



44th ANNUAL MEETING OF NAFO - SEPTEMBER 2022

Annual Fisheries and Compliance Review 2022 (Compliance Report for Fishing Year 2021)

1.0 Introduction

The scope of this review covers the fishing activities of NAFO-registered vessels (Article 25 of NAFO CEM) which operated in the NAFO Regulatory Area (NRA) in 2021¹ (see Figure 1.0).

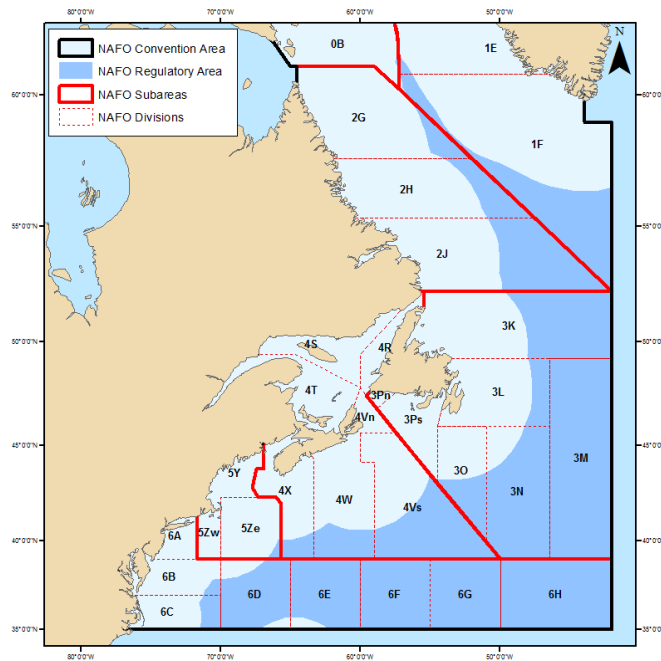


Figure 1.0. Divisions of the NAFO Convention Area and the Regulatory Area (dark blue).

This review was conducted in accordance with NAFO Rules of Procedure 5.1 and 5.2. As part of the review process, the Secretariat compiled 2021² information from the following sources: vessel

¹ According to Article 1.7 of the 2021 NAFO Conservation and Enforcement Measures (NAFO CEM), a fishing trip includes "the time from its entry into until its departure from the Regulatory Area and continues until all catch on board from the Regulatory Area is unloaded or transhipped". All article and annex numbers mentioned in this report have reference to the 2021 NAFO CEM. Quantitative information presented in this report are summarized according to 2021 calendar year, unless otherwise indicated.

² In March 2020 the World Health Organization declared Covid-19 a pandemic. The assessment of Covid-19 impact on the compliance of the Contracting Parties (CPs) is presented as an Annex to this report.



monitoring system (VMS) and hail messages delivered by the vessels (Vessel Transmitted Information - VTI), electronic logbook (haul by haul) reports, Port Inspection Reports, At-sea Inspection Reports and Reports on Dispositions of Infringements provided by the Contracting Parties, and Trip Observer Reports sent to the Secretariat.

2.0 Fisheries in the NRA

2.1 Fishing effort by gear type

NAFO traditionally identifies three main fisheries in its Regulatory Area: the groundfish (GRO - primarily in Division 3LMNO), shrimp (PRA in Division 3M) and pelagic redfish fisheries (REB - primarily in Divisions 1F and 2J). No directed fishing for pelagic redfish was conducted in 2021.

The shrimp fishery in Division 3M has been managed through an effort (in terms of fishing days) allocation scheme. In 2021, 479³ fishing days were utilized out of the total 2 640 days.

Most of the effort comes from bottom trawlers (> 500 MT), accounting for 91% of fishing effort in terms of fishing days (Table 2.1.1). The major species caught by the bottom trawlers are cod, Greenland halibut, yellowtail flounder, redfish, thorny skate and silver hake in Divisions 3LMNO (see Table 2.3.1). For longliners, the major species caught are cod and Atlantic halibut.

Table 2.1.1. *Main fishing gears and fishing effort in the NAFO Regulatory Area in 2021.*

Fishing Gear	# Fishing vessels	# Fishing trips	Fishing days in NAFO RA	Main Species (FAO 3-alpha code)	Fishing Area
Longline	5	17	169	COD, HAL	Flemish Cap (for cod); tail of the Grand Banks (for white hake and skates). Divisions 3LMNO
Bottom trawl (other than shrimp)	31	103	4247	COD, GHL, RED, SKA, YEL, HKS	Flemish Cap; Tail and Nose of the Grand Banks. Divisions 3LMNO
Shrimp trawl	6	9	479 ³	PRA	Flemish Cap. Division 3M
Total	42	129	4676		

2.2 Effort distribution by depth in demersal fisheries other than shrimp

Hourly positions of fishing vessels are required to be transmitted through the VMS. In this analysis, speeds between 0.5 and 5 knots were assumed to be fishing speeds. Figure 2.2.1 shows the distribution of fishing effort in hours of groundfish vessels is presented. About half of all groundfish effort is at depths 500 meters and shallower (longliners and trawlers catching skates, redfish and

³ NAFO Members website is source

cod). Figure 2.2.1 also shows a concentration of fishing effort around 1000 meters which can be attributed to the Greenland halibut fishery.

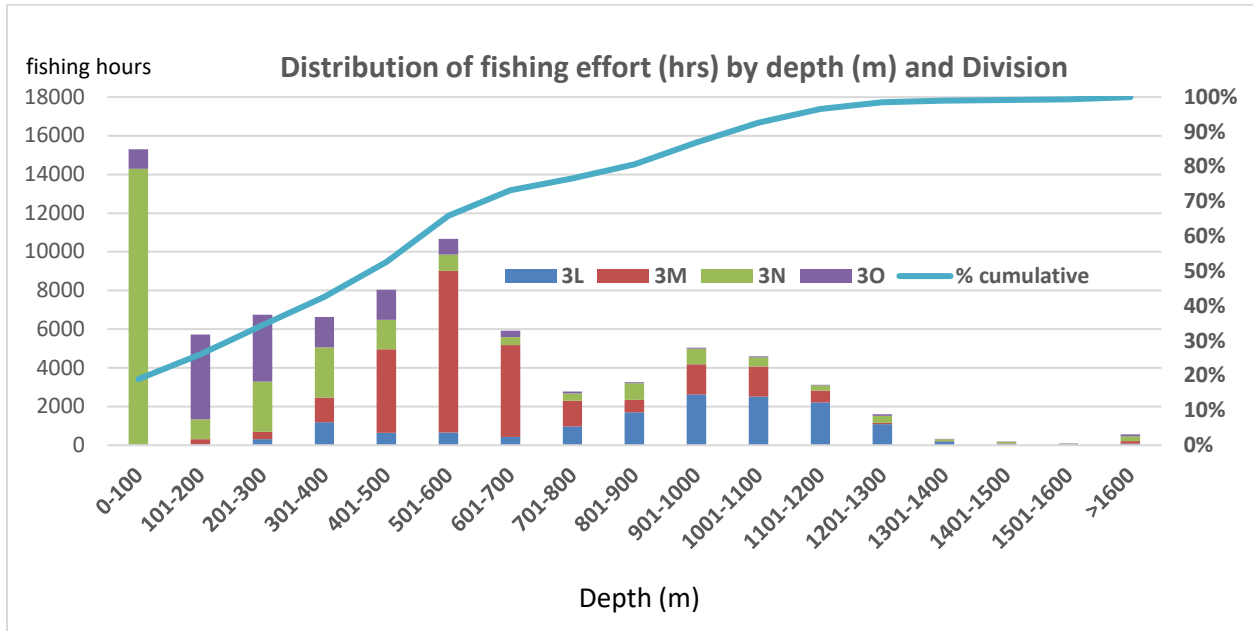


Figure 2.2.1. *Distribution of fishing effort (in hours) by depth (m) in the NRA in 2021 Vessels are assumed to be fishing at speed in the range of 0.5-5.0 knots.*

2.3 Catches in the NAFO Regulatory Area

A grand total of 71 840 t of fish (70 165.6 t retained + 1 674.9 t discarded) were caught by vessels authorized to fish in the Regulatory Area in 2021 (Tables 2.3.1). In terms of quantities caught, the stocks 3M Cod, 3LMNO Greenland halibut, 3M Redfish, 3LN Redfish, 3O Redfish, 3LNO Yellowtail flounder and 3NO Skates constitute the major groundfish fishery in the NRA.

Table 2.3.1 Total reported retained catches (in tonnes) of species (in FAO 3-alpha code) by Division in calendar 2021 (Source: CA field of CAT Reports).

Division	3L	3M	3N	3O	Total
<i>Species subject to catch limitations (as listed in Annex I of the NAFO CEM)</i>					
COD	76.0	1483.6	361.4	188.3	2109.3
GHL	6920.4	2568.1	902.9	4.0	10395.4
HKW		14.5	38.4	363.4	416.4
PLA	37.4	115.7	861.1	163.3	1177.5
PRA		5990.5			5990.5
RED	2234.5	8852.9	7589.6	5428.4	24105.4
SKA	54.1	59.3	2725.7	717.7	3557.0
SQI	0.5	0.2	1.2	75.4	77.4
WIT	34.8	174.4	57.3	195.4	462.0
YEL			13935.6	45.7	13981.3
<i>Selected species not listed in Annex I</i>					
ANG			5.9	26.0	31.9
CAT	2.3	4.1	1.3	0.0	7.6
GDE	7.5				7.5
GPE	3.9				3.9
HAD			2.5	13.3	15.8
HAL	57.3	51.0	402.1	123.9	634.3
HKS			528.5	6462.7	6991.1
RHG	69.3	44.2	40.6		154.1
RNG	37.7	3.6	1.3	0.8	43.5
<i>Sharks</i>					
[None]					
MZZ		3.6	0.2	0.0	3.9
TOTAL	9535.8	19365.8	27455.6	13808.3	70165.6

Table 2.3.2 Total reported rejected catches (in tonnes) of species (in FAO 3-alpha code) by Division in calendar year 2021 (Source: RJ field of CAT Reports).

Division	3L	3M	3N	3O	Total
<i>Species subject to catch limitations (as listed in Annex I of the NAFO CEM)</i>					
CAP			2.010	0.200	2.210
COD	0.0	5.0	3.7	0.0	8.7
GHL	1.8	2.2			4.1
HKW	1.5	0.0	4.0	5.4	10.9
PLA	0.3	1.1	14.7	2.0	18.0
PRA		20.8			20.8
RED	0.6	6.3	1.3	0.9	9.1
SKA	2.2	4.4	305.3	0.8	312.7
SQI			0.4	0.8	1.1
WIT	0.1	1.5	1.9	6.1	9.5
YEL			25.2	0.0	25.2
<i>Selected species not listed in Annex I</i>					
ANG				2.1	2.1
CAT	12.3	24.3	8.7	3.8	49.1
GDE	15.2	7.8	1.2		24.2
GPE	0.3	0.0			0.4
HAL			0.1		0.1
HKR	2.3	1.9	1.3	0.1	5.5
HKS	0.1	0.5	4.8	88.9	94.3
RHG	121.0	86.0	24.9	6.0	237.9
RNG	48.5	82.5	13.8	0.7	145.6
<i>Sharks</i>					
BSH				0.1	0.1
BSK		4.0		4.8	8.8
CFB		0.1			0.1
DGS			0.0	0.4	0.4
DGX	0.9	1.5	2.5	0.3	5.1
GSK	38.3	48.8	19.4	15.6	122.1
POR	0.1		7.5	15.1	22.7
SHX	0.3			3.4	3.7
SMA	0.2		1.7	0.7	2.5
MZZ	15.0	58.2	447.9	6.7	527.8
Total	261.2	356.8	892.3	164.7	1674.9

3.0 Inspection and Surveillance

Chapter VI of the NAFO CEM outlines the general provisions and protocol of the at-sea inspection and surveillance in the NRA. Canada and the EU deployed patrol vessels and their inspectors in the NRA. The inspectors are tasked to carry out NAFO inspection duties at sea (see Section 3.2).

3.1 Patrol Activity

In 2021, five (5) patrol vessels were deployed by the Contracting Parties with inspection presence. In all, 342 patrol-days were spent in the NRA. There were 102 days with no patrol vessel, 186 days when there was one patrol vessel, and 77 days when there was more than one patrol vessel present in the NRA. Figure 3.1 shows the time of the year the patrol vessels were present in the NRA in relation to the number of fishing vessels present.

In addition, Canada deployed surveillance aircraft, collectively flying 486 hours with 401 vessel sightings in the NRA. The European Union continued in 2021 using Remotely-Piloted Aircraft Systems deployed from patrol vessels. This program started in 2020. No non-Contracting Party vessel suspected of conducting IUU fishing activities was spotted.

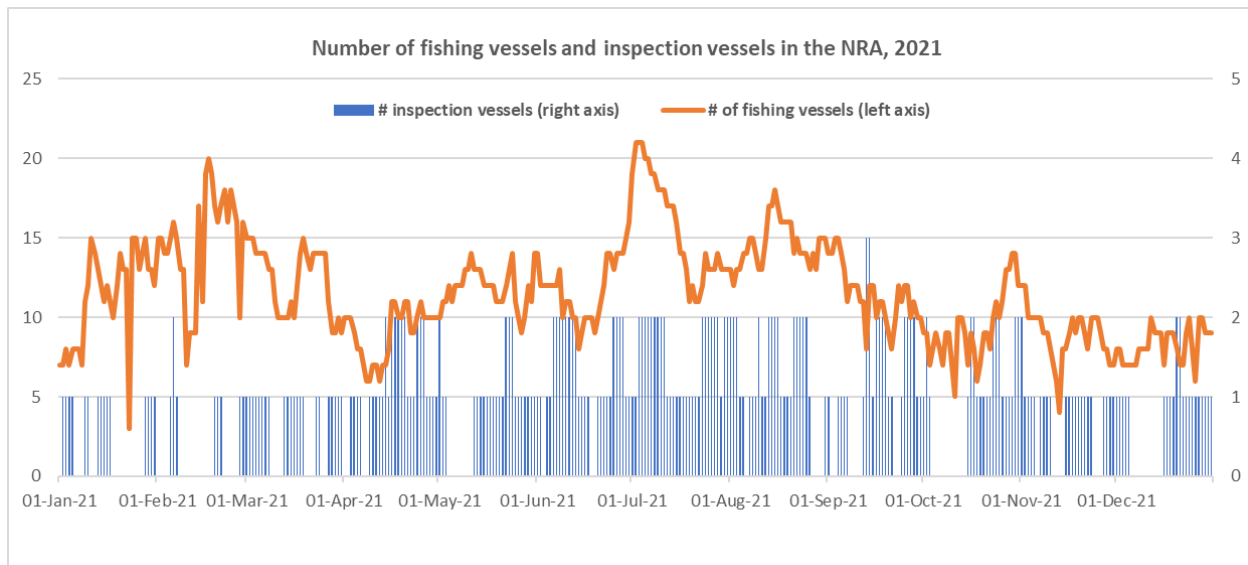


Figure 3.1 Fishing vessel and Inspection Vessel Presence in the NRA in 2021.

3.2 At-sea inspections

A total of 67 at-sea inspections were conducted. In seven (7) of these inspections at sea, eleven (11) Apparent Infringements (AIs) were detected – three (3) serious as per Article 38 definition and eight (8) non-serious AI. Five (5) vessels were issued with AI, two (2) were repeat offenders. Details of the apparent infringements and their disposition can be found in Section 4.2.

3.3 Port inspections

According to Article 43.10, the port State Contracting Party shall carry out inspections of at least 15% of all such landings or transshipments by vessels flagged to other Contracting Parties during each reporting year. Under Article 10.4(e), landings or transshipments of Greenland halibut from Divisions 3LMNO are subject to a 100% port inspection benchmarks. Landings or transshipments of cod from

Division 3M were subject to a 100% inspection benchmark in 2021 pursuant to Article 7.6. Port inspection reports relating to these obligations are documented in PSC3 form (Annex IV.C).

In evaluating compliance for 2021 with Port State Control measures outlined in Article 10 from the NAFO CEM, 57 trips with more than 2.5 t of Greenland halibut on board were identified. PSC3s were received for all these trips, therefore there is a 100% coverage as shown in Table 3.3.1.1.

Table 3.3.1.1 *Fishing trips with Greenland halibut (GHL) catch (based on Daily Catch Reports for the trip) and percent coverage of port inspections for the identified trips, by flag State.*

Flag State CP	Number of identified trips by vessels larger than 24 m: trip with GHL catch > 0	Total amount of GHL from trips identified (t)	Number of identified trips with Port Inspection (PSC3)	Port Inspection Coverage (% based on identified trips with GHL catch)
DFG (FRO)	1	210	1	100%
EU	42	6868	42	100%
JPN	4	1 253	4	100%
RUS	10	1 564	10	100%
Overall	57	10 399	57	100%

In evaluating compliance for 2021 with Port State Control measures outlined in Article 7bis from the NAFO CEM, 28 trips with more than 1.25 t of 3M Cod on board were identified. PSC3s from 27 trips were received, a 96% coverage as shown in Table 3.3.1.2. The trip without a PSC3 had 324.3 t according to the CAT reports.

Table 3.3.1.2 *Fishing trips with 3M cod catch (based on Daily Catch Reports for the trip) and percent coverage of port inspections for the identified trips, by flag State.*

Flag State CP	Number of identified trips by vessels 3M Cod catch > 1250 kg	Total amount of 3M COD from trips identified (t)	Number of identified trips with Port Inspection (PSC3)	Port Inspection Coverage (% based on identified trips with 3M Cod catch)
DFG (FRO)	2	328	1	50%
EU	23	792	23	100%
JPN	1	5	1	100%
NOR	1	139	1	100%
RUS	1	94	1	100%
Overall	27	1356	26	96%

Table 3.3.2 *The number of PSC1s and corresponding PSC3s received by the NAFO Secretariat relating to the inspection of landings or transshipments by vessels flagged to other Contracting Party.*

Port State Contracting Party	PSC1 (prior request)	Number of PSC1's with intention to land/tranship catch	PSC3 (port inspection report)	% Coverage (#PSC3 received /#PSC1)
Canada	22	16	16	100%
DFG	GRL	1	0	-
	FRO	4	4	100%
EU	5	5	5	100%
Iceland	6	5	1	20%
Norway	1	1	1	100%

In evaluating compliance with Port State Control measures outlined in Chapter VII of the NAFO CEM, a review of the submission of Port State Control Prior Request (PSC1) and Port Inspection reports (PSC3) is presented in Table 3.3.2. The minimum coverage of 15% (Article 43.10) was met by all port State Contracting Parties.

4.0 Compliance

In this section, reporting obligations, including follow-up actions to apparent infringements (AIs) are examined.

4.1 Reporting obligations

The NAFO CEM requires fishing vessels and flag State Contracting Parties (through the Fisheries Monitoring Centre - FMC) and port State Contracting Parties to provide reports on the fisheries activity within a determined time frame. Compliance of port State Contracting Parties with reporting requirements is discussed in Section 3.3.

4.1.1 Vessel Activity Reporting

4.1.1.1 Vessel Transmitted Information (VTI) – Catch-on-Entry (COE), Daily Catch Reports (CAT), and Catch-on-Exit (COX)

The FMCs are responsible for transmitting the VTI reports to the Secretariat. The COE and COX are transmitted identifying the catches on board when entering and leaving the NRA. COE-COX information is used to estimate the fishing-days effort in a fishing trip. The CATs are daily catch (retained and rejected) quantities reported by species and by Division while on a fishing trip. CATs are used to monitor the quota uptakes by the fleet of the Contracting Parties.

In Table 4.1.1.1, the number of COE, COX, and CAT, as well as of fishing trips and fishing effort-days in the NRA, is presented. All identified 2021 fishing trips had corresponding COE and COX.

Table 4.1.1.1 *Fishing effort and VTI statistics in the NRA, 2021.*

Number of fishing trips identified	130
Fishing Days ¹	4676
Number of Daily Catch Reports (CATs) ²	4917
Number of Trips with Catch on Entry Reports (COEs) ³	179
Number of Trips with Catch on Exit Reports (COXs) ³	174

¹ Estimate based on COX-COE date of 2021 fishing year

² CATs of 2021 fishing year

³ Source is MCS website

No major technical issue was encountered in transmission and receipt of the VTI reports. All expected reports, including the Daily Catch reports (CAT), were received by the Secretariat.

The timely receipt of the CATs allowed an effective monitoring of the quota uptakes, including the attribution of catches to the right Parties of quota transfer and charter arrangement transactions.

4.1.1.2. Catch reporting on sharks

Article 28.6.g requires that all shark catches be reported at the species level, to the extent possible. When species specific reporting is not possible shark species shall be recorded as either large sharks (SHX) or dogfishes (DGX).

Greenland shark constitutes the bulk of the total shark catches by weight (see table 2.3.2). All shark catches were reported to be discarded.

4.1.1.3 Fishing logbook (haul by haul) reports

The submission of logbook data on a haul by haul (H x H) basis became mandatory in 2015 (Article 28.8.b). The fishing logbook information H x H data must be submitted to the Secretariat in the format prescribed in Annex II.N. for all hauls of the fishing trip (Article 28.8.c).

Out of the 129 fishing trips identified, H x H reports from 126 trips were received by the Secretariat. One trip reported no catch and no H x H report was expected from this trip. Thus for 2021, the H x H coverage is calculated to be 98.4 %.

4.1.1.4 Position reporting – VMS

According to Article 29, every fishing vessel operating in the NRA shall be equipped with a satellite monitoring device capable of continuous automatic transmission of position to its land-based FMC of the flag States, which in turn is transmitted to the Secretariat in real time. The transmission of position reports (POS) shall be no less frequently than once an hour.

The Secretariat can confirm that the requirement is fully complied with. Occasionally, technical problems were encountered by the fishing vessels or FMCs. During these events, the position reports were transmitted manually or queued and transmitted in bulk once the technical issues are resolved.

Technical issues were usually resolved within a few days through the coordination between the Secretariat and the FMC.

4.1.1.5 Closed areas and exploratory fisheries

As of 2021, in total 21 areas in NAFO have been closed to bottom fishing including six seamounts and 14 areas with significant concentration of coral, sponges and sea pens, one coral protection zone. The measures concerning the protection of Vulnerable Marine Ecosystems (VMEs) from bottom fishing are stipulated in Chapter II of the NAFO CEM.

Based on the VMS positions, no bottom fishing was detected within the closed areas.

4.1.1.6 Chartering arrangement

Article 26 allows chartering arrangements between two Contracting Parties: the chartering CP (with quota or fishing days allocation in the case of 3M PRA) and the flag State CP of the fishing vessel. Catches by the vessel are counted against the quota of the chartering CP.

In 2021, four (4) chartering arrangements were made: three arrangements relating to fishing days for 3M shrimp, and one arrangement relating to yellowtail founder quota in 3LNO. All arrangements were implemented.

Monitoring of the implementation of the chartering arrangements are made possible through the notifications of commencement, suspension, resumption, and termination of chartered fishing and the daily catch reports of the vessel (CAT's) where chartering catches are identified. All reported catches were within the fishing possibilities stipulated in the charter arrangement.

The submission of the required documentations (Article 26.7 and 26.8) and reporting of implementation dates (Article 26.9) were complied with by both parties of the fishing charter arrangements.

4.1.1.7 Notifications on the use of Others Quota

There were 45 notifications on the use of Others Quota in 2021 relating to vessels from 4 different Contracting Parties.

The NAFO Executive Secretary have developed a webpage within the NAFO MCS website that allows visualising the use of the different Others Quota.

4.1.1.8 Research activities associated to commercial fishing in the NRA

In 2021, two Contracting Parties notified Research Plans for commercial vessels: Canada notified 2 longliners to carry out a survey on Greenland halibut in 3NO; and DFG notified 1 longliner to carry out a survey on 3M cod. These vessels marketed their catches. One vessel voluntarily transmitted VMS. These vessels were not subjected to daily catch reports.

4.1.2 Observer Reports

Flag State Contracting Parties are required to have 100% observer coverage under Article 30.5. However, they may allow their vessels to carry an observer for less than 100%, but not less than 25% of the fishing trips conducted by its fleet (Article 30.6) upon of observer withdrawal.

In evaluating the compliance to observer trip report submission (see Article 30.14.a), trips were grouped according to the implementation of Article 30.5 or 30.6 which requires 100% or >25% coverage, respectively.

Table 4.1.2 shows the observer coverage percentage, by Contracting Parties, based on the percentage of the submission of the observer trip reports.

Table 4.1.2 *Observer coverage based on the submission of observer trip reports, 2021. Three Contracting Parties invoked Article 30.6 which requires coverage no less than 25% during 2021.*

	Number of Identified Trips	Number of Trips with Trip Observer Reports	% Coverage under Art 30.5 (100% required)
CAN [1]	36	34	94%
DFG [2]	16	0	0%
EU	59	59	100%
JPN	5	5	100%
NOR [2]	1	1	100%
RUS	10	10	100%
USA	2	2	100%

[1] Invoked Article 30.6 effective 2May-7Jun2021, two trips derogated. Coverage was above the 25% minimum.

[2] Invoked Article 30.6. Required coverage is no less than 25%. DFG's derogation was due to Covid.

In 2021, DFG did not meet the minimum 25% inspection benchmark, but this was due to COVID-related reasons. DFG did not submit the report required by article 30.6(e) containing a comparison of all relevant catch and fishing activities showing the difference between the trips where the vessel had an observer on board and those where the observer was withdrawn.

4.2 Apparent Infringements detected at-sea and at-port

In 2021, a total of eleven (11) vessels were cited with AI by inspectors at sea and port authorities. Details on the nature of the AIs and their disposition are provided in Table 4.2.

Table 4.2 *Details of Apparent Infringements (AI) detected by inspectors at-sea and by port authorities in 2021 and their disposition. AIs presented in bold were considered “serious” by the inspectors as per Article 38 definition.*

CP	AI's detected at-sea. Serious AIs in bold.	AI's detected in port (PSC3: Section E.1.B. c.)	Follow-up to AI, as reported by flag State CP
EU		Art 21.1(c) and (e) - Product labelling [11Mar2021].	Case led by Lithuania Warning issued. Case closed
EU		Art 38.1(n) - concealing, tampering or disposing of evidence; Art - Product labelling [13May2021]	Administrative proceedings led by Estonia Criminal prosecution led by Portugal Case pending
DFG		Art 27 (b), (d) and (e) - Product labelling of PRA; Art 38 (i) - Mis-recording of catches [10Mar2021].	Fined Kr. 973 832 (130 890 euros). Case Closed
EU	Art 30.15(d) - Intimidation of the Observer [20Feb2021]	Art 28.2(a) - Fishing logbook; Art 38.1(i) - Obstruction, intimidation, or interference; Art 38.1(n) - concealing or tampering of evidence; Art 27.1 and 27.2 - Product labelling [31Mar2021]	Case led by Portugal Case Pending
EU		Art 27.1(e) - Product labelling [22Jul2021].	Case led by Spain Administrative proceedings ongoing Case pending
CAN	Art 28.6(b) - catch on exit (COX): quantity of catch onboard by species upon exit from the Regulatory Area transmitted at least six (6) hours in advance of the vessel's exit [14Jun2021].		Investigation undertaken by CAN authorities determined that the required message for catches of May 25th were sent to the CAN FMC, but were sent outside of established procedures and was not processed to NAFO as a result. The vessel licence holder and master were advised that in future they must ensure all submissions are completed and submitted to CAN FMC as prescribed. Concluded (Case closed)
EU		Art 28.5.(a)(i)(1) and (3) - stowage of catch; Art 25.10(b) - Capacity Plan [14Sept2021]	Case led by Spain Administrative proceedings are ongoing A bond was set. Case pending
EU	Art 13 - Article 13.6 Gear requirements (strengthening bag with top side chafer) Article 27.1(e) when processed, all species harvested in the Regulatory Area shall be labelled in such a way that each species and product category is identifiable. All species must be labelled using respectively the following data: the product form presentation code as listed in Annex II.K. [22Jul2021]		Case led by Lithuania Sanction of 180 euros applied Case closed
EU	Art 6.3(b) and 6.4 - Exceeding 4% bycatch limit for cod in Div 30 [14Sep2021] Art 28.6(c) Misrecorded COD bycatch in Div 30, Art 28.2 (a) and 28.6(c) - Misrecorded RED catch in Div 3N; Art 38.1 (i) - mis-recording of catches [26Sept2021].		Case led by Portugal Part of the Catches were seized. Case pending
EU		Art 6.3(b) and (d) - Exceeding bycatch limits [30Oct2021]	Case led by Portugal Case pending
CAN	Art 28 - Monitoring of Catch and Production Logbook and Stowage Plan [27U12021]		Written Warning issued for Articles 28.3 and 8.5 infringements. Cod bycatch exceedance Article 6.3(b), court conviction with fine of \$2500 and forfeit of the monetary value of the excess fish caught. Concluded (Case closed)
EU	Art 28.6(c) - Mis-recoding COD and PLA bycatch in CAT in Div 30, Art 38.1 (i) Mis-recording of catches [26Sept2021]	Art 28.2(a)(b) - fishing logbook Art 28.3(a) Production logbook Art 6.2(b) and 3(b) Exceeding 3NO Cod bycatch limits [25Nov2021]	Case led by Portugal Case Pending
DFG		Art 28.6(c) - Catch reporting - Failure to report discards, Art 38.1(i) mis-recording of catches [3Sept2021]	Case Pending
DFG		Art 28.6(c) - Catch reporting - Failure to report discards, Art 38.1(i) mis-recording of catches [16Sept2021]	Case Pending

4.3 Follow-up to apparent infringements

Article 39 spells out obligations of a flag State Contracting Party that has been notified of an apparent infringement. It includes taking immediate judicial or administrative action in conformity with the national legislation of the flag State Contracting Party and ensuring that sanctions applicable in respect of infringements are proportional to severity.

Article 40 requires Contracting Parties to report on the disposition of the AIs. The legal resolution of AIs may take more than a year. Contracting Parties shall continue to list such infringements on each subsequent report until it reports the final disposition of the infringement. In Table 4.3, a summary of status of AI cases in the last five years (2017-2021) and their resolution are presented.

Table 4.3 *Resolution of citations (by at-sea inspectors and port authorities) against vessels fishing in the NRA by year in which the citations were issued (as of March 2022). A citation is an inspection report that lists one or more apparent infringement. Inspections carried out for confirming a previous citation are not included.*

Year	Number of Inspection Reports with AI citation/s	Number of Resolved Cases	Number of Pending Cases*	% Resolved
2017	7	7	0	100%
2018	7	6	1	86%
2019	5	4	1	80%
2020	10	3	7	30%
2021	14	5	9	36%

**still under investigation, litigation or appeal*

5.0 Trends and Analysis

Five-year trends (2017-2021) on effort and catch, reporting obligations of Contracting Parties and observers, compliance by fishing vessels, and at-sea inspections and AIs are presented in this section.

5.1 Effort and Catch

Table 5.1 *Fishing days, as defined by Article 1.6, by fishing gear.*

	Longline	Mid-water Trawl	Bottom trawl	Shrimp trawl	TOTAL
2017	314	0	3558	0	3872
2018	304	82	3719	0	4105
2019	321	56	4297	0	4674
2020	250	127	4224	21	4622
2021	169	0	4247	479 ⁴	4895

⁴ NAFO Members website is source

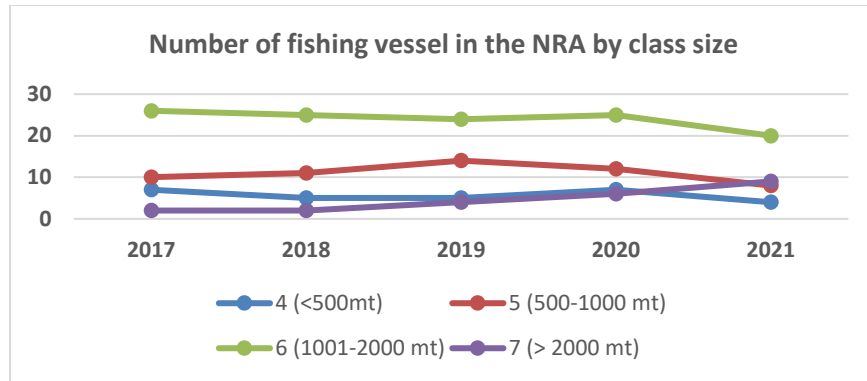


Figure 5.1.1 Number of fishing vessels in Divisions 3LMNO by class size, 2017-2021. The class sizes are based on the STATLANT classification.

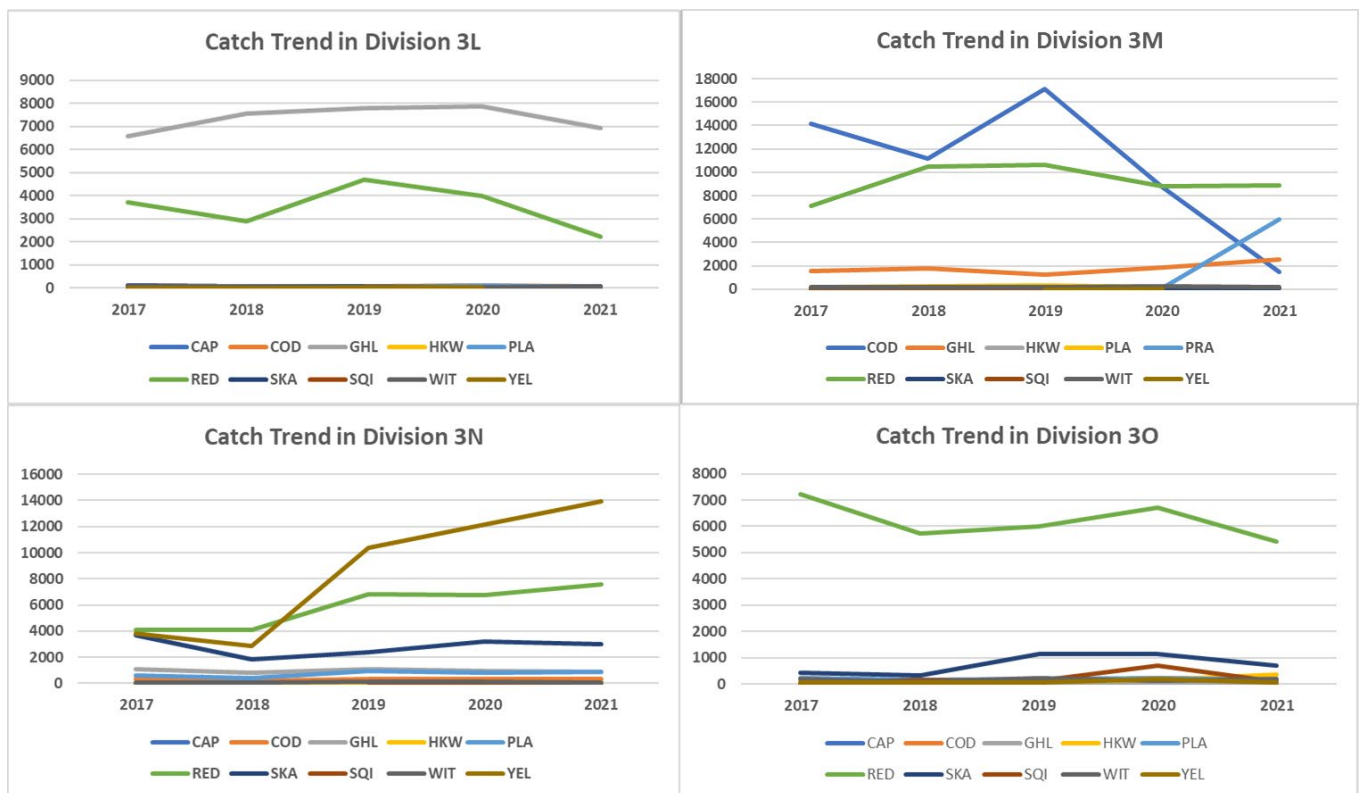


Figure 5.1.2 Catches (in tonnes) by Division of selected species managed by TAC, 2017-2021 (Source: CATs).



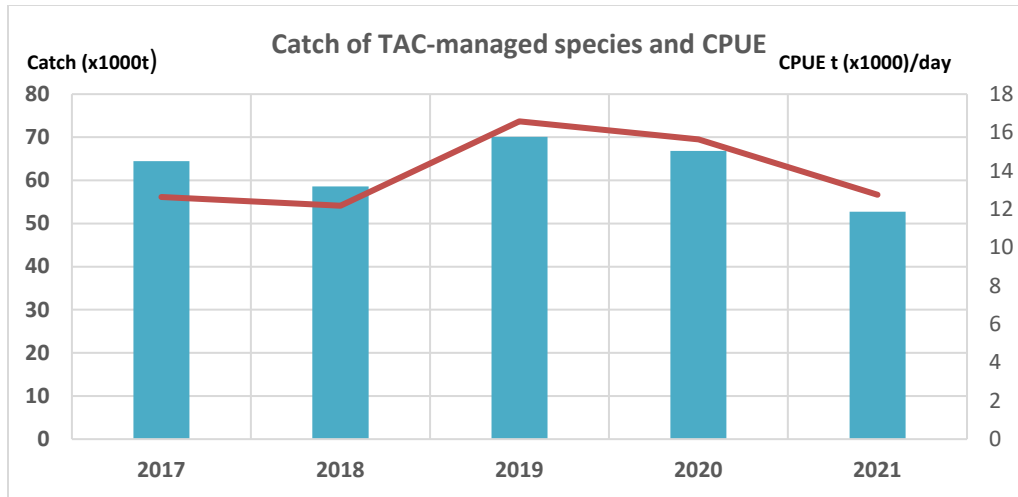


Figure 5.1.3 *Catch of TAC-managed species and CPUE in 2017 -2021, expressed in total catch of TAC-managed species per fishing day. Data Source: CATs and VMS reports.*

5.2 Reporting Obligations by Contracting Parties

Compliance to reporting obligations is quantified as a percentage coverage – the ratio of the fishing trips accounted for by the reports and of the total number of relevant fishing trips. A 100% coverage would mean that all expected reports were transmitted to the Secretariat. Figure 5.2 presents the percentage coverage of port inspections reports on vessels with Greenland halibut landings (in accordance with Article 10.4), observer reports from vessels operating under Article 30.5, and electronic fishing logbook (H x H) reports in accordance with Article 28.8.b.

Figure 5.2 shows the submission rates in the period of 2017-2021. In 2021, the submission rates of electronic logbook reports (Article 28.8.b), trip observer reports (Article 30.5), and port inspections reports (Article 10.4) are 98.4%, 100%, and 100%, respectively.

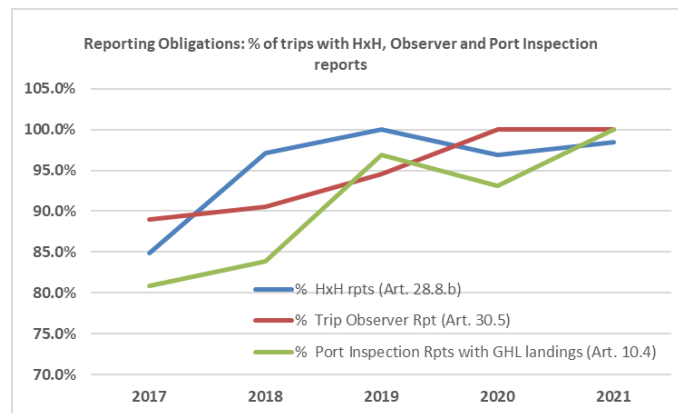


Figure 5.2 *Percentage coverage of Port Inspections reports with Greenland halibut landings reports (Article 10.4), Observer Trips Reports on fishing vessels operating under Article 30.5, and Haul by Haul reports (Article 28.8(b)), 2017-2021.*



5.3 Compliance by Fishing vessels

In the 5-year review period of 2017-2021, VMS and VTI requirements (Article 28 and 29) have been fully complied with.

Hourly position reports (POS), as well as the Daily Catch Reports by Division (CATs), were transmitted to the Secretariat while the vessels were in the NRA. The Catch-on-Entry (COE) and Catch-on-Exit (COX) reports for each fishing trip were also transmitted.

5.4 Inspections and Apparent Infringements

At-sea inspection rates, computed as a ratio of the number of at-sea inspections and the total fishing effort (fishing days), in the period 2017-2021 are presented in Figure 5.4.1. In 2021, inspection rate increased from its lowest level in 2020, from 0.9% to 1.4%, still below pre-Covid inspection rates.

With regards to AIs detected at sea and at port, mis-reporting of catches remains the most common AI (Figure 5.4.2). There is no other discernable trend with regards to the nature and frequency of the AIs.

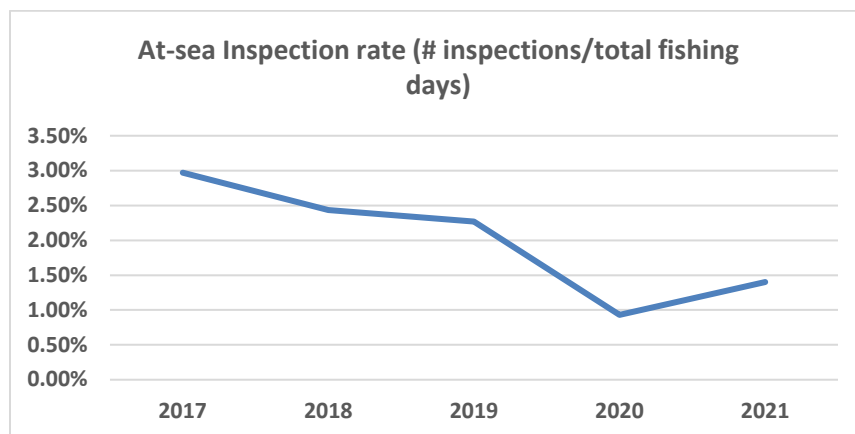


Figure 5.4.1 *Inspection rates (number of at-sea inspections/fishing days) in the NAFO Regulatory Area, 2017-2021.*

	2017	2018	2019	2020	2021
By-catch requirements	● ●			●	● ● ● ● ● ● ● ● ●
Catch communication violations					● ● ●
Directed fishing of moratorium stock	●				
Directed fishing of stock without quota allocation		●			
Evidence tampering				●	● ● ●
Fishing after date of closure					
Gear requirements - mesh size, illegal attachments	●			●	●
Greenland halibut control measures (Art. 10.4.d)				●	
Inspection protocol				● ●	●
Observer protocol				●	●
Production logbook requirements					● ●
Mis-recording of catches - inaccurate recording	● ● ● ●	● ● ● ●	● ●	● ● ●	● ● ● ● ● ●
Mis-recording of catches -stowage	● ● ●	●	● ● ● ● ● ● ● ●		● ●
Product labelling	●	● ●	● ●	● ● ● ● ●	● ● ● ● ● ● ● ●
Vessel requirements - capacity plans		● ●	●		●
Fishing without authorisation					●

Figure 5.4.2 *Frequency of apparent infringement cases detected by at-sea inspectors and port authorities in 2017-2021. Black and blue dots represent apparent infringement issued at sea and at port, respectively.*

6.0 Conclusions

During 2021, the main NAFO fisheries were demersal trawls for groundfish and for shrimp, and longlines for cod and Atlantic halibut. The total catches decreased slightly from around 73,000 tonnes in 2020 to approximately 70,000 tonnes in 2021. The total catch in 2021 included 6,991 tonnes of silver hake and 634 tonnes of Atlantic halibut.

In 2021, two Contracting Parties notified Research Plans for commercial vessels: Canada notified 2 longliners to carry out a survey on Greenland halibut in 3NO and DFG (Faroe Islands) notified 1 longliner to carry out a survey on 3M cod. One vessel voluntarily transmitted VMS. These vessels were not subjected to daily catch reports.

In 2021 no pelagic redfish fishery took place, unlike in previous years. The stock remains under moratorium with the objection of the Russian Federation. STACTIC notes that there was a fishery on this stock in 2022.

The 2021 CPUE for managed stocks, saw a notable decrease of approximately 4 tonnes a day or 25%, from 2020. The 2021 CPUE rose dramatically from 2020 in the 3M PRA fishery, with catches increasing to 6 011 tonnes over 479 fishing days versus the limited activity that occurred in 2020, which consisted of only 79 tonnes of catches over 21 fishing days.

The at-sea inspection rate increased in the last year. This rise in inspections is likely attributable to the loosening of COVID-19-related protective measures and protocols in 2020. Contracting Parties have reported fewer impacts from Covid-19 on their ability to carry out mandatory control elements under the NAFO CEM. However, one CP was unable to maintain minimum observer coverage requirement.

The continued timely receipt of the CATs has allowed effective monitoring of quota uptakes, including the attribution of catch to the correct Contracting Parties' quota transfer and charter arrangements. The timely submissions have also assisted inspection services carrying out risk assessments and conducting monitoring, control and surveillance activities on the compliance with the accurate reporting of catches taken in the NRA and other obligations under the NAFO CEM.

7.0 Recommendations

- STACTIC recommends that all Contracting Parties continue to explore and report back on the use of remote electronic monitoring and equivalent sensor technologies, with a view to incorporate these tools into the NAFO CEM, including considering the possibility to derogate from 100% observer coverage where justified, in order to further support accurate reporting of catches, as well as to assist monitoring, control and surveillance activities.
- STACTIC recommends that all Contracting Parties oversee their commercial fishing vessels temporary involved in research activities and ensure they do not use their Research Plans to circumvent the NAFO CEM.
- STACTIC highlights that all Contracting Parties need to comply with the NAFO Observer Program requirements, including ensuring the independence, safety, and appropriate training of the observers; the analysis and follow-up of the observer program data for risk assessment and inspection; the submission of the Contracting Party's reports required by the NAFO CEM, and that the level of observer coverage specified in the NAFO CEM is maintained on an annual basis.
- STACTIC recommends that all Contracting Parties timely provide to the NAFO Executive Secretariat their Annual Reports on Inspection, Surveillance and Infringements in accordance with Article 40 of NAFO CEM.
- STACTIC recommends Contracting Parties to support the NAFO Executive Secretary on the development and implementation of the NAFO Observer Application with a view to have the application fully operational by 2024.

- STACTIC encourages Contracting Parties to continue to maintain inspection presence in the NAFO RA and promote inspector exchanges on at-sea deployments, as well as the use of novel technologies for control such as Remotely Piloted Aircrafts Systems.
- STACTIC recommends Contracting Parties to reconvene port inspection exchanges with a view to identify best practices and harmonize inspection procedures.
- STACTIC recommends Contracting Parties to consider including a review of any infringement trends that have been observed.
- STACTIC recommends Contracting Parties to undertake a review of other RFMOs Compliance Committees to identify best practices that can be incorporated to the NAFO compliance review.
- STACTIC recommends Contracting Parties to participate and engage in the Inspector Workshop, for the purpose of sharing best practices and procedures and to promote international cooperation on control amongst Contracting Parties.
- STACTIC recommends Contracting Parties to find consensus and apply consistent methodologies for the verification of compliance with NAFO CEM provisions on catch recording and reporting.
- STACTIC recommends Contracting Parties to commit to follow up on all apparent infringements in a timely and consistent manner and, depending on the gravity of the offence and in accordance with domestic law, adopt sufficiently deterrent judicial or administrative actions.

Annex. Impact of Covid-19 on Contracting Parties Compliance to NAFO Conservation and Management Measures

The global pandemic caused by COVID-19 has brought significant focus on essential industries, such as fisheries, to confirm that no effort is being spared to contain the spread of the virus. As all aspects of fisheries are being scrutinized, many Contracting Parties have determined that certain activities associated with fishing can continue with modified procedures and protocols in place to ensure the health and safety of all persons involved. However, a number of countries have also determined that certain obligations could not be met in accordance with acceptable hygiene and distancing protocols, given that persons can sometimes frequent numerous vessels and ports over relatively short periods.

Since the declaration of the global pandemic on 11 March 2020, correspondence from many Contracting Parties has been circulated regarding potential means of addressing difficulties complying with the NAFO CEMs due to COVID-19.

At the 2020 Annual meeting (COM Doc. 20-14), “the Commission agreed that STACTIC should compile, make a first review of, including appropriate recommendations, and report for decision-making to the Commission on the measures undertaken by Contracting Parties via the compliance review. The Annual Compliance Report for 2020 (to be produced in 2021), when indicating non-compliances by a CP with a given obligation on control, should identify as well any difficulties directly linked to the COVID pandemic to be differentiated from any other non-compliances. This first assessment role for STACTIC does not aim at revising the decision of CP to suspend a control measure, but to differentiate the reasons for the non-compliance of a measure between COVID and non-COVID-related ones.”

The first annual review of the Covid-19 impact was undertaken in 2021 covering the 2020 fishing activities (COM Doc 21-19). The review was based on the responses to the questionnaire developed by STACTIC in May 2021 (STACTIC WP 21-12 Rev). The same questionnaire was used in this review which cover the 2021 fishing activities. Four Contracting Parties responded to the survey. Below is the summary of the responses:

What control measure(s) were suspended/impacted due to COVID-19?

One Contracting Party reported that with regard to Article 30.8 (c), the same observer was deployed in two consecutive trips in one fishing vessel because the deployment of a different observer was not practicable.

One other Contracting Party reported that the “Tasks and Power of Fisheries Observers” were impacted.

There was no other control measure identified to be impacted.

How did COVID-19 relate to the suspension/impact?

One Contracting Party reported limited deployments of observers to vessels.

What is the effective date of the suspension/impact?

One Contracting Party reported that protective protocols for inspection practices at sea were in place between 3 May and 15 June. In general, inspection procedures and the composition of the team of

inspectors remained subject to some extent to protective protocols for inspections at sea and in port during 2021.

One other Contracting Party reported that their limitations for observer deployments commenced in March 2020.

What is the reason for not being able to comply?

Only one Contracting Party reported a non-compliance with NAFO CEM obligations relating to the limitations for observer deployments due to COVID-19.

What alternative actions, if any, were implemented to mitigate the impact/duration of not complying with the measures as written?

One Contracting Party reported the alternative voluntary actions undertaken:

- Remote monitoring based on cross-check and automatic validation systems of all fisheries data have been notably improved,
- Adoption a protective protocol for inspections at sea,
- To carry out three additional deployments of patrol vessels in the NRA,
- Protective protocols for inspection in port were adopted, including procedures for the verification of landing operations,
- Same observer was deployed in consecutive trips of 1 vessel to maintain the 100% observer coverage.

The Contracting Party which reported limited deployments of observers to vessels states that there were no alternatives.

What is the terminated date?

One Contracting Party reported that protective protocols for at sea and port inspections remain in place during 2021 to some extent.

One other Contracting Party reported that their limitations for observer deployments ended in October 2021.

Additional Comments

One Contracting Party commented that in 2021 there have been cases of fishing vessels operating in the NRA with confirmed cases of COVID and cases with reported symptoms, in some instances requiring medical assistance in port and quarantine on board.

Two Contracting Parties explicitly reported that in 2021, COVID-19 did not impact their ability to comply with the NAFO CEM. No derogations were needed.