03-00-0004	FLUXFAReportMessage/FLUXReportDocument/ID	The identification must be unique and not already exist	E	If it exists already, the contents are considered identical and the message may be ignored by the receiving party.
FA-L00-00-0005	FLUXFAReportMessage/FLUXReportDocument/CreationDateTime	Check presence. Must be present.	E	
FA-L01-00-0006	FLUXFAReportMessage/FLUXReportDocument/CreationDateTime	Check Format. Must be according to the definition provided in 7.1(2).	E	
FA-L03-00-0007	FLUXFAReportMessage/FLUXReportDocument/CreationDateTime	Date must be in the past.	E	A threshold of 10 minutes to compensate for incorrect clock synchronization of the exchanging systems must be taken into account.
FA-L00-00-0008	FLUXFAReportMessage/FLUXReportDocument/PurposeCode	Check presence. Must be present.	E	
FA-L01-00-0009	FLUXFAReportMessage/FLUXReportDocument/PurposeCode	Check attribute listID. Must be FLUX_GP_PURPOSE	E	If listID provided.
FA-L01-00-0010	FLUXFAReportMessage/FLUXReportDocument/PurposeCode	Check code. Must be value 9 (original data)	E	
FA-L00-00-0014	FLUXFAReportMessage/FLUXReportDocument/OwnerFLUXParty/ID	Check presence. Must be present	E	
FA-L01-00-0015	FLUXFAReportMessage/FLUXReportDocument/OwnerFLUXParty/ID	Check attribute schemeID. Must be FLUX_GP_PARTY	E	
FA-L03-00-0016	FLUXFAReportMessage/FLUXReportDocument/OwnerFLUXParty/ID	Check if OwnerFLUXParty/ID is consistent with FLUX TL values.	E	The party sending must be allowed to send the message. Part of FLUX TL FR-value before colon must be equal to OwnerFLUXParty/ID
FA-L00-00-0017	FLUXFAReportMessage/FAReportDocument	Check presence. At least one occurrence must be present.	E	

³² Error/Warning

8.3. Rules for FAReportDocument entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0020	FAReportDocument/TypeCode, FAReportDocument/RelatedFLUX ReportDocument/PurposeCode	Check presence. Must be present in case of a new message or a correction.	E	PurposeCode 9or 5.
FA-L01-00-0021	FAReportDocument/TypeCode	Check attribute listID. Must be FLUX_FA_REPORT_TYPE	E	
FA-L01-00-0022	FAReportDocument/TypeCode	Check code. Must be existing in the list specified in attribute listID.	E	
FA-L00-00-0025	FAReportDocument/AcceptanceDateTime	Check presence. Must be present.	E	
FA-L01-00-0026	FAReportDocument/AcceptanceDateTime	Check Format. Must be according to the definition provided in 7.1(2).	E	Include the check if the date provided exists.
FA-L03-00-0027	FAReportDocument/AcceptanceDateTime	Date must be in the past	E	A threshold of 10 minutes to compensate for incorrect clock synchronization of the exchanging systems must be taken into account.
FA-L00-00-0480	FAReportDocument/FMCMarker	Check attribute listID. Must be FLUX_FA_FMC if data element present	E	
FA-L01-00-0481	FAReportDocument/FMCMarker	Check code. Must be existing in the list specified in attribute listID	E	
FA-L01-00-0028	FAReportDocument/RelatedFLUX ReportDocument	Check presence. Must be present.	E	
FA-L01-00-0580	FAReportDocument/RelatedFLUX ReportDocument/ID	Check attribute schemeID. At least one occurrence of schemeID must be UUID. In addition, another occurrence may be NEAFC_SQ	E	SQ number is optional
FA-L01-00-0030	FAReportDocument/RelatedFLUX ReportDocument/ID	Check Format. Must be according to the specified schemeID.	E	Check is case insensitive.
FA-L00-00-0032	FAReportDocument/RelatedFLUX ReportDocument/PurposeCode	Check presence. Must be present	E	
FA-L01-00-0033	FAReportDocument/RelatedFLUX ReportDocument/PurposeCode	Check attribute listID. Must be FLUX_GP_PURPOSE	E	
FA-L01-00-0034	FAReportDocument/RelatedFLUX ReportDocument/PurposeCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L03-00-0035	FAReportDocument/RelatedFLUX ReportDocument/ReferencedID, FAReportDocument/RelatedFLUX Report Document/PurposeCode	Check presence. Must be present if correction, deletion or cancellation of an earlier report. PurposeCode = 1, 3 or 5.	E	
FA-L01-00-0036	FAReportDocument/RelatedFLUX ReportDocument/ReferencedID	Check attribute schemeID. Must be UUID.	E	
FA-L01-00-0037	FAReportDocument/RelatedFLUX ReportDocument/ReferencedID	Check Format. Must be according to the specified schemeID.	E	Check is case insensitive.
FA-L00-00-0039	FAReportDocument/RelatedFLUX ReportDocument/CreationDateTi me	Check presence. Must be present.	E	
FA-L01-00-0040	FAReportDocument/RelatedFLUX ReportDocument/CreationDateTi me	Check Format. Must be according to the definition provided in 7.1(2).	E	
FA-L03-00-0041	FAReportDocument/RelatedFLUX ReportDocument/CreationDateTi me	Date must be in the past.	W	A threshold of 10 minutes to compensate for incorrect clock synchronization of the exchanging systems must be taken into account.

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BR-ID	Entity/Attribute	BR	E/W	Note
FA-L02-00-0042	FAReportDocument/AcceptanceDateTime, FAReportDocument/RelatedFLUXReportDocument/CreationDateTi me	Acceptance date/time must be before Creation date/time	E	A threshold of 10 minutes to compensate for incorrect clock synchronization of the exchanging systems must be taken into account.
FA-L00-00-0043	FAReportDocument/RelatedFLUX ReportDocument/OwnerFLUXPart y/ID	Check presence. Must be present	E	
FA-L01-00-0044	FAReportDocument/RelatedFLUX ReportDocument/OwnerFLUXPart y/ID	Check attribute schemeID. Must be FLUX_GP_PARTY	E	
FA-L02-00-0045	FAReportDocument/RelatedFLUX ReportDocument/OwnerFLUXPart y/ID, FLUXFAReportMessage/FLUXRepo rtDocument/OwnerFLUXParty/ID	Check if FAReportDocument/RelatedFLUXReport Document/OwnerFLUXParty/ID (owner of the report) is consistent FLUXFAReportMessage/FLUXReportDocu ment/OwnerFLUXParty/ID (party sending the message).	W	Both values must be identical, except where FLUXFAReportMessa ge/FLUXReportDocu ment/OwnerFLUXPa rty/ID starts with letter "X". E.g. XEU, XFA
FA-L00-00-0046	FAReportDocument/SpecifiedVess elTransportMeans, FAReportDocument/PurposeCode	SpecifiedVesselTransportMeans must be present, unless deletion or cancellation report.	E	If purposeCode 9 or 5, this entity is mandatory
FA-L00-00-0047	FAReportDocument/SpecifiedFishi ngActivity	Check presence. Must be present, unless deletion or cancellation report.	E	If purposeCode 9 or 5, there must be exactly one occurrence, except for fishing operations (code FISHING_OPERATIO N or JOINT_FISHING_OPE RATION) occurring on the same day.
FA-L00-00-TBA	FAReportDocument/Transmission DateTime	Check presence. Must be present.	E	
FA-L00-00-TBA	FAReportDocument/Transmission DateTime	Check Format. Must be according to the definition provided in 7.1(2).	E	Include the check if the date provided exists.
FA-L00-00-TBA	FAReportDocument/Transmission DateTime	Date must be in the past	E	A threshold of 10 minutes to compensate for incorrect clock synchronization of the exchanging systems must be taken into account.

8.4. Rules for VesselTransportMeans

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0563	VesselTransportMeans/ID	Check presence. At least 2 identifiers with distinct schemeID must be present if used in SpecifiedVesselTransportMeans	E	
FA-L00-00-0570	VesselTransportMeans/ID	Check presence. At least 1 identifier must be present if used in RelatedVesselTransportMeans	E	
FA-L01-00-0051	VesselTransportMeans/ID	Check schemeID. SchemeIDs must be present in the list FLUX_VESSEL_ID_TYPE	E	
FA-L01-00-0052	VesselTransportMeans/ID	Check Format. Must be according to the specified schemeID.	E	
FA-L03-00-0482	VesselTransportMeans/ID	One occurrence of ID must have schemeID=IRCS.	E	
FA-L00-00-0055	VesselTransportMeans/RoleCode	Check presence. Must be present if used in FishingActivity entity (i.e. RelatedVesselTransportMeans).	E	Conditions for RoleCode for the reporting vessel (i.e. FAReportDocument/SpecifiedVesselTransportMeans) are specified elsewhere.
FA-L01-00-0056	VesselTransportMeans/RoleCode	Check attribute listID. Must be FA_VESSEL_ROLE	E	
FA-L01-00-0057	VesselTransportMeans/RoleCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L00-00-0058	VesselTransportMeans/RegistrationVesselCountry/ID	Check presence. Must be present	E	
FA-L01-00-0059	VesselTransportMeans/RegistrationVesselCountry/ID	Check schemeID. Must be TERRITORY	E	
FA-L01-00-0060	VesselTransportMeans/RegistrationVesselCountry/ID	Check code. Must be existing in the list specified in attribute schemeID	E	
FA-L03-00-0062	VesselTransportMeans/ID, VesselTransportMeans/RegistrationVesselCountry/ID	The vessel identification and registration location (flag state) must be consistent	W	The vessel (based on the reported IDs) must be registered in the reported flag state on the report creation date.
FA-L00-00-0067	VesselTransportMeans/SpecifiedContactParty	Check presence. Must be present if used in entity FAReportDocument/SpecifiedVesselTransportMeans	E	
FA-L00-00-0069	VesselTransportMeans/SpecifiedContactParty/RoleCode	Check listID. Must be FLUX_CONTACT_ROLE	E	
FA-L01-00-0070	VesselTransportMeans/SpecifiedContactParty/RoleCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L02-00-0590	VesselTransportMeans/SpecifiedContactParty/RoleCode	Must be MASTER if used in entity FAReportDocument/SpecifiedVesselTransportMeans	W	
FA-L00-00-0072	VesselTransportMeans/SpecifiedContactParty/SpecifiedContactPerson/GivenName, VesselTransportMeans/SpecifiedContactParty/SpecifiedContactPerson/Alias	Check presence. Must be present if AliasText is not present.	E	
FA-L00-00-0074	VesselTransportMeans/SpecifiedContactParty/SpecifiedContactPerson/FamilyName, VesselTransportMeans/SpecifiedContactParty/SpecifiedContactPerson/Alias	Check presence. Must be present if Alias is not present	E	

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BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0076	VesselTransportMeans/SpecifiedContactParty/SpecifiedContactPerson/Alias, VesselTransportMeans/SpecifiedContactParty/SpecifiedContactPerson/GivenName, VesselTransportMeans/SpecifiedContactParty/SpecifiedContactPerson/FamilyName	Check presence. Must be present if GivenName or FamilyName is not present.	E	In some cases the name of the master is not available as first and last name, but as one text field containing a concatenation of both.
FA-L01-00-0077	VesselTransportMeans/SpecifiedContactParty/SpecifiedContactPerson/Alias	Non-empty	E	In some cases the name of the master is not available as first and last name, but as one text field containing a concatenation of both.
FA-L02-00-0469	VesselTransportMeans/SpecifiedVesselPositionEvent, FishingActivity/TypeCode	Check presence. SpecifiedVesselPositionEvent must be present if FishingActivity/TypeCode=AREA_ENTRY	E	

8.5. Rules for VesselPositionEvent

BR-ID	Entity	BR	E/W	Note
FA-L00-00-0458	VesselPositionEvent/TypeCode	Check presence. Must be present.	E	
FA-L01-00-0459	VesselPositionEvent/TypeCode	Check attribute listID. Must be FLUX_VESSEL_POSITION_TYPE	E	
FA-L01-00-0460	VesselPositionEvent/TypeCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L00-00-0461	VesselPositionEvent/ObtainedOccurrenceDateTime	Check presence. Must be present.	E	
FA-L01-00-0462	VesselPositionEvent/ObtainedOccurrenceDateTime	Check Format. Must be according to the definition provided in 7.1(2)	E	Include the check if the date provided exists.
FA-L00-00-0463	VesselPositionEvent/SpecifiedVesselGeographicalCoordinate/LatitudeMeasure	Check presence. Must be present	E	
FA-L01-00-0464	VesselPositionEvent/SpecifiedVesselGeographicalCoordinate/LatitudeMeasure	Must be a number with at least 3 decimal positions between -90.000 and 90.000 included.	E	
FA-L01-00-0465	VesselPositionEvent/SpecifiedVesselGeographicalCoordinate/LongitudeMeasure	Must be a number with at least 3 decimal positions between -180.000 and 180.000 included.	E	
FA-L00-00-0455	VesselPositionEvent/SpecifiedVesselGeographicalCoordinate/LongitudeMeasure	Check presence. Must be present	E	

8.6. Rules for FishingActivity entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0090	FishingActivity/TypeCode	Check presence. Must be present.	E	
FA-L01-00-0091	FishingActivity/TypeCode	Check attribute listID. Must be FLUX_FA_TYPE	E	
FA-L01-00-0092	FishingActivity/TypeCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L01-00-0094	FishingActivity/OccurrenceDateTi me	Check Format. Must be according to the definition provided in 7.1(2)	E	If provided. In some cases, depending on fishing activity type, a delimited period must be used instead.
FA-L01-00-0097	FishingActivity/ReasonCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L01-00-0101	FishingActivity/SpeciesTargetCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L01-00-0102	FishingActivity/VesselRelatedActiv ityCode	Check attribute listID. Must be VESSEL_ACTIVITY	E	
FA-L01-00-0103	FishingActivity/VesselRelatedActiv ityCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L01-00-0104	FishingActivity/Operations Quantity	Must be a positive integer ³³ number or zero (>=0)	E	
FA-L01-00-0105	FishingActivity/SpecifiedDelimited Period/DurationMeasure	Must be a positive number or zero (>=0)	E	
FA-L01-00-0106	FishingActivity/SpecifiedDelimited Period/DurationMeasure	Check attribute unitCode. Must be MIN (minutes)	W	Duration expressed in minutes
FA-L01-00-0484	FishingActivity/ SpecifiedDelimitedPeriod/Duratio nMeasure	Check presence of attribute unitCode. Must be present if data element provided.	E	

8.7. Rules for FACatch entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0150	FACatch/TypeCode	Check presence. Must be present.	E	
FA-L01-00-0151	FACatch/TypeCode	Check attribute listID. Must be FA_CATCH_TYPE	E	
FA-L01-00-0152	FACatch/TypeCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L00-00-0153	FACatch/SpeciesCode	Check presence. Must be present.	E	
FA-L01-00-0154	FACatch/SpeciesCode	Check attribute listID. Must be FAO_SPECIES	E	
FA-L01-00-0155	FACatch/SpeciesCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L00-00-0565	FACatch/WeightMeasure	Check presence. Must be present.	E	
FA-L01-00-0160	FACatch/WeightMeasure	Check attribute UnitCode. Must be KGM (kilograms)	E	

³³ Integer numbers are numbers without fractions. They should be provided in the reports without decimals.

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BR-ID	Entity/Attribute	BR	E/W	Note
FA-L01-00-0161	FACatch/WeightMeasure	Positive number with maximum 2 decimals or zero (>=0)	E	
FA-L01-00-0166	FACatch/SpecifiedSizeDistribution/ClassCode	Check attribute listID. Must be FISH_SIZE_CLASS	E	i.e. BMS, LSC
FA-L01-00-0167	FACatch/SpecifiedSizeDistribution/ClassCode	Check code. Must be existing in the list specified in attribute listID	E	

8.8. Rules for AAPStock entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0491	AAPStock/ID	Check presence. Must be present.	E	
FA-L01-00-0492	AAPStock/ID	Check attribute schemeID. Must be FA_NEAFC_STOCK	E	
FA-L01-00-0493	AAPStock/ID	Check code. Must be existing in the list specified in attribute schemeID	E	

8.9. Rules for FishingTrip entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0190	FishingTrip/ID	Check presence. Must be present.	E	At least one occurrence.
FA-L00-00-0487	FishingTrip/ID	Check attribute schemeID. Must be present.	E	
FA-L02-00-0591	FishingTrip/ID	Check attribute schemeID. At most one occurrence of ID for a given schemeID.	E	
FA-L01-00-0192	FishingTrip/ID	Check format. Must be according to schemeID rules.	E	

8.10. Rules for FLUXLocation entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0195	FLUXLocation/TypeCode	Check presence. Must be present.	E	
FA-L01-00-0196	FLUXLocation/TypeCode	Check attribute listID. Must be FLUX_LOCATION_TYPE	E	
FA-L01-00-0197	FLUXLocation/TypeCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L02-00-0201	FLUXLocation/ID, FLUXLocation/TypeCode	ID must be present, unless TypeCode is POSITION or ADDRESS	E	ID is optional for address and geographical location
FA-L01-00-0473	FLUXLocation/ID, FLUXLocation/TypeCode	Check attribute schemeID of ID. In case TypeCode=AREA: schemeID must be FAO_AREA, STAT_RECTANGLE,	E	

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BR-ID	Entity/Attribute	BR	E/W	Note
		TERRITORY, MANAGEMENT_AREA. In case TypeCode= "LOCATION" the schemeID must be LOCATION		
FA-L01-00-0203	FLUXLocation/ID	Check value. Must be existing in the list specified in attribute schemeID	E	
FA-L01-00-0204	FLUXLocation/RegionalFisheriesManagementOrganisationCode	Check attribute listID. Must be RFMO.	E	
FA-L01-00-0205	FLUXLocation/RegionalFisheriesManagementOrganisationCode	Check value. Must be existing in the list specified in attribute listID	E	
FA-L02-00-0206	FLUXLocation/SpecifiedPhysicalFLUXGeographicalCoordinate, FLUXLocation/TypeCode	Check presence. Must be present if FLUXLocation/TypeCode =POSITION.	E	Must be present if location type is POSITION.
FA-L01-00-0216	ApplicableFLUXCharacteristic/TypeCode	Check attribute listID. Must be FLUX_LOCATION_CHARACTERISTIC if used in entity FLUXLocation	E	

8.11. Rules for FLUXGeographicalCoordinate entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0207	FLUXLocation/SpecifiedPhysicalFLUXGeographicalCoordinate/LatitudeMeasure	Check presence. Must be present.	E	
FA-L01-00-0213	FLUXLocation/SpecifiedPhysicalFLUXGeographicalCoordinate/LatitudeMeasure	Must be a number with at least 3 decimal positions between -90.000 and 90.000 included.	E	Boundaries follow the EPSG ³⁴ definition for WGS84.
FA-L00-00-0210	FLUXLocation/SpecifiedPhysicalFLUXGeographicalCoordinate/LongitudeMeasure	Check presence. Must be present.	E	
FA-L01-00-0214	FLUXLocation/SpecifiedPhysicalFLUXGeographicalCoordinate/LongitudeMeasure	Must be a number with at least 3 decimal positions between -180.000 and 180.000 included.	E	Boundaries follow the EPSG ³⁴ definition for WGS84.

8.12. Rules for FishingGear entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0540	FishingGear/TypeCode	Check presence. Must be present.	E	
FA-L01-00-0120	FishingGear/TypeCode	Check attribute listID. Must be GEAR_TYPE	E	
FA-L01-00-0121	FishingGear/TypeCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L02-00-0592	FishingGear/ApplicableGearCharacteristic, FishingGear/TypeCode	ApplicableGearCharacteristic must be present if FishingGear/TypeCode requires specific characteristics to be reported. Only applicable if used in entity FishingActivity	W	As many occurrences required as defined in the annex 14.1).

³⁴ The EPSG Geodetic Parameter Dataset is a collection of definitions of coordinate reference systems and coordinate transformations. It is a standardized way to specify the coordinate system & parameters. WGS84 corresponds to EPSG:4326.

8.13. Rules for GearCharacteristic entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0124	GearCharacteristic/TypeCode	Check presence. Must be present.	E	
FA-L01-00-0125	GearCharacteristic/TypeCode	Check attribute listID. Must be FA_GEAR_CHARACTERISTIC	E	
FA-L01-00-0126	GearCharacteristic/TypeCode	Check the value of the code. Must be existing in the list specified in attribute listID	E	
FA-L00-00-0128	GearCharacteristic/ValueMeasure	If UN_DATA_TYPE ³⁵ for the characteristic (specified in GearCharacteristic/TypeCode) is MEASURE or NUMBER, ValueMeasure must be present and have a value	E	If gear characteristic requires value of type Measure
FA-L01-00-0510	GearCharacteristic/ValueMeasure	Check attribute <i>unitCode</i> . The unitCode is defined in the list FLUX_UNIT. Use the value as specified in Annex 14.1.	E	
FA-L00-00-0129	GearCharacteristic/ValueIndicator	If UN_DATA_TYPE ³⁵ for the characteristic (specified in GearCharacteristic/TypeCode) is BOOLEAN, ValueIndicator must be present and have a value.	E	If gear characteristic requires value of type Indicator
FA-L00-00-0130	GearCharacteristic/ValueCode	If UN_DATA_TYPE ³⁵ for the characteristic (specified in GearCharacteristic/TypeCode) is CODE, ValueCode must be present and have a value	E	If gear characteristic requires value of type Code
FA-L03-00-0145	GearCharacteristic/ValueCode	Check presence of attribute listID. Must be present and have a value of an existing code list in MDR.	E	
FA-L01-00-0146	GearCharacteristic/ValueCode	Check value. Must be existing on the MDR code list specified in listID.	E	
FA-L00-00-0131	GearCharacteristic/Value	If UN_DATA_TYPE ³⁵ for the characteristic (specified in GearCharacteristic/TypeCode) is TEXT, Value must be present and non-empty.	E	If gear characteristic requires value of type Text
FA-L00-00-0132	GearCharacteristic/ValueQuantity	If UN_DATA_TYPE ³⁵ for the characteristic (specified in GearCharacteristic/TypeCode) is QUANTITY, ValueQuantity must be present and have a value	E	If gear characteristic requires value of type Quantity

8.14. Rules for GearProblem entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0135	GearProblem/TypeCode	Check presence. Must be present.	E	
FA-L01-00-0136	GearProblem/TypeCode	Check attribute listID. Must be FA_GEAR_PROBLEM.	E	
FA-L01-00-0137	GearProblem/TypeCode	Check code. Must be existing in the list specified in attribute listID.	E	

³⁵ Reference to UN_DATA_TYPE field in the FA_GEAR_CHARACTERISTIC code list on MDR.

8.15. Rules for FLUXCharacteristic entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0220	FLUXCharacteristic/TypeCode	Check presence. Must be present.	E	
FA-L01-00-0221	FLUXCharacteristic/TypeCode	Check the value of the code. Must be existing in the list specified in attribute listID	E	
FA-L00-00-0223	FLUXCharacteristic/ValueMeasure	If UN_DATA_TYPE ³⁶ for the characteristic (specified in FLUXCharacteristic/TypeCode) is MEASURE or NUMBER, ValueMeasure must be present and have a value.	E	If FLUX_characteristic requires value of type Measure
FA-L00-00-0229	FLUXCharacteristic/ValueMeasure	Check attribute <i>unitCode</i> . The unitCode is defined in the list FLUX_UNIT.	E	If FLUX_characteristic requires value of type Measure
FA-L00-00-0224	FLUXCharacteristic/ValueDateTime	If UN_DATA_TYPE ³⁶ for the characteristic (specified in FLUXCharacteristic/TypeCode) is DATETIME, ValueDateTime must be present.	E	If FLUX_characteristic requires value of type DateTime
FA-L00-00-0225	FLUXCharacteristic/ValueIndicator	If UN_DATA_TYPE ³⁶ for the characteristic (specified in FLUXCharacteristic/TypeCode) is BOOLEAN, ValueIndicator must be present and have a value.	E	If FLUX_characteristic requires value of type Indicator
FA-L00-00-0226	FLUXCharacteristic/ValueCode	If UN_DATA_TYPE ³⁶ for the characteristic (specified in FLUXCharacteristic/TypeCode) is CODE, ValueCode must be present and have a value.	E	If FLUX_characteristic requires value of type Code
FA-L03-00-0147	FLUXCharacteristic/ValueCode	Check presence of attribute listID. Must be present and have a value of an existing code list in MDR.	E	
FA-L01-00-0148	FLUXCharacteristic/ValueCode	Check value. Must be existing on the MDR code list specified in listID.	E	
FA-L00-00-0227	FLUXCharacteristic/Value	If UN_DATA_TYPE ³⁶ for the characteristic (specified in FLUXCharacteristic/TypeCode) is TEXT, Value must be present and non-empty.	E	If FLUX_characteristic requires value of type Text
FA-L00-00-0228	FLUXCharacteristic/ValueQuantity	If UN_DATA_TYPE ³⁶ for the characteristic (specified in FLUXCharacteristic/TypeCode) is QUANTITY, ValueQuantity must be present and have a value.	E	If FLUX_characteristic requires value of type Quantity

³⁶ Reference to UN_DATA_TYPE field in the code list (on MDR) specified in the listID attribute of FLUXCharacteristic/TypeCode.

8.16. Additional rules for a prior notification of entry

BR-ID	Entity/Attribute	BR	E/W	Note
<i>CONDITION</i>	<i>FishingActivity/TypeCode, FAReportDocument/TypeCode</i>	<i>If AREA_ENTRY NOTIFICATION</i>		<i>All rules in this table apply to reports that match this condition.</i>
FA-L02-00-0471	FishingActivity/RelatedFLUXLocation	Check presence. At least 1 occurrence must be present if the activity is an area entry notification.	E	
FA-L02-00-0456	FishingActivity/RelatedFLUXLocation/TypeCode	At least one occurrence of RelatedFLUXLocation/TypeCode must have the value AREA if the activity is an area entry notification.	E	
FA-L02-00-0466	FishingActivity/RelatedFLUXLocation/TypeCode	The schemeID of at least one occurrence with RelatedFLUXLocation/TypeCode=AREA must have RelatedFLUXLocation/ID=MANAGEMENT_AREA if the activity is an area entry notification.	W	
FA-L02-00-0468	FishingActivity/SpecifiedFACatch/TypeCode	Must have at least one occurrence with TypeCode ONBOARD if the activity is an area entry notification	E	
FA-L02-00-0511	FishingActivity/ReasonCode	Check presence. Must be present if the activity is an area entry notification.	E	
FA-L02-00-0512	FishingActivity/ReasonCode	Check attribute listID. Must be FA_REASON_ENTRY if the activity is an area entry notification	E	
FA-L02-00-0514	FishingActivity/SpeciesTargetCode, FishingActivity/ReasonCode	Check presence. Must be present if ReasonCode=FIS if the activity is an area entry notification	E	
FA-L02-00-0515	FishingActivity/SpeciesTargetCode	Check attribute listID. Must be FAO_SPECIES if the activity is an area entry notification	E	
FA-L02-00-0517	FishingActivity/RelatedFishingActivity, FishingActivity/ReasonCode	Check presence of RelatedFishingActivity. Must be present if the activity is an area entry notification and ReasonCode is FIS or TRX.	E	
FA-L02-00-0520	FishingActivity/RelatedFishingActivity/TypeCode	Check value of the code. Must be START_ACTIVITY if the activity is an area entry notification	E	
FA-L02-00-0521	FishingActivity/RelatedFishingActivity/OccurrenceDateTime, FishingActivity/TypeCode	Check presence. Must be present if the parent activity is an area entry notification	E	
FA-L02-00-0523	FishingActivity/RelatedFishingActivity/RelatedFLUXLocation, FishingActivity/TypeCode	Check presence. Must be present if the parent activity is an area entry notification.	E	
FA-L02-00-0524	FishingActivity/RelatedFishingActivity/RelatedFLUXLocation/TypeCode, FishingActivity/TypeCode	Check value. At least one occurrence of RelatedFLUXLocation/TypeCode must be POSITION if the parent activity is an area entry notification.	E	

8.17. Additional rules for a fishing operation declaration

BR-ID	Entity/Attribute	BR	E/W	Note
CONDITION	FishingActivity/TypeCode, FAReportDocument/TypeCode	If FISHING_OPERATION DECLARATION		All rules in this table apply to reports that match this condition.
FA-L02-00-0256	FishingActivity/VesselRelatedActivityCode	Check presence. Must be present if the activity is fishing operation declaration.	E	
FA-L02-00-0535	FishingActivity/OperationsQuantity, FishingActivity/RelatedFishingActivity	Check presence. Must be present if the activity is a fishing operation declaration and no RelatedFishingActivity entities are present	E	Not applicable for haul by haul (i.e. RelatedFishingActivity GEAR_SHOT, GEAR_RETRIEVAL)
FA-L02-00-0564	FishingActivity/SpecifiedFACatch, FishingActivity/VesselRelatedActivityCode	Check presence. Must be present if the activity is fishing operation declaration and VesselRelatedActivityCode = FIS	E	
FA-L02-00-0536	FishingActivity/SpecifiedFACatch/TypeCode	Value must be ONBOARD if the activity is fishing operation declaration	E	
FA-L02-00-0537	FishingActivity/SpecifiedDelimitedPeriod/DurationMeasure, FishingActivity/VesselRelatedActivityCode	Check presence. Must be present if the activity is fishing operation declaration and VesselRelatedActivityCode = FIS	E	
FA-L02-00-0531	FishingActivity/RelatedFLUXLocation, FishingActivity/RelatedFLUXLocation/ID	At least one occurrence must be present with schemeID=MANAGEMENT_AREA if activity is fishing operation declaration	W	
FA-L02-00-0532	FishingActivity/RelatedFLUXLocation, FishingActivity/RelatedFLUXLocation/ID	At least one occurrence must be present with schemeID=FAO_AREA or STAT_RECTANGLE if activity is fishing operation declaration and no RelatedFishingActivity entities are present	E	
FA-L03-00-0545	FishingActivity/RelatedFLUXLocation/ID	If attribute schemeID=FAO_AREA, then must be FAO division (3 levels: area, sub-area, division) if the activity is fishing operation declaration	W	
FA-L03-00-0546	FishingActivity, FishingActivity/RelatedFishingActivity	If the activity is fishing operation declaration, there must be either no RelatedFishingActivity or there must be 2	W	
FA-L02-00-0260	FishingActivity/RelatedFishingActivity/TypeCode, FishingActivity/TypeCode	If the activity is fishing operation declaration, FishingActivity/RelatedFishingActivity/TypeCode must be GEAR_SHOT or GEAR_RETRIEVAL (if RelatedFishingActivity entity is present).	E	
FA-L02-00-0547	FishingActivity/RelatedFishingActivity/RelatedFLUXLocation	Check presence. At least one occurrence must be present if the activity is fishing operation declaration.	E	
FA-L02-00-0548	FishingActivity/RelatedFishingActivity/RelatedFLUXLocation/TypeCode, FishingActivity/RelatedFishingActivity/TypeCode	Check value of RelatedFishingActivity/RelatedFLUXLocation/TypeCode. If RelatedFishingActivity/TypeCode=GEAR_SHOT and the activity is fishing operation declaration, there must be at least one occurrence with TypeCode=POSITION	E	Start position
FA-L02-00-0549	FishingActivity/RelatedFishingActivity/RelatedFLUXLocation/TypeCode, FishingActivity/RelatedFishingActivity/TypeCode	Check value of RelatedFishingActivity/RelatedFLUXLocation/TypeCode If RelatedFishingActivity/TypeCode= GEAR_RETRIEVAL SHOT and the activity is fishing operation declaration, there must be at least one occurrence with TypeCode=POSITION	E	End position.

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BR-ID	Entity/Attribute	BR	E/W	Note
FA-L02-00-0550	FishingActivity/RelatedFishingActivity/SpecifiedFLUXCharacteristic/TypeCode	Check value. If provided, there must be one occurrence with FISHING_DEPTH and one with BOTTOM_DEPTH	E	
FA-L02-00-0610	FishingActivity/RelatedFishingActivity/TypeCode, FishingActivity/TypeCode	If the activity is a fishing operation declaration and the RelatedFishingActivity/TypeCode is either GEAR_SHOT or GEAR_RETRIEVAL, then the RelatedFishingActivity shall not contain SpecifiedFACatch entities.	E	
FA-L00-00-0571	FAReportDocument/SpecifiedVesselTransportMeans/RoleCode, FishingActivity/RelatedVesselTransportMeans	Check presence. Must be present if the activity is fishing operation declaration and a relatedVesselTransportMeans is present.	E	The role of the reporting vessel must be provided in case more than one vessel is involved in the activity
FA-L01-00-0582	FishingActivity/RelatedVesselTransportMeans/RoleCode	Must be either PAIR_FISHING_PARTNER or DONOR if the activity is a fishing operation declaration...	E	The role of the other vessel involved in the activity must be specified.

8.18. Additional rules for a discard declaration

BR-ID	Entity	BR	E/W	Note
<i>CONDITION</i>	<i>FishingActivity/TypeCode, FishingActivity/FAReportDocument/TypeCode</i>	<i>If DISCARD DECLARATION</i>		<i>All rules in this table apply to reports that match this condition.</i>
FA-L02-00-0281	FishingActivity/RelatedFLUXLocation	Check presence. At least 1 occurrence must be present if the activity is discard declaration.	E	
FA-L02-00-0567	FishingActivity/SpecifiedFACatch, FishingActivity/SpecifiedFACatch/TypeCode	At least one occurrence must be present and have TypeCode=DISCARDED if the activity is discard operation declaration	W	
FA-L02-00-0533	FishingActivity/SpecifiedFACatch/ SpecifiedFLUXLocation, FishingActivity/SpecifiedFACatch/ SpecifiedFLUXLocation/ID	At least one occurrence must be present having a SpecifiedFLUXLocation/ID with schemeID=MANAGEMENT_AREA if activity is discard operation declaration (and catches provided)	W	Location where the discarded catches were taken.
FA-L02-00-0534	FishingActivity/SpecifiedFACatch/ SpecifiedFLUXLocation, FishingActivity/SpecifiedFACatch/ SpecifiedFLUXLocation/ID	At least one occurrence must be present with schemeID=FAO_AREA or STAT_RECTANGLE if activity is discard operation declaration (and catches provided)	E	Location where the discarded catches were taken.
FA-L02-00-0560	FishingActivity/ReasonCode	Check presence. Must be present if the activity is discard operation declaration.	E	
FA-L02-00-0561	FishingActivity/ReasonCode	Check attribute listID. Must be FA_REASON_DISCARD if the activity is discard operation declaration	E	
FA-L02-00-0562	FishingActivity/OccurrenceDateTime	Check presence. Must be present if the activity is discard operation declaration.	E	
FA-L02-00-0568	FishingActivity/SpecifiedFLUXCharacteristic/TypeCode	Value must be REMARK if the activity is discard operation declaration	E	

8.19. Additional rules for a transshipment declaration (by receiver)

BR-ID	Entity/Attribute	BR	E/W	Note
<i>CONDITION</i>	<i>FishingActivity/TypeCode, FishingActivity/FAReportDocument/TypeCode</i>	if TRANSHIPMENT DECLARATION		<i>All rules in this table apply to reports that match this condition.</i>
FA-L02-00-0321	FishingActivity/RelatedFLUXLocation	Check presence. At least 1 occurrence must be present if the activity is a transshipment declaration.	E	
FA-L02-00-0322	FishingActivity/RelatedFLUXLocation/TypeCode	If the activity is a transshipment declaration, the TypeCode value of at least one RelatedFLUXLocation must be LOCATION or POSITION.	E	
FA-L02-00-0323	FishingActivity/RelatedVesselTransportMeans	Check presence. Must be present if the activity is a transshipment declaration.	E	
FA-L00-00-0559	FAReportDocument/SpecifiedVesselTransportMeans/RoleCode	Check presence. Must be present if the activity is a transshipment declaration.	E	
FA-L02-00-0569	FishingActivity/RelatedVesselTransportMeans/RoleCode	Check value. Must be DONOR if the activity is a transshipment declaration.	E	
FA-L02-00-0552	FishingActivity/SpecifiedFACatch/TypeCode	Check value. Must be LOADED or ONBOARD if the activity is a transshipment declaration.	E	
FA-L02-00-0583	FishingActivity/SpecifiedFACatch, FishingActivity/SpecifiedFACatch/TypeCode	Check presence. At least 2 occurrences of SpecifiedFACatch with different values for SpecifiedFACatch/TypeCode must be present if the activity is a transshipment declaration.	E	Catches loaded and catches on board after transshipment.
FA-L02-00-0538	FishingActivity/SpecifiedDelimitedPeriod, FishingActivity/SpecifiedDelimitedPeriod/EndDateTime	Check presence. Must be present and have at least EndDateTime present if the activity is a transshipment declaration.	E	

8.20. Additional rules for a notification of transshipment (by donor)

BR-ID	Entity/Attribute	BR	E/W	Note
<i>CONDITION</i>	<i>FishingActivity/TypeCode, FishingActivity/FAReportDocument/TypeCode</i>	if TRANSHIPMENT NOTIFICATION		<i>All rules in this table apply to reports that match this condition.</i>
FA-L02-00-0407	FishingActivity/RelatedFLUXLocation	Check presence. At least 1 occurrence must be present if the activity is a transshipment notification.	E	
FA-L02-00-0408	FishingActivity/RelatedFLUXLocation/TypeCode	Check value. There must be at least one occurrence with value POSITION if the activity is a transshipment notification.	E	
FA-L02-00-0409	FishingActivity/RelatedVesselTransportMeans	Check presence. Must be present if the activity is a transshipment notification.	E	
FA-L02-00-0412	FishingActivity/RelatedVesselTransportMeans/RoleCode	Check value. Must be RECEIVER if the activity is a transshipment notification	E	
FA-L00-00-0452	FishingActivity/OccurrenceDateTime	Check presence. Must be present if the activity is a transshipment notification.	E	
FA-L02-00-0557	FishingActivity/SpecifiedFACatch, FishingActivity/SpecifiedFACatch/TypeCode	Check presence. At least 2 occurrences of SpecifiedFACatch with different values for SpecifiedFACatch/TypeCode must be present if the activity is a transshipment notification.	E	Catches unloaded and catches on board prior to transshipment.

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BR-ID	Entity/Attribute	BR	E/W	Note
FA-L02-00-0551	FishingActivity/SpecifiedFACatch/TypeCode	Check value. Must be UNLOADED or ONBOARD if the activity is a transshipment notification.	E	

8.21. Additional rules for a prior notification of exit

BR-ID	Entity/Attribute	BR	E/W	Note
<i>CONDITION</i>	<i>FishingActivity/TypeCode, FishingActivity/FAReportDocument/TypeCode</i>	If AREA_EXIT NOTIFICATION		<i>All rules in this table apply to reports that match this condition.</i>
FA-L02-00-0472	FishingActivity/RelatedFLUXLocation	Check presence. At least 1 occurrence must be present if the activity is an area exit notification.	E	
FA-L02-00-0450	FishingActivity/RelatedFLUXLocation/TypeCode	At least one occurrence of RelatedFLUXLocation/TypeCode must have the value AREA if the activity is an area exit notification.	E	
FA-L02-00-0470	FishingActivity/RelatedFLUXLocation/ID, FishingActivity/RelatedFLUXLocation/TypeCode	The schemeID of at least one occurrence with RelatedFLUXLocation/TypeCode=AREA must have RelatedFLUXLocation/ID=MANAGEMENT_AREA if the activity is an area exit notification.	W	
FA-L02-00-0457	FishingActivity/RelatedFLUXLocation/TypeCode	If the activity is an area exit notification, TypeCode must be either POSITION or AREA.	E	
FA-L02-00-0558	FishingActivity/SpecifiedFACatch/TypeCode	Must have at least one occurrence with TypeCode ONBOARD if the activity is an area exit notification	E	

8.22. Additional rules for a port of landing notification

BR-ID	Entity/Attribute	BR	E/W	Note
<i>CONDITION</i>	<i>FishingActivity/TypeCode, FishingActivity/FAReportDocument/TypeCode</i>	If ARRIVAL NOTIFICATION		<i>All rules in this table apply to reports that match this condition.</i>
FA-L00-00-0291	FishingActivity/OccurrenceDateTi me	Check presence. Must be present if the activity is an arrival notification.	E	
FA-L02-00-0292	FishingActivity/ReasonCode	Check presence. Must be present if the activity is an arrival notification.	E	
FA-L02-00-0293	FishingActivity/ReasonCode	Check attribute listID. Must be FA_REASON_ARRIVAL if the activity is an arrival notification.	E	
FA-L02-00-0294	FishingActivity/RelatedFLUXLocati on	Check presence. At least one occurrence must be present if the activity is an arrival notification.	E	
FA-L02-00-0295	FishingActivity/RelatedFLUXLocati on/TypeCode	TypeCode must be LOCATION for at least one occurrence if the activity is an arrival notification.	W	
FA-L02-00-0296	FishingActivity/SpecifiedFACatch, FishingActivity/ReasonCode	Check presence. Must be present if the activity is an arrival notification and ReasonCode is LAN (landing)	E	
FA-L02-00-0297	FishingActivity/SpecifiedFACatch/ TypeCode	Must have at least one occurrence with TypeCode ONBOARD if the activity is an arrival notification.	E	
FA-L02-00-0298	FishingActivity/SpecifiedFACatch/ TypeCode, FishingActivity/ReasonCode	Must have at least one occurrence with TypeCode UNLOADED if the activity is an arrival notification (and if SpecifiedFACatch provided)	E	
FA-L02-00-0556	FishingActivity/RelatedFLUX Location/ApplicableFLUXCharacte ristic/TypeCode	Check value. Must be LANDING_SITE if the activity is an arrival notification.	E	

8.23. Rules for FLUXResponse entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0380	FLUXResponseDocument/ID	Check attribute schemeID. Must be UUID.	E	
FA-L01-00-0381	FLUXResponseDocument/ID	Check Format. Must be according to the specified schemeID.	E	Check is case insensitive.
FA-L03-00-0382	FLUXResponseDocument/ID	The identification must be unique and not already exist.	E	
FA-L00-00-0383	FLUXResponseDocument/ReferencedID	Check attribute schemeID. Must be a valid value from code list FLUX_GP_MSG_ID.	E	<i>schemeID</i> =FLUXTL_ON (reference from the envelope) may be used only in case of a parsing problem with the message or a non-availability of or incorrect UUID.
FA-L01-00-0384	FLUXResponseDocument/ReferencedID	Check Format. Must be according to the specified schemeID.	E	Check is case insensitive.
FA-L03-00-0385	FLUXResponseDocument/ReferencedID	The identification must exist for a FLUXFAReportMessage or for a FLUXFAQuery message	W	
FA-L00-00-0386	FLUXResponseDocument/ResponseCode	Check presence. Must be present.	E	
FA-L02-00-0387	FLUXResponseDocument/ResponseCode	Check attribute listID. Must be FLUX_GP_RESPONSE	E	
FA-L02-00-0388	FLUXResponseDocument/ResponseCode	Check value. Code must be value of the specified code list in listID.	E	
FA-L00-00-0389	FLUXResponseDocument/CreationDateTime	Check presence. Must be present.	E	
FA-L01-00-0390	FLUXResponseDocument/CreationDateTime	Check Format. Must be according to the definition provided in 7.1(2).	E	
FA-L01-00-0391	FLUXResponseDocument/CreationDateTime	Date must be in the past.	W	A threshold of 10 minutes to compensate for incorrect clock synchronization of the exchanging systems must be taken into account.
FA-L00-00-0553	FLUXResponseDocument/RespondentFLUXParty	Check presence. Must be present	E	
FA-L02-00-0368	FLUXResponseDocument/ValidationResultDocument, FLUXResponseDocument/ResponseCode	At least one occurrence if ResponseCode <> OK	E	

8.24. Rules for Respondent FLUXParty entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0392	RespondentFLUXParty/ID	Check presence. Must be present	E	
FA-L01-00-0393	RespondentFLUXParty/ID	Check attribute schemeID. Must be FLUX_GP_PARTY	E	
FA-L03-00-0394	RespondentFLUXParty/ID	Check if RespondentFLUXParty/ID is consistent with FLUX TL values.	E	The party sending the response must be the same as the one from the FR value of the FLUX TL envelope. Only the part before the first colon in the FR value is to be considered: E.g. ABC: something => only ABC refers to the party for the purpose of this rule.

8.25. Rules for ValidationResultDocument entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0395	ValidationResultDocument/ValidatorID	Check presence. Must be present.	E	
FA-L01-00-0396	ValidationResultDocument/ValidatorID	Check schemeID. Must be FLUX_GP_PARTY.	E	
FA-L01-00-0555	ValidationResultDocument/ValidatorID	Check value. Must be value from the code list specified in schemeID.	E	
FA-L02-00-0554	ValidationResultDocument/ValidationQualityAnalysis, FLUXResponseDocument/ResponseCode	At least one occurrence must be present if ResponseCode<> OK	E	

8.26. Rules for ValidationQualityAnalysis entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0397	ValidationQualityAnalysis/ID	Check presence. Must be present.	E	
FA-L01-00-0398	ValidationQualityAnalysis/ID	Check schemeID. Must be FA_BR.	E	
FA-L01-00-0399	ValidationQualityAnalysis/ID	Check value. Code must be value of the specified code list in schemeID.	E	Note: only active rules, valid at report creation date and applicable to the context, are to be considered.
FA-L02-00-0400	ValidationQualityAnalysis/LevelCode	Check presence. Must be present.	E	
FA-L01-00-0401	ValidationQualityAnalysis/LevelCode	Check listID. Must be FLUX_GP_VALIDATION_LEVEL.	E	
FA-L01-00-0402	ValidationQualityAnalysis/LevelCode	Check Code. Must be in the list specified in listID.	E	
FA-L01-00-0403	ValidationQualityAnalysis/TypeCode	Check listID. Must be FLUX_GP_VALIDATION_TYPE.	E	
FA-L01-00-0406	ValidationQualityAnalysis/TypeCode	Check value of TypeCode. Must be in the list specified in listID.	E	
FA-L00-00-0404	ValidationQualityAnalysis/Result	Must be non-empty	W	
FA-L01-00-0405	ValidationQualityAnalysis/ReferencedItem, ValidationQualityAnalysis/TypeCode	At least one non-empty occurrence if TypeCode is ERR or WAR.	W	x-path to the location in the FLUXFAReportMessage causing the rule to fail

9. XML EXAMPLES

XML examples will be provided on <https://www.neafc.org/mdr>.

10. CODE LISTS

All XSDs and code lists are listed on <https://www.neafc.org/mdr>.² (.

The values mentioned in above tables for the listID attribute refer to a code list alias in the table below, which can be used to find the code list in MDR or query the code lists from MDM services using the FLUX Master Data Management specifications³⁷.

Code list alias (ListID in the XSD)
FA_BR
FA_CATCH_TYPE
FA_DEVICE_GEAR_ATTACHMENT
FA_GEAR_CHARACTERISTIC
FA_GEAR_PROBLEM
FA_NEAFC_STOCK
FA_REASON_ARRIVAL
FA_REASON_DISCARD
FA_REASON_ENTRY
FA_TRIP_ID_TYPE
FA_VESSEL_ROLE
FAO_AREA
FAO_SPECIES
FISH_SIZE_CLASS
FLUX_CONTACT_ROLE
FLUX_FA_FMC
FLUX_FA_REPORT_TYPE
FLUX_FA_TYPE
FLUX_GP_MSG_ID
FLUX_GP_PARTY
FLUX_GP_PURPOSE
FLUX_GP_RESPONSE
FLUX_GP_VALIDATION_LEVEL
FLUX_GP_VALIDATION_TYPE
FLUX_LOCATION_CHARACTERISTIC
FLUX_LOCATION_TYPE
FLUX_UNIT
FLUX_VESSEL_ID_TYPE
FLUX_VESSEL_POSITION_TYPE
GEAR_TYPE
LOCATION
MANAGEMENT_AREA
RFMO
STAT_RECTANGLE
TERRITORY
VESSEL_ACTIVITY

³⁷ FLUX BRS: P1000 – 10; MDM domain

11. FLUX TL ENVELOPE PARAMETERS

The following FLUX TL parameters must be used for transmission of FLUX FA Report Messages and the related FLUX Response messages described in this document.

Common name	FLUX TL Envelope Tag name	Value	Remark
Dataflow name	DF	urn:un:unece:uncefact:fisheries:FLUX:FA:XNE:1	According to format: urn:un:unece:uncefact:fisheries:FLUX:[domain]:[context]:[version]
Timeout DateTime	TODT	DateTime (in UTC) of creation of the envelope + - 72 hours.	Value expressed as XSD DateTime in UTC. The TODT offset parameter (FLUX TL) should be configured to 72 hours. The FLUX TL will retry an undelivered envelope in a given schedule until the TODT is reached.
Acknowledge Receipt	AR	True	This parameter indicates that FLUX TL will always return an acknowledgement of receipt when the message has been received by the FLUX TL destination node. Note: a non-delivery message is always sent when the recipient cannot be reached, or timeout (TODT) time has been expired.

12. VERSIONING

Version	Date	Notes
2.0	03-Sep-2020	Based on NEAFC-FLUX-FA-ERS-Implementation-v1.1.2 Addition of FLUXFAReportMessage/FAReportDocument/TransmissonDateTime Addition of BR relating to FLUXFAReportMessage/FAReportDocument/TransmissonDateTime

13. CONTACT

Rachel Lewsley
Information Technology and Web Production Officer

Anthony Early
IT and Systems Development Officer

Please address enquiries for these Officers to info@neafc.org so the query can be routed as appropriate

14. ANNEXES:

14.1. Gear characteristics to be reported for each gear type.

The tables below show the description of the gear attribute codes and which of those are mandatory to be provided for each type of gear³⁸, where a business rule has been established. Gear characteristics which are only mandatory in certain conditions where a business rule cannot be established are not marked here but are required according to the NEAFC Scheme and Measures.

Table 37: Description of the possible gear attribute codes

Code	EN_Description
ME	Mesh size
MT	Model of trawl ³⁸ e.g. side: OTB-1, OTM-1; stern: OTB-2, OTM-2
GM	Gear dimension by length or width of the gear - in metres: <ul style="list-style-type: none"> • length of beams • trawl – perimeter of opening • seine nets – overall length • purse seine – length • purse seine – one boat operated – length • width of dredges • gill nets – length
GN	Gear dimension by number: for example <ul style="list-style-type: none"> • number of trawls • number of beams • number of dredges • number of pots • number of hooks
HE	Height
NI	Number of lines
NN	Number of nets in the fleet
NL	Nominal length of one net in a fleet
QG	Quantity of gear on board
GD	Gear description
DA	Devices and attachments ³⁹
GO	Gear bar dimension

³⁸ According to FAO International Standard Statistical Classification of Fishing Gear (ISSCFG). Coordinating Working Party on Fishery Statistics (CWP) Handbook of Fishery Statistical Standards, Section M: FISHING GEAR CLASSIFICATION (rev 1, 2013). MDR code list GEAR_TYPE contains a mapping from the previous to new version of this classification.

³⁹ Included in appendix II to Annex II - B Main Categories of Devices and Attachments

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Table 38: The use of gear characteristics

GE ⁴⁰	Description	ME	GO	GM	HE	NL	GN	NI	NN	QG	MT	GD	DA
	Unit >	Measure (MMT)		Measure (MTR)			Quantity				Text		Code
SURROUNDING NETS													
PS	Purse seines												
<i>PS1⁴¹</i>	- one boat operated purse seines												
<i>PS2⁴¹</i>	- two boats operated purse seines												
LA	Surrounding nets without purse lines												
SUX	Surrounding nets (nei)												
SEINES													
SB	Beach seines												
SV	Boat seines												
<i>SDN⁴¹</i>	- Danish seines												
<i>SSC⁴¹</i>	- Scottish seines												
<i>SPR⁴¹</i>	- pair seines												
SX	Seine nets (nei)												
TRAWLS													
TBB	Beam trawls						X						
OTB	Single boat bottom otter trawls						X						
<i>OT⁴¹</i>	Otter trawls (nei)						X						
OTT	Twin bottom otter trawls						X						
OTP	Multiple bottom otter trawls						X						
PTB	Bottom pair trawls						X						
<i>PT⁴¹</i>	Pair trawls (nei)						X						
TB	Bottom trawls (nei)						X						
<i>TBN⁴¹</i>	Bottom trawls nephrops trawls						X						
<i>TBS⁴¹</i>	Bottom trawls shrimp trawls						X						
<i>PUK</i>	Bottom trawls - electric beam trawls (Pulse Beam)						X						
<i>PUL</i>	Bottom trawls - electric sumwing trawls (Pulse Wing)						X						
OTM	Single boat midwater otter trawls	X					X						
PTM	Midwater pair trawls	X					X						
TM	Midwater trawls (nei)	X					X						
<i>TMS⁴¹</i>	Midwater shrimp trawls						X						
TSP	Semipelagic trawls	X					X						
TX	Trawls (nei)						X						

⁴⁰ Gear type as defined in MDR code list GEAR_TYPE

⁴¹ Code from ISSGFC 1980, kept in GEAR_TYPE code list in MDR for backward compatibility with legacy systems.

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GE	Description	ME	GO	GM	HE	NL	GN	NI	NN	QG	MT	GD	DA
	Unit >	Measure (MMT)		Measure (MTR)			Quantity				Text		Code
DREDGES													
DRB	Towed dredges						X						
DRH	Hand dredges						X						
DRM	Mechanized dredges						X						
DRX	Dredges (nei)						X						
LIFT NETS													
LNP	Portable lift nets												
LNB	Boat-operated lift nets												
LNS	Shore-operated stationary lift nets												
LN	Lift nets (nei)												
FALLING GEAR													
FCN	Cast nets												
FCO	Cover pots/Lantern nets												
FG	Falling gear (nei)												
GILLNETS AND ENTANGLING NETS													
GNS	Set gillnets (anchored)			X									
GND	Drift gillnets			X									
GNC	Encircling gillnets			X									
GNF	Fixed gillnets (on stakes)			X									
GTR	Trammel nets			X									
GTN	Combined gillnets-trammel nets			X									
GEN	Gillnets and entangling nets (nei)			X									
GN ⁴¹	Gillnets (nei)			X									
TRAPS													
FPN	Stationary uncovered pound nets												
FPO	Pots						X						
FYK	Fyke nets												
FSN	Stow nets												
FWR	Barriers, fences, weirs, etc.												
FAR	Aerial traps												
FIX	Traps (nei)												
HOOKS AND LINES													
LHP	Handlines and hand-operated pole-and-lines						X						
LHM	Mechanized lines and pole-and-lines						X						
LLS	Set longlines						X						
LLD	Drifting longlines						X						
LL	Longlines (nei)						X						
LVT	Vertical lines						X						

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LTL	Trolling lines						X						
LX	Hooks and lines (nei)						X						
GE	Description	ME	GO	GM	HE	NL	GN	NI	NN	QG	MT	GD	DA
	Unit >	Measure (MMT)	Measure (MTR)			Quantity			Text	Code			
MISCELLANEOUS GEAR													
HAR	Harpoons												
MHI	Hand implements (Wrenching gear, Clamps, Tongs, Rakes, Spears)												
MPM	Pumps												
MEL	Electric fishing												
MPN	Pushnets												
MSP	Scoopnets												
MDR	Drive-in nets												
MDV	Diving												
MIS	Gear nei												
<i>HMX⁴¹</i>	Harvesting machines (nei)												
<i>RG⁴¹</i>	Recreational fishing gear												
GEAR NOT KNOWN													
NK	Gear not known												

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Recommendation 17 : 2021

Recommendation on Amending Recommendation 02 : 2011, to remove the species mackerel, blue whiting and horse mackerel with stock code XXX from Annex IV – Species List in Recommendation 2:2011 Monthly Statistics (as amended by Recommendations 13:2016, 17:2015, 14:2013 and 23:2020)

As proposed by the Working Group on Statistics, the Commission hereby adopts the following recommendation pursuant to Article 9.1 and 9.2 of the Convention:

**Recommendation 2:2011 shall be amended to read as follows:
(amendments are shown in track changes)**

Recommendation 02: 2011

THE NORTH EAST ATLANTIC FISHERIES COMMISSION AT ITS ANNUAL MEETING IN NOVEMBER 2012 ADOPTED, IN ACCORDANCE WITH ARTICLES 9.1 AND 9.2 OF THE CONVENTION, A RECOMMENDATION AMENDING RECOMMENDATION 2:2011 PROVIDING FOR THE COLLECTION OF STATISTICAL INFORMATION RELATING TO FISHERIES BEYOND AND UNDER THE FISHERIES JURISDICTION OF CONTRACTING PARTIES

Recognising the need to establish a more efficient reporting system for uptakes of quotas from resources regulated by NEAFC the Contracting Parties have agreed the following measures:

1. Each Contracting Party shall, within 30 days following the calendar month in which the catches were landed, or transhipped, report to the Secretary, in computer readable format, provisional monthly statistics of catches from stocks listed in Annex I and species listed in Annex IV, whether the catch is taken in international waters or in waters under the jurisdiction of the Contracting Parties. For stocks listed in Annex I, the reporting shall include all catches that are determined by the relevant Contracting Party to be from the stock subject to NEAFC management measures. For species listed in Annex IV, the reporting shall include all catches that are determined by the relevant Contracting Party as not from the stock that is subject to NEAFC management measures.
2. These reports shall be made in accordance with the specifications and format set out in Annexes II and III, whether or not that Party has quota allocations for the stocks from which catches were obtained.
3. The Secretary shall, within 10 days following the monthly deadline for receipt of the provisional catch statistics, collate the information received and circulate it to the

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Contracting Parties. Annual catch data shall be submitted not later than 1 July of the following year.

ANNEX I

Stock units

Stock units	Stock code	NEAFC stock – common name	Species		
			Common name	FAO code	Scientific name
Norwegian spring spawning herring	XHE	Norwegian spring spawning herring (Atlanto Scandian)	Herring	HER	<i>Clupea harengus</i>
Blue whiting combined stock Sub Area I-IX, XII, XIV	XWH	Blue whiting	Blue whiting	WHB	<i>Micromesistius poutassou</i>
North East Atlantic Mackerel	XMA	Mackerel	Mackerel	MAC	<i>Scomber scombrus</i>
Rockall haddock	XHA	Haddock	Haddock	HAD	<i>Melanogrammus aeglefinus</i>
Pelagic redfish in the Irminger Sea	XIS	Redfish	Redfish	REB	<i>Sebastes mentella</i>
Pelagic redfish Sub Areas I, II	XNS	Redfish	Redfish	REB	<i>Sebastes mentella</i>
Deep Sea Fisheries	XDS	Deep-sea species	Baird's smoothhead	ALC	<i>Alepocehalus bairdi</i>
Deep Sea Fisheries	XDS	Deep-sea species	Risso's smoothhead	PHO	<i>Alepocephalus rostratus</i>
Deep Sea Fisheries	XDS	Deep-sea species	Blue antimora (Blue hake)	ANT	<i>Antimora rostrata</i>
Deep Sea Fisheries	XDS	Deep-sea species	Black scabbardfish	BSF	<i>Aphanopus carbo</i>
Deep Sea Fisheries	XDS	Deep-sea species	Iceland catshark	API	<i>Apristuris spp.</i>
Deep Sea Fisheries	XDS	Deep-sea species	Argentines	ARG	<i>Argentinaspp.</i>
Deep Sea Fisheries	XDS	Deep-sea species	Greater argentine	ARU	<i>Argentina silus</i>
Deep Sea Fisheries	XDS	Deep-sea species	Alfonsinos	ALF	<i>Berys spp.</i>
Deep Sea Fisheries	XDS	Deep-sea species	Tusk	USK	<i>Brosme bosme</i>
Deep Sea Fisheries	XDS	Deep-sea species	Gulper shark	GUP	<i>Centrophorus granulosus</i>
Deep Sea Fisheries	XDS	Deep-sea species	Leafscale gulper shark	GUQ	<i>Centrophorus squamosus</i>

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Deep Sea Fisheries	XDS	Deep-sea species	Black dogfish	CFB	<i>Centoscyllium fabricii</i>
Deep Sea Fisheries	XDS	Deep-sea species	Portuguese dogfish	CYO	<i>Centroscymnus coeloepis</i>
Deep Sea Fisheries	XDS	Deep-sea species	Longnose velvet dogfish	CYP	<i>Centroscymnus crepidater</i>
Deep Sea Fisheries	XDS	Deep-sea species	Deep-water red crab	KEF	<i>Chacon (geyron) affinis</i>
Deep Sea Fisheries	XDS	Deep-sea species	Rabbit fish (Rattail)	CMO	<i>Chimaera monstrosa</i>
Deep Sea Fisheries	XDS	Deep-sea species	Frilled shark	HXC	<i>Chalamydoselachus anguineus</i>
Deep Sea Fisheries	XDS	Deep-sea species	Conger eel	COE	<i>Conger conger</i>
Deep Sea Fisheries	XDS	Deep-sea species	Roundnose grenadier	RNG	<i>Coryphaenoides rupestris</i>
Deep Sea Fisheries	XDS	Deep-sea species	Kitefin shark	SCK	<i>Dalatias licha</i>
Deep Sea Fisheries	XDS	Deep-sea species	Birdbeak dogfish	DCA	<i>Deania calceus</i>
Deep Sea Fisheries	XDS	Deep-sea species	Black (Deep-water) cardinal fish	EPI	<i>Epigonus telescopus</i>
Deep Sea Fisheries	XDS	Deep-sea species	Latern sharks	SHL	<i>Etmopterus spp.</i>
Deep Sea Fisheries	XDS	Deep-sea species	Greater lantern shark	ETR	<i>Etmopterus princeps</i>
Deep Sea Fisheries	XDS	Deep-sea species	Velvet belly	ETX	<i>Etmopterus spinax</i>
Deep Sea Fisheries	XDS	Deep-sea species	Blackmouth dogfish	SHO	<i>Galeus melastomus</i>
Deep Sea Fisheries	XDS	Deep-sea species	Mouse catshark	GAM	<i>Galeus murinus</i>
Deep Sea Fisheries	XDS	Deep-sea species	Bluemouth (Blue mouth redfish)	BRF	<i>Helicolenus dactylopterus</i>
Deep Sea Fisheries	XDS	Deep-sea species	Blondnose six-gilled shark	SBL	<i>Hexanchus griseus</i>
Deep Sea Fisheries	XDS	Deep-sea species	Orange roughy	ORY	<i>Hoplostethus atlanticus</i>
Deep Sea Fisheries	XDS	Deep-sea species	Silver roughy (Pink)	HPR	<i>Hoplostethus mediterraneus</i>
Deep Sea Fisheries	XDS	Deep-sea species	Large- eyed rabbit fish (Ratfish)	CYH	<i>Hydrolagus mirabilis</i>
Deep Sea Fisheries	XDS	Deep-sea species	Silver scabbard fish (Cutless fish)	SFS	<i>Lepidopus caudatus</i>
Deep Sea Fisheries	XDS	Deep-sea species	Eelpout	ELP	<i>Zoarces viviparus</i>
Deep Sea Fisheries	XDS	Deep-sea species	Greater eelpout	LXK	<i>Lycodes esmarkii</i>
Deep Sea Fisheries	XDS	Deep-sea species	Roughhead grenadier (Rough rattail)	RHG	<i>Marcrourus berglax</i>
Deep Sea Fisheries	XDS	Deep-sea species	Blue ling	BLI	<i>Molva dypterigia</i>
Deep Sea Fisheries	XDS	Deep-sea species	Ling	LIN	<i>Molva molva</i>
Deep Sea Fisheries	XDS	Deep-sea species	Common mora	RIB	<i>Mora moro</i>

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Deep Sea Fisheries	XDS	Deep-sea species	Sailfin roughshark (Sharpback shark)	OXN	<i>Oxynotus paradoxus</i>
Deep Sea Fisheries	XDS	Deep-sea species	Red (blackspot) seabream	SBR	<i>Pagellus bogaraveo</i>
Deep Sea Fisheries	XDS	Deep-sea species	Forkbeards	FOX	<i>Phycis spp</i>
Deep Sea Fisheries	XDS	Deep-sea species	Greater forkbeards	GFB	<i>Phycis blennoides.</i>
Deep Sea Fisheries	XDS	Deep-sea species	Wreckfish	WRF	<i>Polyprion americanus</i>
Deep Sea Fisheries	XDS	Deep-sea species	Round skate	RJY	<i>Raja fyllae</i>
Deep Sea Fisheries	XDS	Deep-sea species	Arctic skate	RJG	<i>Raja hyperborean</i>
Deep Sea Fisheries	XDS	Deep-sea species	Norwegian skate	JAD	<i>Raja nidarosiensis</i>
Deep Sea Fisheries	XDS	Deep-sea species	Greenland halibut	GHL	<i>Rheinhardtius hippoglossoides</i>
Deep Sea Fisheries	XDS	Deep-sea species	Straightnose rabbitfish	RCT	<i>Rhinochimaera atlantica</i>
Deep Sea Fisheries	XDS	Deep-sea species	Knifetooth dogfish	SYR	<i>Scymnodon ringens</i>
Deep Sea Fisheries	XDS	Deep-sea species	Small redfish (Norway haddock)	SFV	<i>Sebastes viviparus</i>
Deep Sea Fisheries	XDS	Deep-sea species	Greenland shark	GSK	<i>Somniosus microcephalus</i>
Deep Sea Fisheries	XDS	Deep-sea species	Spiny (Deep-sea) Scorpionfish	TJX	<i>Trachyscorpia cristulata</i>
Porbeagle	XOS	Other Species	Porbeagle	POR	<i>Lamna nasus</i>
Spiny dogfish/Spurdog	XOS	Other Species	Spiny dogfish/Spurdog	DGS	<i>Squalus acanthias</i>
Basking Shark	XOS	Other Species	Basking Shark	BSK	<i>Cetorhinus maximus</i>

ANNEX III

Reporting elements

CP Contracting Party

XEU European Union
FRO Faroe Islands (DFG)
GRL Greenland (DFG)
ISL Iceland
GBR United Kingdom
NOR Norway
RUS Russian Federation

YM Year / Month

200901 for January 2009

SS Stock

XIS Pelagic *S. mentella* in the Irminger Sea
XNS Pelagic *S. mentella* in ICES sub-areas I and II
XMA North east Atlantic Mackerel
XHE Norwegian spring spawning Herring (Atlanto Scandian)
XWH Blue whiting combined stock
XHA Rockall Haddock
XDS Deep sea fisheries
XOS Other Species
XXX Unspecified stock

ZO Fishing grounds either international waters or EEZs

XNE NEAFC's Regulatory Area
XNW NAFO's Regulatory Area
XNW-GRL Greenland's EEZ within NAFO Convention Area
XEU European Union EEZs
XSV Svalbard
XJM Jan Mayen
FRO Faroe Islands EEZ
GRL Greenland EEZ
ISL Iceland EEZ
NOR Norway EEZ
RUS Russian Federation EEZ
GBR United Kingdom EEZ

CA Monthly catch

Quantity in metric tonnes of catch landed or transhipped in the relevant month.
No decimals, rounded up.

CC Cumulative catch

Quantity in metric tonnes of cumulative catch up to and including the relevant month.
No decimals, rounded up.

Annex IV

Species list

Stock code	NEAFC – common name	Species		
		Common name	FAO code	Scientific name
XXX	Herring	Atlantic herring	HER	<i>Clupea harengus</i>
XXX	Blue whiting	Blue whiting	WHB	<i>Micromesistius poutassou</i>
XXX	Mackerel	Atlantic mackerel	MAC	<i>Scomber scombrus</i>
XXX	Redfish	Beaked redfish	REB	<i>Sebastes mentella</i>
XXX	Redfish	Redfish (unspecified)	RED	<i>Sebastes spp</i>
XXX	Redfish	Golden redfish	REG	<i>Sebastes marinus</i>
XXX	Horse mackerel	Horse mackerel	HOM	<i>Trachurus trachurus</i>

Recommendation on marine pollution by garbage

As proposed by Permanent Committee on Monitoring and Compliance (PECMAC), the Commission hereby adopts the following recommendation pursuant to Article 8 of the Convention:

PECMAC proposes that Article 7b be revised, to include a general prohibition of discharging garbage at sea:

Article 7b – Garbage at Sea and retrieval of lost gear

1. Each Contracting Party shall require that its fishing vessels do not deliberately abandon or discard fishing gear and prohibit them from discharging garbage into the sea, in accordance with MARPOL Annex V on Regulations for the Prevention of Pollution by Garbage from Ships.
2. Fishing vessels shall have equipment on board to retrieve its gear, if that gear is lost.
3. A vessel that has lost gear shall attempt to retrieve it as soon as possible.
4. If the lost gear cannot be retrieved the master of the vessel shall notify the competent authorities of its flag State within 24 hours of the following:
 - a) the name and call sign of the vessel;
 - b) the type and quantity of lost gear;
 - c) the time when the gear was lost;
 - d) the position where the gear was lost;
 - e) if the vessel has tried to retrieve the gear.

The Contracting Party shall without delay notify the Secretary of NEAFC of the information referred to in a-e. The Secretary shall without delay put this information on the secure part of the NEAFC website.

5. Contracting Parties shall on a regular basis undertake to retrieve lost fixed gears. If gear is retrieved that has not been reported as lost, the Contracting Party that retrieved the gear may recover the cost from the master of the vessel that has lost the gear.

Recommendation to amend the Rules of Procedure on observers

As proposed by Working Group Future of NEAFC, the Commission hereby adopts the Rules of Procedure below pursuant to Article 3.10 of the Convention.

The NEAFC Rules of Procedure shall be amended to read as follows (amendments are shown in track changes):

Rules of Procedure

Rules of Procedure of the North East Atlantic Fisheries Commission (NEAFC) adopted at the 32nd Annual Meeting, November 2013

Chapter 1 - Representation

1. Each Contracting Party shall appoint to the Commission its representative, and shall also appoint an alternate representative, who shall represent the Contracting Party at meetings of the Commission, unless a Contracting Party notifies the Secretary otherwise. They shall have primary responsibility for liaison with the Secretary between meetings.
2. For meetings of the Commission, the representative(s) may be accompanied by experts and advisers. Contracting Parties shall inform the Secretary of the names of their experts and advisers expected to attend each meeting, in advance of the meeting.
3. The Commission may invite any Government or organisation to be represented at its meetings by observer delegations, pursuant to Chapter 7 of these Rules of Procedure.

Chapter 2 - President and Vice-President

4. The Commission shall elect a President and a Vice-President.
5. The President shall be elected from among the Contracting Parties for a term of two years and shall be eligible for re-election, but shall not serve more than two terms in succession. A representative of a Contracting Party who is elected President shall no longer represent that Contracting Party.

6. The term of office of the incumbent President terminates at the end of the year in which the successor is elected. The term of office of the new President shall start on 1 January of the following year.
7. In the event of the office of President falling vacant, the Commission shall elect a new President at its earliest opportunity.
8. The President shall have the following powers and responsibilities:
 - a. convene meetings of the Commission in accordance with Article 3(6) of the Convention;
 - b. determine a provisional agenda for meetings of the Commission after consultation with Contracting Parties, including any item proposed by a Contracting Party provided an explanatory memorandum is submitted for each item;
 - c. preside at meetings of the Commission;
 - d. open and close meetings of the Commission;
 - e. make rulings on points of order raised at meetings of the Commission, provided that each Contracting Party retains the right to request that any such ruling be submitted to the Commission for a decision;
 - f. make rulings as to the interpretation or application of any of these Rules of Procedure, provided that each Contracting Party retains the right to request that any such ruling be submitted to the Commission for a decision;
 - g. call for and announce the results of votes at meetings of the Commission;
 - h. to oversee the finalisation of a report of the proceeding of each meeting of the Commission; and
 - i. exercise such powers and responsibilities as provided in these Rules of Procedure and make such decisions and give such directions to the Secretary as will ensure that the business of the Commission is carried out effectively and in accordance with its decisions.
9. The Vice-President shall be elected from among the Contracting Parties for a term of two years and shall be eligible for re-election. The Vice-President shall remain in office until the end of the year in which his or her successor is elected but may resign at any time. In the event of an office of Vice-President falling vacant, the Commission shall elect a new Vice-President at the next meeting. In the event of the office of

President falling vacant the Vice-President shall act as President until a new President is elected; he or she shall also act as President whenever the President is unable to act. A Vice-President who is a member of a delegation shall not act in that capacity while he or she is acting as President; the Contracting Party of which he or she is a representative shall during any such period appoint another person to represent it in his or her place.

10. The same Contracting Party shall not provide the President and the Vice-President.

Chapter 3 - Meetings

11. At each meeting of the Commission, a decision on the place and time for the next meeting shall be made in accordance with Article 3(6) of the Convention.

12. Attendance by two-thirds of the Contracting Parties shall constitute a quorum for opening a meeting of the Commission.

13. Except with the unanimous agreement of all the Contracting Parties, no item of business which involves the recommendation of measures under Articles 5, 6, 7, or 8 of the Convention or the amendment of the Rules of Procedure or other standing rules, shall be the subject of a decision by the Commission, unless the subject matter has been included in the provisional agenda for the meeting.

14. The official language of the Commission shall be English. Reports of meetings of the Commission shall be transmitted to the Contracting Parties in English.

Chapter 4 – Secretary

15. The Commission shall appoint a Secretary for a term of four years, who shall be eligible for re-appointment for one further term. The Secretary shall, on behalf of the Commission, appoint other members of staff as deemed necessary.

16. The Secretary shall be the executive officer of the Commission and shall have the following functions:

- a. the management of the Commission's office;
- b. transmitting recommendations and other decisions adopted by the Commission without undue delay after each meeting of the Commission to Contracting Parties and observers;

- c. transmitting the draft report of each meeting of the Commission to Contracting Parties and observers, as soon as possible and no later than two weeks after the closing of the meeting;
- d. notifying Contracting Parties of any objections to, withdrawals from or terminations of recommendations and of the entry into force of any recommendations or agreement between Contracting Parties to give effect to a recommendation;
- e. communicating to Contracting Parties any information submitted to the Secretary pursuant to Article 16 of the Convention;
- f. preparing draft budgets and draft budget estimates, calculating and notifying Contracting Parties of contributions due, and for the receipt and disbursement of all monies received by the Commission in accordance with the rules adopted by the Commission for the conduct of its financial affairs;
- g. preparing a draft provisional agenda in consultation with the President, after which it shall be communicated to the Contracting Parties in time for them to be able to make comments and suggest amendments before the President determines the provisional agenda;
- h. communicating to all Contracting Parties and invited observers the provisional agenda determined by the President, no later than 60 days before the opening of the meeting;
- i. notifying Contracting Parties of any proposed amendments to the Convention;
- j. providing secretarial services for all meetings of the Commission and of its Committees and other subsidiary bodies;
- k. acting as directed by the President, in accordance with Rule 8(i), to ensure that the business of the Commission is carried out effectively and in accordance with its decisions; and
- l. performing such other functions as may be assigned by the Commission.

Chapter 5 – Committees and other subsidiary bodies

17. Pursuant to Article 3(8) of the Convention, the Commission shall establish, *inter alia*, the following Committees:

- a. Finance and Administration Committee;
- b. Permanent Committee on Control and Enforcement; and

c. Permanent Committee on Management and Science.

18. The terms of reference of all Committees and other subsidiary bodies shall be determined by the Commission. In the case of the Finance and Administration Committee the terms of reference shall be determined in the Financial Rules.
19. Each Committee shall elect a Chair and a Vice-Chair.
20. The relevant provisions of these Rules of Procedure apply, *mutatis mutandis*, to Committees and other subsidiary bodies, unless they adopt their own rules of procedure.
21. Reports of the meetings, including relevant proposals, of Committees and other subsidiary bodies shall be made available to the Commission.

Chapter 6 - Decision Making

22. The Commission shall endeavour to make decisions on the basis of consensus. In cases where the Contracting Parties are unable to reach consensus, a decision shall be made through voting, in accordance with Article 3(9) of the Convention. Attendance by two-thirds of the Contracting Parties shall constitute a quorum for making decisions.
23. The Commission shall only consider proposals by:
 - a. one or more Contracting Parties; or
 - b. a Committee or other subsidiary body set up in accordance with Article 3(8) of the Convention.
24. A proposal agreed by consensus by a Committee or other subsidiary body shall be considered as constituting a proposal made jointly by all Contracting Parties, for the purposes of Articles 6 and 8.2 of the Convention.
25. Any proposed amendment to an existing proposal before the Commission shall be voted on prior to voting on the initial proposal.
26. Where any proposal before the Commission can be divided into separate parts, the President may, with the agreement of the majority of the Contracting Parties present, put each part to the vote separately.
27. Votes shall be taken by a show of hands, by a roll call in the English alphabetical order of the names of the Contracting Parties, or by a ballot, as determined by the Commission. The President shall call for votes where required and announce their results to the Commission.
28. Where a proposal requiring a decision of the Commission is made between meetings of the Commission, the decision shall be made

through written communication. The Secretary shall without undue delay communicate to all Contracting Parties the proposal and the closing date of a 30-day period that Contracting Parties have to reply. The Secretary shall ensure that the communication has been received by all Contracting Parties. The response from each Contracting Party shall be communicated to the Secretary and shall include a notification as to whether it votes in favour of the proposal, votes against the proposal or abstains. The Secretary shall immediately communicate the outcome of this decision-making process to all Contracting Parties, initiating, if relevant, the objection period as set out in Article 12 of the Convention. If a Contracting Party fails to respond within the 30-day period, it will be recorded as having abstained and be considered part of the relevant quorum for decision-making.

Chapter 7 – Observers

States and Intergovernmental Organisations

29. The Secretary shall invite to attend plenary meetings of the Commission, as observers, the following:

- a. States that have been granted the status of co-operating non-Contracting Parties pursuant to the Scheme of Control and Enforcement;
- b. States whose vessels have been identified as engaging in fishing activities in the Regulatory Area, or where appropriate the Convention Area;
- c. States which seek to attend as observers, as the work of NEAFC is of interest to them; and
- d. intergovernmental organisations whose work is of interest to NEAFC or *vice versa*.

~~The Commission may allow some or all of them to participate in other meetings.~~

Non-Governmental Organisations

30. Subject to the conditions established under this Chapter, non-governmental organisations (NGOs) ~~which~~ including environmental organisations and fishing industry organisations that support ~~the objective of the Convention,~~ ~~have a demonstrated interest in the fulfilment of~~ the objective of the Convention and are in good standing, shall be eligible to participate as observers in all plenary meetings of the Commission.

~~31.29. A total of up to two persons representing the environmental NGOs that have been given the right to participate as observers pursuant to Rule 30 shall be permitted to participate in meetings of the Permanent Committee on Management and Science (PECMAS). The relevant NGOs shall decide among themselves the persons who shall participate in the PECMAS meetings, and notify the Secretary of their decision. These persons shall have relevant knowledge of the work undertaken by PECMAS.~~

32.31. Any NGO seeking to participate as an observer in a meeting of the Commission shall apply to the Secretary at least ~~100~~60 days in advance of the meeting. This application must include:

- a. a brief history of the organisation and a description of its activities;
- b. aims and purposes of the organisation and a statement that it generally supports the objective of the Convention;
- c. information on the organisation's total number of members, its decision making process and its funding;
- d. description of which aspects of the work of NEAFC where the organisation has a particular interest;
- e. representative papers and other similar resources produced by or for the organisation on the conservation, management, or science of fishery resources to which the Convention applies;
- f. observer status granted/revoked in other regional fisheries management organisations; and
- g. name, address and e-mail address of the person(s) proposed to represent the organisation.

~~33.32. The Secretary shall review~~ promptly forward to the Contracting Parties applications received within the prescribed time ~~and, at least 90 days before the meeting for which the application was received, shall notify the Contracting Parties of the names and qualifications of NGOs having fulfilled the requirements stipulated in Rules 30 and 33.~~ If one or more of the Contracting Parties object within 20 days, giving in writing ~~its~~their reasons, ~~within 30 days~~, the matter will be put to a vote by written procedure. Applications will then be considered as accepted in accordance with the procedures laid down in Article 3(9) of the Convention at least ~~30~~10 days prior to the meeting. The Secretary shall also circulate any reasons given in a preliminary objection as well as any comments that Contracting Parties may include with their vote on this matter.

33. A total of up to two persons representing the environmental NGOs and a total of up to two persons representing the fishing industry NGOs that have been admitted as observers to the previous meeting of the Commission shall be permitted to participate in meetings of the Permanent Committee on Management and Science (PECMAS). The relevant NGOs shall decide among themselves the persons who shall participate in the PECMAS meetings, and notify the Secretary of their decision. These persons shall have relevant knowledge of the work undertaken by PECMAS.

~~34. Observers admitted to a meeting of the Commission or PECMAS may:~~

General requirements for all observers

34. [Observers that have been admitted to the previous meeting of the Commission may be invited by subsidiary bodies by consensus to participate in all or part of their meetings.]

35. Notwithstanding Rule 34, if two Contracting Parties so request, particular agenda items of a subsidiary body meeting, or parts thereof, shall be limited to delegates representing Contracting Parties.

36. Observers admitted to a meeting of the Commission or a subsidiary body may:

- a. make oral statements during the meeting upon invitation of the President or the Chair of ~~PECMAS~~ a subsidiary body;
- b. distribute documents at the meetings through the Secretary; and
- c. engage in other activities as appropriate and as approved by the President or the Chair of ~~PECMAS~~ a subsidiary body.

~~35.~~37. Observers admitted to a meeting of the Commission or ~~PECMAS~~ may a subsidiary body shall not:

- a. vote;
- b. use visual or sound recording devices to record meeting proceedings;
or
- c. issue press releases or other information to the media or use social media to publish information on agenda items under discussion during any NEAFC meetings.

~~36. If two Contracting Parties so request, particular agenda items of PECMAS meetings, or parts thereof, shall be limited to delegates representing Contracting Parties.[‡]~~

~~37.~~38. If additional expenses are incurred by their participation, observers will be required to pay a fee, as determined by the Secretary.

~~38.~~39. The Secretary will determine whether, due to conference room capacity, seating limitations require that a limited number of observers may be present at any meeting. The Secretary will transmit any such determination in the conditions of participation.

~~39.~~40. All observers admitted to a meeting shall be sent or otherwise receive the same documentation generally available to Contracting Parties and their delegations, except those documents deemed confidential by a Contracting Party or the Secretary.

~~40.~~41. All observers admitted to a meeting shall comply with all rules and procedures applicable to other participants in the meeting. Failure to conform to these rules or any other rules that NEAFC may adopt for the conduct of observers may result in removal from the meeting by the presiding officer and revocation of observer status.

Chapter 8 - Dispute Settlement

41. In accordance with Articles 12 and 13 of the Convention the following procedure should be followed: A Contracting Party which presents an objection to a recommendation in accordance with Article 12 or gives notice of the termination of its acceptance of a recommendation in accordance with Article 13, shall give a statement of the reasons for its objection or notice and a declaration of its intentions following the objection or notice, including a description of any alternative conservation and management measures which the Contracting Party intends to take or has already taken.

42. In accordance with Article 18 bis of the Convention , the following procedures for the settlement of disputes are established:

- a. Contracting Parties shall co-operate in order to prevent disputes referred to in Rules (b) and (c).

~~[‡]The application of this provision of the Rules shall be assessed, and as appropriate revised, at the 38th Annual Meeting of the Commission.~~

- b. If any dispute arises between two or more Contracting Parties concerning the interpretation or application of the Convention, those Contracting Parties shall expeditiously seek to resolve the dispute by consultation, negotiation, inquiry, mediation, conciliation, arbitration, judicial settlement or other peaceful means of their own choice.
- c. Where a dispute concerns the application of the Convention or the interpretation or application of a recommendation adopted by the Commission, the parties to the dispute may refer the dispute to an *ad hoc* panel constituted in accordance with Annex 1 to these Rules of Procedure. The panel shall at the earliest possible opportunity confer with the Contracting Parties concerned and shall endeavour to resolve the dispute expeditiously.
- d. Where the parties to a dispute have agreed to refer the dispute to the *ad hoc* panel procedure, they may agree at the same time to apply provisionally the relevant recommendation adopted by the Commission until the panel finalizes its work or the dispute is resolved by the parties to the dispute, whichever occurs first. Pending the settlement of a dispute in accordance with Rule (e), the parties to the dispute shall apply provisionally any measure described by the panel. That provisional application shall cease when the parties to the dispute agree on arrangements of equivalent effect, when a judicial body to which the dispute has been referred in accordance with Rule (e) has taken a provisional or definitive decision or, in any case, at the date of expiration of the recommendation of the Commission at issue.
- e. Where a dispute is not resolved by recourse to the means set out in Rules (b) and (c), one of the parties to the dispute may refer the dispute to compulsory procedures entailing binding decisions. Such procedures shall be governed *mutatis mutandis* by the provisions relating to the settlement of disputes set out in Part XV of the United Nations Convention on the Law of the Sea of 10 December 1982 (1982 UN Convention) or, where the dispute concerns one or more straddling stocks, by the provisions set out in Part VIII of the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks of 4 August 1995 (1995 Agreement). The relevant parts of the 1982 UN Convention and the 1995 Agreement shall apply

whether or not the parties to the dispute are also Parties to these instruments.

- f. A panel or judicial body to which any dispute has been referred under this Rule shall apply, as appropriate, the relevant provisions of the Convention, of the 1982 UN Convention, of the 1995 Agreement, and other rules of international law compatible with the said instruments, as well as recommendations of the Commission which are applicable to the parties of the dispute, with a view to ensuring the conservation and optimum utilisation of the fish stocks concerned.

Annex 1 - Rules concerning the *ad hoc* panel on dispute settlement

Rules concerning the *ad hoc* panel on dispute settlement pursuant to Chapter 8 of the Rules of Procedure of the Commission

1. These rules are adopted pursuant to Article 18bis of the Convention, and Rule 42 of the Rules of Procedure of the Commission^[1].
2. Any Contracting Party shall by electronic means notify another Contracting Party of its request to refer a dispute it has with that Contracting Party to an *ad hoc* expert panel, hereafter “the Panel”, sending a copy to the Secretary. Such a notification shall be accompanied by a full description of the subject matter as well as grounds relied upon. The other Contracting Party shall promptly acknowledge the receipt of the notification.
3. The other Contracting Party shall within 15 days of receiving the notification decide on whether to agree or not to refer the dispute to the Panel. The other Contracting Party shall communicate whether it agrees or not to the Contracting Party that notified its request and to the Secretary. In the event that the other Contracting Party does not respond within 15 days it shall be regarded as not having agreed.
4. The Secretary shall promptly transmit a copy of the notification with the documents attached to it to all Contracting Parties.
5. Where another Contracting Party wishes to become a party to the dispute, it may join the process of constituting the *ad hoc* panel, unless the original parties to the dispute disagree. The Contracting Party wishing to become a party to the dispute shall notify this intention within 15 days after having received the notification contained in paragraph 4.
6. Unless the parties to the dispute agree otherwise, the following shall apply:

- a. The Panel shall consist of three members;
 - b. Each party to the dispute shall appoint one panelist and inform the Secretary of that appointment at the latest 15 days after the communication of the agreement to the constitution of the Panel by the other party;
 - c. The parties to the dispute shall appoint the third panelist by mutual agreement, and inform the Secretary of the appointment at the latest 15 days after the appointment of the two other panelists. If they are unable to agree on the appointment of the third panelist, they may agree at the latest at the end of this 15 days period that the appointment shall be made by the President of NEAFC or any other person. In case that no agreement has been found, the appointment shall be made by the President of the International Tribunal for the Law of the Sea;
 - d. The third panelist shall not be a national of any Contracting Party involved in the dispute or of the same nationality as either of the other panelists;
 - e. The panelists may be selected from a list of experts established and maintained by the Secretary on the basis of nominations made by the Contracting Parties, who may nominate up to five experts each who have competence in legal, scientific or technical aspects concerning the NEAFC Convention, and shall provide information on relevant qualifications and experience; and
 - f. The third panelist shall chair the Panel.
7. As soon as the panelists are nominated, the Secretary shall record the constitution of the Panel, and inform all Contracting Parties accordingly.
 8. The Panel may adopt such rules of procedure as it considers necessary for effective and expeditious proceedings.
 9. The Panel shall inform the Secretary of dates and venue of hearings. The Secretary shall inform all Contracting Parties accordingly.
 10. Any Contracting Party may, upon notification to the Panel, attend any hearings, and make written or oral submissions.
 11. The Panel may seek information or technical advice from any source it considers appropriate.
 12. The Panel shall seek to agree on its recommendations to resolve the dispute by consensus. If this is not possible, the Panel shall agree by a majority vote of its members, none of whom may abstain from voting.

13. Unless the parties to the dispute agree on a later date, the panel shall deliver its recommendations within ninety days from the date of its constitution.

14. The recommendations shall be confined to the subject matter of the dispute and set out the reasons on which they are based. The Secretary shall promptly communicate them to all Contracting Parties.

15. Costs of the Panel shall be borne by the parties to the dispute in equal parts.

[1] Reference is made to the objection of 31 July 2013 from the Russian Federation in relation to the amendment “a” to the Convention, which was proposed by the European Union on 24 July 2003 and adopted unanimously at the 23rd Annual Meeting of the Contracting Parties to the Convention. The effective application of this Annex is contingent upon a revocation of the above-mentioned objection from the Russian Federation of 31 July 2013.