







ROP-BFT

ICCAT
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Implementation Report

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In association with



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Acronyms

CFL Curved fork length

COVID-19 Coronavirus disease 2019

CPC Contracting and Cooperating Non-contracting Parties (ICCAT)

eBCD electronic Bluefin (tuna) catch document

EU European Union

GBYP ICCAT Atlantic wide research programme for Bluefin Tuna

ICD
 ICCAT caging declaration
 ITD
 ICCAT transfer declaration
 MoU
 Memorandum of Understanding
 PNC
 Potential Non-compliance (event)

ROP-BFT ICCAT Regional Observer Programme for Bluefin Tuna

SCRS Standing Committee on Research and Statistics

SFL Straight fork length

Executive Summary

The service provider for implementing year eleven (April 2020 / March 2021) of the ICCAT ROP-BFT (hereafter the Programme) comprises of a consortium led by MRAG based in London and COFREPECHE in Paris, assisted by regional partners located around the Mediterranean. This is the eleventh year that the Consortium has been awarded the contract to implement the Programme and experience gained in previous years has been used to enhance the systems in place for recruitment, training and deployment of observers and overall performance of the Programme.

The Programme allows the Commission to assess compliance with the regulatory framework. This report summarises the 186 deployments on authorised purse seiners during the 2020 fishing season, as well as the 35 farm deployments and 5 trap deployments completed to date since the start of the current contract. In addition, 50 farm deployments are included from the previous season.

One hundred percent observer coverage has been achieved on authorised purse seiners, farms and traps within the remit of the programme, which included monitoring all fishing, transfer, caging and harvesting activities with the exception of one observer who fell ill and was unable to be replaced, and the Norwegian fleet which has not had the deployment of ROP observers permitted by the Norwegian Authorities.

This report describes the key issues and developments in implementing the Programme in year eleven in line with the requirements. These are divided into operational and technical categories and provide perspective on issues that affected the observer role during deployments. The ability of observers to estimate numbers of tuna and comparisons with official estimates during transfer and caging operations are reviewed. Potential non-compliance events recorded by observers are summarised, including both those reported for transfer and caging operations as well as for general events.

This year was heavily impacted the COVID-19 pandemic, and the effect on the programme and measures taken by the consortium in cooperation with the Secretariat and respective CPCs are reviewed.

Furthermore, the Recommendation 19-10 was introduced in 2020 and placed specific safety requirement on the mobilisation of observers. This report provides details on how the consortium implemented these requirements.

1 Introduction

This was the eleventh year that the Consortium (Service Provider) has been awarded the contract for the provision of services to implement the Programme. The Consortium adapted their approach incorporating lessons learned through implementing the Programme during previous years. The report covers key activities conducted in preparation for the Programme and deployments under the contract for services to implement the Programme for 2020/2021.

The principle role of the Service Provider remains to implement the main clauses of Para. 84 of The Recommendation relating to the implementation of a Regional Observer Programme to ensure 100% coverage of:

- Activities on purse seine vessels authorised to fish bluefin tuna;
- Transfers of bluefin tuna from traps to transport cages; and
- On farms, transfers from one farm to another, cagings, harvesting and release operations.

Specifically, as set out by Para 85, 92, 93, 98 and Annex 6, the regional observer role shall be:

- Report on any events, including of other vessels, which are potentially non-compliant with ICCAT Recommendations as soon as possible;
- Record and report on fishing and transfer activities, observe and estimate catches and verify logbook entries, and estimate tuna transferred and caged through the review of video recordings;
- Sign the ICCAT Transfer Declarations (hereafter ITD) and electronic Bluefin Catch Documentation (hereafter eBCD) when in agreement that the information is consistent with their own observations and ICCAT conservation and management measures, including a compliant video record
- and carry out scientific work as required by the Commission.

In order to achieve the above, the Service Provider has managed the recruitment, training and subsequent deployment of observers in the Mediterranean Sea and eastern Atlantic Ocean, and submission of the observer deployment outputs within 20 days of the completion of the respective period of monitoring.

Technical components of the Programme cover monitoring the fishing, transfer and caging phases of the eastern Atlantic and Mediterranean bluefin tuna fishery. Harvesting is ongoing at the time of writing for this season and is expected to continue throughout the first quarter of 2021.

The structure of the report is presented in Table 1.

Table 1: Report Content.

Implementation Activity	Section	Main Content
Programme Development and Implementation	2	Outline of development activities Summary of observer coverage on purse seiners and farms
Estimating the amount of tuna	3	Techniques used by operators and observers to estimate number of tuna for purse seine, trap and farm operations. Summary of operations.
Potential Non-Compliance Events (PNCs)	4	Summary of PNCs
Programme outputs	5	Submitting deployment outputs Submission of data covering Programme 2011-2020 to the SCRS
Scientific monitoring activities	6	Scope of biological sampling
Summary and Recommendations	7	Suite of recommendations distinguishing those which are the responsibility of the Service Provider and those of ICCAT: Improving the general operational framework Improving monitoring tasks and observer duties
Annexes	Annex	Response to COVID-19 pandemic Implementing the requirements of Rec. 19-10 Listing farm deployments PNC codes

2 Programme Development and Activities

2.1 Programme Development

Ongoing programme development comprised of the following components:

- Consultation with the ICCAT Secretariat, CPCs and SCRS on operational, technical and reporting requirements;
- Production of an updated Programme Manual and training material for approval incorporating lessons learned during implementation;
- Respond to the restrictions and requirements of the COVID-19 pandemic (more detail in Annex 1);
- Development of online training tools;
- Complete observer recruitment;
- Procure and distribute observer equipment that required replacement and purchase additional sets:
- Purchase equipment to ensure the programme meets the requirements of Recommendation 19-10 (more detail in Annex 2);
- Deliver training prior to the purse seine season; and
- Continue where feasible to encourage and facilitate the sampling, storage and delivery of samples for genetic and age analysis (more detail in section 6).

2.2 Operational

2.2.1 Deployments on Purse Seiners

During the 2020 Programme, observers were deployed on 186 purse seine vessels (Table 2). Observers were mobilised to:

- 31 ports to fishing vessels fishing in the eastern Atlantic and Mediterranean. The
 Observers designated to the Albanian vessel embarked in Italy, the observer
 designated to Cypriot vessel embarked in Cyprus; One observer designated to a
 French vessel embarked in Spain, 7 observers designated to Libyan vessels embarked
 in Malta and 7 from Tunisia.
- Eight ports to fishing vessels fishing in the eastern Mediterranean Sea and the eastern Atlantic and Mediterranean. Of these, 2 observers were transferred at sea from a transport vessel to the purse seine vessel (Syrian and Egyptian flagged) and one observer embarked a Libyan vessel from a Turkish port;
- Five ports to fishing vessels fishing in the Adriatic Sea;
- Two ports to fishing vessels fishing in waters limited to the jurisdiction of the Kingdom of Morocco: and
- Two ports to fishing vessels fishing in the Norwegian Economic Zone in 2019.

The deployments by flag State / CPC are set out in Table 2. Excluding Norway, 5,498 observer sea days were completed on 186 purse seine vessels in 2020 with 813 fishing operations and 353 transfer, voluntary control and control transfers (Figure 1). This represents an increase of 655 observer sea days relative to 2019.

Table 2: Observer coverage on purse seiners monitoring fishing and transfer operations (excluding Norway)

Flag State / CPC	Vessels (n)	Obs. Sea Days*(n)	
Albania	2	25	
Algeria	23	1,054	

Flag State / CPC	Vessels (n)	Obs. Sea Days*(n)
Egypt	1	34
EU.Croatia	17	845
EU.Cyprus	1	28
EU.Spain	6	67
EU.France	22	372
EU.Italy	19	605
EU.Malta	1	6
Libya	15	471
Morocco	2	70
Syrian Arab Republic	1	5
Tunisia	49	894
Turkey	27	1,022
Total	186	5,498

^{*} Sea days are defined as the days between the observer embarking and disembarking in port, inclusive.

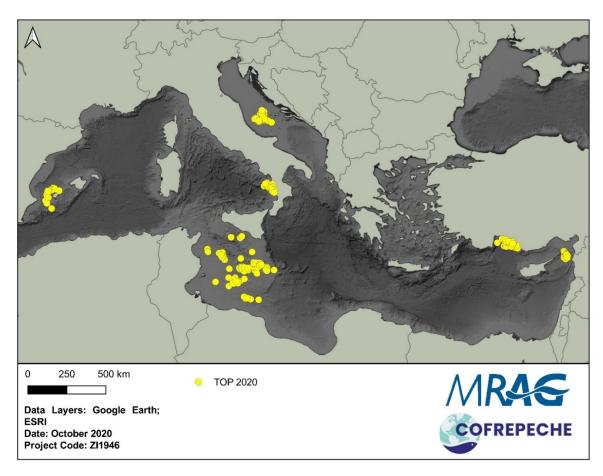


Figure 1: Distribution of transfer operations in 2020 purse seine fishing season excluding Norway.

All deployment requests were met although delays in the embarkation of observers to the Tunisian, and 7 Libyan vessels were experienced due to delays at customs of the delivery of the observer safety equipment. These delays were beyond the control of the Consortium, the Secretariat and the Tunisian fisheries authorities. A similar issue was also experienced in

Morocco although this did not cause a delay to the embarkation of the observer.

This delay in delivery to equipment to Morocco and Tunisia is likely to have resulted directly from the closure of administration offices due to COVID-19 and not being able to procure necessary documentation, although the issue of InReach communication devices for the first time, in line with the requirements of Rec. 19-10, probably also had an effect as these may have been considered sensitive at customs.

The 49 observers designated to Tunisian vessels spent 413 days awaiting equipment before being able to embark the vessel. The 7 observers designated to Libyan vessels embarking observer in Tunisia spent 65 days awaiting equipment before being able to embark the vessel.

Furthermore, the observer onboard the Maltese flagged vessel disembarked after 6 days due to illness, and was unable to be replaced due to travel restrictions in place in Malta. In accordance with the ICCAT circular 2282-20, the observer was replaced by a national inspector to act *in locum* of the Regional observer for the remainder of the fishing season totalling 21 days. Considerable difficulties were faced in mobilising observers to Malta due to no flights operating in and out of Malta, and a 14-day quarantine requirement for all arrivals to the country by sea. As such, this limited deployment to vessels operating out of Malta to those observers already based in Malta.

No observers have been deployed onto Norwegian vessels as the Norwegian Ministry of Fisheries decided it would not be permitted to have an ROP observer onboard due to the COVID-19 pandemic. Instead alternative measures were developed involving the self-reporting of activities by fishing vessels and the compilation and reporting of these activities by the consortium. While 5 of the Norwegian vessels have completed operations, the rest of the fleet is still operating and therefore the fleet overall will be excluded from the current report.

In the previous year, four observers were deployed onto four Norwegian vessels which were not included in the previous year's report and therefore will be included here. 190 observer sea days on 4 Norwegian flagged vessels were completed in 2019 (Table 3).

Table 3: Observer coverage on purse seiners monitoring fishing and transfer operations for Norway 2019

Flag State / CPC	Vessels (n)	Obs. Sea Days*(n)	
Norway (2019)	4	190	

^{*} Sea days are defined as the days between the observer embarking and disembarking in port, inclusive.

2.2.2 Deployments on Farms

The farm deployments by flag State / CPC completed with outputs submitted during the current contract year are set out in Table 4. There were 1,682 observer days completed for 35 deployment requests, over 25 different farms. Of the 35 requests, 3 started during the previous contract year. The deployment requests included in Table 4 are listed Annex 1 . For one deployment in Malta, an observer was temporarily permitted to cover caging operations on 2 farms as observers due to travel and quarantine restrictions, while for one deployment in Spain, an observer was temporarily permitted to cover caging operations on 2 farms as observers due to an emergency situation requiring immediate observer coverage.

Table 4: Observer coverage on farms during the current contract.

Farm State	Deployments requests (n)	Farms (n)	Obs. days (n)
EU.Croatia	7	4	380
EU.Spain	7	4	457

Farm State	Deployments requests (n)	Farms (n)	Obs. days (n)
EU.Malta	8	6	331
EU.Portugal	1	1	19
Morocco	2	1	149
Tunisia	3	4	215
Turkey	6	6	131
Total	35	25	1,682

Those farm deployments which occurred during the previous contract but were not completed with outputs submitted by the time of the previous report are summarised in Table 5. There were 2,360 observer days completed for 50 deployment requests, over 23 different farms. The deployment requests included in Table 5 are listed Annex 4.

Table 5 Observer coverage on farms between the previous report and commencement of the current contract

Farm State	Deployment requests (n)	Farms (n)	Obs. days (n)
EU.Croatia	5	4	253
EU.Spain	10	4	481
EU.Malta	15	5	598
EU.Portugal	1	1	73
Morocco	3	1	125
Tunisia	4	2	174
Turkey	12	6	656
Total	50	23	2,360

2.2.3 Deployments on Traps

The trap deployments by trap state are set out Table 6. There were 226 observer days completed on 5 deployment requests, over a total of 13 different traps. However, for Morocco, the trap deployments fell under a farm deployment request and therefore the number of days (149) spent by observers on Moroccan farms during that period are included above.

Table 6: Observer coverage on traps monitoring transfer operations during the current contract.

Trap state	Deployment requests (n)	Traps (n)	Obs. days (n)
EU.Italy	3	2	77
Morocco	2	11	0 (149)
Total	5	13	77 (226)

In addition, deployments Spanish and Portuguese traps involved cagings direct from the trap to the farm, and therefore are considered cagings as part of a farm deployment. For this reason, these are not included above.

3 Estimating Number and Weight of Tuna

3.1 By Operators

3.1.1 On Purse Seiners

The vessel estimates the amount of tuna for the prior transfer notification generally by use of diver visual estimates but other tools such as acoustics may also be used.

The vessel estimates for the number and weight of fish transferred are usually made using the same video record provided to the observer, although stereoscopical video footage may also be used to estimate the weight of a sample of fish. Estimation based on diver estimates may also be used to estimate weight. These may also be retrospectively amended following definitive estimates at the point of caging.

Quality of video footage has improved significantly over the years which may be in part due to increased pressure due to the increased pressure on vessel operators to provide accurate estimates in the ITD to avoid potential sanctions as numbers are cross checked upon caging. Estimates of weight of fish may be estimated using stereoscopical footage at the time of transfer, but equally, these estimates are often amended following caging operations which has 100% stereoscopical video footage coverage.

In line with paragraph 92 of Rec. 18-02 and subsequently Rec. 19-04, there is the possibility of a single voluntary control transfer in cases where 'the video record is of insufficient quality or clarity to make such estimations'. In the event of a voluntary transfer with a compliant video record, the observer is authorised to sign the ITD and no PNC was reported. Operator estimates are recorded in the eBCD, the ITD and the logbook.

3.1.2 On Traps

As with purse seine vessels, the vessel estimates the amount of tuna for the prior transfer notification generally by use of diver visual estimates.

As with purse seine vessels, the trap's estimate of the amount of fish transferred is made using the same video record provided to the observer, although stereoscopical video footage may are used more often to calculate weight. As with purse seine vessels, there is the possibility of a single voluntary control transfer in cases where 'the video record is of insufficient quality or clarity to make such estimations'.

Operator estimates are recorded in the ITD and the eBCD.

3.1.3 On Farms

3.1.3.1 **Caging**

The farm may provide two sets of estimates, the first with the caging authorisation records, and the second with the ICCAT caging declaration (ICD) and eBCD. Caging authorisation records are based on the records of estimates on the number of fish transferred. In some cases, the caging authorisations may not include estimates of the fish to be caged.

The eBCD and ICD are based on video estimates at the time of caging. The exact mechanism for this varies between and even within CPCs. Some CPCs submit an initial eBCD and ICD based on initial estimates from the regular video footage of the caging or even the initial transfer estimates. These estimates may be amended at a later date following more accurate estimates from the stereoscopical footage, including definitive estimates of the average weight. In other instances, the eBCD may not be produced until the definitive number and

weight of tuna caged is obtained from the stereoscopical video footage. While this offers the advantage of the observer being able to compare their figures with the definitive estimate, the time delay in receiving these official estimates has created problems on some deployments, particularly those of shorter duration as the observer is only able to verify these eBCDs while actively deployed.

All farm National Authorities have used stereoscopic camera systems at caging and in all cases an ICCAT caging declaration was produced in line with the requirements of ICCAT Rec. 06-07. Farm estimates are recorded in the eBCD and the ICD.

3.1.3.2 **Harvests**

Harvest estimates based on numbers of fish removed, which are weighed, usually whole on the farm or processing vessel. In some cases, fish are partially processed and later weighed as processed weight, particularly in the case of fresh harvests, on discharge in port. This processed weight then has the relevant conversion factor applied to obtain the whole weight.

3.2 By Observers

3.2.1 On Purse Seiner Operations

3.2.1.1 Fishing and Transfer Operations

Observers rely on standard video records of transfers to estimate the number of tuna transferred. In the case of landed fish or incidental mortalities, observers estimate the number of fish either landed or discarded, if possible weighing the dead fish if scales are available onboard the purse seine vessel.

Of the 345 transfers conducted, the number of fish transferred was estimated during the first transfer on 328 occasions (95%), a proportion similar to that seen in previous seasons (Table 7). Of the remaining 17, seven voluntary control transfers were carried out, of which on 6 occasions the observer could estimate the number of fish transferred. On the occasion when the observer was unable to estimate the number transferred, a control transfer was conducted, after which the observer was able to estimate the number of tuna transferred. The ITD was signed on 331 of occasions (96%).

Table 7 Observer estimations of number of BFT transferred from purse seine transfers.

Flag State	Number of fishing operations (n)	Number of Transfers (n)	Number of voluntary control transfers (n)	Number of control transfers (n)	Estimate of BFT by number possible (n)	ITD Signed (n)
Albania	4	2	0	0	2	2
Algeria	26	11	3	0	11	11
Egypt	2	2	0	0	2	2
EU.Croatia	124	84	1	0	81	81
EU.Spain	14	12	0	0	11	11
EU.France	40	30	1	1	30	30
EU.Italy	46	25	0	0	25	25
Libya	27	17	1	0	17	17
Syrian Arab Republic	1	1	0	0	1	1

Flag State	Number of fishing operations (n)	Number of Transfers (n)	Number of voluntary control transfers (n)	Number of control transfers (n)	Estimate of BFT by number possible (n)	ITD Signed (n)
Tunisia	32	14	0	0	13	9
Turkey	496	148	0	0	142	142
Total	813	345	6	1	335	331

As with previous seasons, observers have commented that estimating the weight of fish remains impossible for the following reasons:

- Broad range of size variability between tuna;
- Quality of the video image;
- Density of fish obstructed the view of individual fish; and
- Lack of size reference tool combined with depth of field of the image.

Factors that prevented a reliable estimate of the amount of tuna included:

- The density of tuna obscured individual fish and therefore prevented an accurate count;
- Poor video quality and/or water clarity; and
- Densely packed fish moving in both directions during the transfer.

Differences between vessel and observer estimates vary greatly, with observers estimating less than the vessel on 109 occasions, more than the vessel on 212 occasions and the same amount on 14 occasions. On no occasion did the difference exceed 10%.

Following transfer, the original video record and recording device is provided to the observer to ensure no manipulation occurs. The original copy is then retained by the towing vessel and accompanies the tuna to the receiving farm. A copy of the video record is given to the observer and aside from the previously mentioned situation on the Tunisian vessels, observers received the original video record and recording device and copies of the videos for review in a timely fashion.

3.2.1.2 Release Operations

No release operations from purse seine vessel were reported during the 2020 purse seine fishing season.

3.2.2 On Traps

As with the purse seine vessels, observers rely on standard video records of transfers to estimate the numbers of tuna transferred. The traps have an opportunity to perform a voluntary control transfer should the quality of the initial transfer video not permit an accurate estimate. Of the 36 transfers conducted, the number of fish transferred was estimated on 34 occasions (Table 8). Differences between trap and observer estimates varied greatly, with observers estimating less than the vessel on 19 occasions, more than the vessel on 15 occasions and the same amount on two occasions. On no occasion did the difference exceed 10%.

Table 8: Observer estimations of quantity of BFT during transfers from traps.

Trap State / CPC	Number of Transfers (n)	Number of voluntary control transfers	Number of control transfers	Estimate of BFT by number possible (n)	ITD Signed
EU.Italy	12	0	0	12	10
Morocco	24	3	0	24	24
Total	36	3	0	36	34

3.2.3 On Farms

3.2.3.1 **Caging**

A summary of observer estimations of number of tuna delivered during caging operations is set out in Table 9. There were 199 cagings performed. Of these, the observer was able to estimate the number of tuna caged on 190 occasions. Following the initial caging, 16 control operations were performed. Often these were on request from the farm or national authorities rather than a PNC reported by the observer and were usually related to issues with the stereoscopical footage. On the nine occasions the observer was unable to estimate the number of tuna caged in the initial operation, a control caging was carried out on three occasions. Following these control operations, the observer was able to sign the eBCD and ICD on two occasions. For the remainder, the observer estimate was more than 10% different to the farm's estimate and the observer did not sign the ICD nor eBCD.

As with purse seine video estimations, the difference between observer and farm estimates varied significantly. Of the 186 cagings when the observer was able to estimate the amount of tuna caged from the initial operations, the observer estimated more than the farm on 106 occasions (of which nine had more than a 10% difference), the same on 14 occasions and less on 66 occasions. Of the 15 control operations, when the observer was able to estimate the amount of tuna, the observer estimated more than the farm on 6 occasions (of which one had more than a 10% difference), and less on nine occasions.

In addition, paragraph 85 of Recommendation 19-02 states observers should be provided with 'access to stereoscopic camera footages at the time of caging that enables the measuring of length and estimating the corresponding weight'. However, after reviewing requirements, it currently is not feasible for observers to be provided with exclusive access, software and training to carry out a fully independent and accurate estimate of fish weight during cagings. As such, the observer remains unable to estimate the weight of tuna caged.

Table 9: Observer estimations of quantity of BFT during caging during the current contract

Farm State/CPC	No. Caging Ops (n)	No. Control caging Ops (n)	Stereoscopic Video System (n)	eBCD Signed	ICD signed	Count of BFT estimations from video record by number
EU.Croatia	24	2	24	21	22	22
EU.Spain	46	4	44	35	35	42
EU.Malta	67	5	67	65	65	67
EU.Portugal	2	0	2	2	2	2

Farm State/CPC	No. Caging Ops (n)	No. Control caging Ops (n)	Stereoscopic Video System (n)	eBCD Signed	ICD signed	Count of BFT estimations from video record by number
Morocco	24	0	24	24	24	24
Tunisia	16	4	16	16	16	16
Turkey	21	1	21	21	21	21
Total	199	16	197	184	185	194

A small number of caging operations occurred between the submission of the previous report and the current contract (Table 11). In all cases the observer was able to estimate the number of tuna caged, and the eBCD and ICD were signed.

Table 10: Observer estimations of quantity of BFT during caging between the previous report and commencement of the current contract

Farm State/CPC	No. Caging Ops (n)	No. Control caging Ops (n)	Stereoscopic Video System (n)	eBCD Signed	ICD signed	Count of BFT estimations from video record by number
Tunisia	6	0	6	6	6	6
Turkey	6	0	6	6	6	6
Total	12	0	12	12	12	12

3.2.3.2 Inter-Farm Transfers

Inter-farm transfers, as defined within The Recommendation, Paragraph 3h, have occurred on two farm deployments during the current contract. The consortium defines the operation at the donor farm as the transfer, and the corresponding operation at the receiving farm as a caging. Correspondingly, the consortium understands that the donor farm should produce an ITD, in line with Para. 89 of The Recommendation, and that this operation shall be videoed in line with Para. 91 of The Recommendation.

Table 11: Summary of inter-farm transfers carried out during the current contract

Farm State / CPC	Number of Transfers (n)	Number of voluntary control transfers	Number of control transfers	Estimate of BFT by number possible (n)	ITD Signed
EU.Croatia	1	0	0	1	0
EU.Spain	8	0	0	0	0
Total	9	0	0	1	0

3.2.3.3 **Harvests**

During harvest operations, observers can conduct monitoring activities from a number of locations. These may be the harvesting platform, carrier / processing vessel, on the farm vessel for fresh exports, or a combination of them all, depending on where the most accurate count of tuna and weight can be recorded. In all instances of harvesting, facilities both at farms and on the carrier / processing vessels permitted an accurate count of tuna removed and individual or average weight for fish harvested.

For bulk and fresh harvests, the observer was provided the eBCD as soon as possible after the operation for verification. In all cases the eBCD was signed. In the case of natural mortalities, the eBCD bypassed observer verification and instead was signed by the national authorities.

Table 12: Harvest operations during the current contract year

Farm State/CPC	Number of fresh harvest operations	Number of bulk harvest operations	Number of natural mortalities	eBCD signed
EU.Croatia	45	15	4	60
EU.Spain	158	26	60	184
EU.Malta	0	0	0	0
EU.Portugal	9	0	0	9
Morocco	0	0	0	0
Tunisia	13	0	0	13
Turkey	5	0	0	5
Total	230	41	64	271

Table 13: Harvest operations between the previous report and the current contract year

Farm State/CPC	Number of fresh harvest operations	Number of bulk harvest operations	Number of natural mortalities	eBCD signed
EU.Croatia	60	62	0	122
EU.Spain	210	72	122	282
EU.Malta	57	424	0	480
EU.Portugal	30	0	3	30
Morocco	0	127	0	127
Tunisia	62	78	0	140
Turkey	240	314	0	554
Total	659	1077	125	1735

3.2.3.4 Release operations

For the current contract for all completed deployments, 11 release operations have been conducted from farms. All releases were conducted in line with the requirements of Annex 10 of the Recommendation. Release operations are currently ongoing and anticipated for several current deployments.

Table 14: Release operations current contract year

Farm State/CPC	Number of releases	Observer present	Video record
EU.Croatia	0	0	0
EU.Spain	0	0	0
EU.Malta	11	11	11
EU.Portugal	1	1	1
Morocco	0	0	0
Tunisia	1	1	1
Turkey	0	0	0
Total	15	15	15

For the previous contract for all deployments not included in the last report, a total of 10 release operations were conducted from farms. All releases were conducted in line with the requirements of Annex 10 of the Recommendation.

Table 15: Release operations previous contract year

Farm State/CPC	Number of releases	Observer present	Video record
EU.Croatia	1	1	1
EU.Spain	4	4	4
EU.Malta	4	4	4
EU.Portugal	0	0	0
Morocco	0	0	0
Tunisia	1	1	1
Turkey	0	0	0
Total	10	10	10

4 Potential Non-Compliance Events

4.1 Purse seine vessels

Observers record and report PNCs under the codes listed in Annex 5 of this report. For data management purposes PNC codes are divided by operation type.

In the case of the observer being unable to sign the ITD or eBCD following a transfer or caging operation respectively, Paragraph 93 of the Recommendation requires observers to indicate his/her presence on transfer declarations and eBCDs and include reference to the specific rule which has not been respected, on the unsigned document.

Table 16:PNCs preventing the observer from signing the ITD during the 2020 purse seine season

		Total				
	TLTO	TODT	TRAT	TTNP	Other	Total
Algeria	0	0	0	1	0	1
EU.Croatia	2	1	0	0	0	3
EU.France	1	0	1	0	0	2
EU.Spain	0	0	0	1	0	1
Tunisia	0	0	0	1	5	6
Turkey	1	0	0	5	0	6
Total	4	1	1	8	5	19

The most common PNC relating to review of video records was being unable to make an independent estimate due to video quality or clarity (TTNP). Issues with incomplete video records (TLTO) also occurred relatively frequently

In the case of the Tunisian Other PNCs, this relates to the observer not being onboard at the time of the transfer to verify the validity of the video record and the operational details during the operation. However, upon the vessel's return the observer did review the video record, and in all but one case, the video was not of sufficient quality to make an estimate. In all cases, the observer did not sign the ITD. For all of the vessels that departed without an observer, a global PNC was sent by the consortium listing each of the vessels that had departed without an observer and the corresponding dates (see Table 17). In the cases of the ITDs produced during this time, these were signed by the national authorities.

In the case of the French PNCs, this occurred on one vessel. The first PNC related to an issue with the video record in that it was not continuous (TLTO). The vessel then carried out a voluntary control transfer, which was also non-compliant as the authorisation number was not shown at the start and/or end of the transfer video (TRAT). Another control transfer was carried out after which the observer was able to estimate the amount of tuna transferred.

In addition the observer is also required to report on any other potential non-compliance with ICCAT conservation and management measures.

Table 17: Other PNCs detected during the 2020 purse seine season

		PNC code					TOTAL			
	FBIN	FITN	FLBF	FLBI	FLBN	FMOR	FTRS	GDNI	Other	TOTAL
DZA	1	0	0	0	0	0	0	0	0	1
EU.ESP	0	0	0	0	0	0	0	0	0	0
EU.FRA	0	0	0	0	0	1	0	0	0	1
EU.HRV	0	0	2	0	2	2	1	0	0	7
EU:ITA	0	0	0	0	10	0	10	1	0	21
LBY	0	0	0	0	0	0	0	1	0	1
TUN	2	0	0	0	0	1	0	0	41	44
TUR	1	1	14	1	3	21	0	0	0	41
Total	4	1	16	1	15	25	11	2	41	116

The majority of the other PNCs related to administrative errors on official paperwork. Notably this included:

- No logbook entries made, in particular for unsuccessful fishing operations (FLBF);
- Dead tuna incorrectly recorded or not at all recorded in the logbook or eBCD (FMOR);
- Incorrect or inconsistent information in the eBCD when compared with observations or information in the vessel's logbook (FIBN);
- Incorrect or inconsistent information in the logbook (FLBI);
- incorrect information in the ITD relating to logbook reference (FITN); and
- No logbook entries made (FLBN), particularly when in port.

Other significant PNCs involved

- · Transhipments at sea (FTRS); and
- Vessels not authorized engaged in the fishery (GDNI).

With respect to the Tunisian PNCs, these related to 39 Tunisian vessels departing port without an observer onboard between the 30/05 and 05/06. In addition, on 2 occasions, when the vessels returned to port, the observer was not provided access to the vessel documentation (Other).

4.2 Traps

Observers are required to report on any observed PNCs during trap transfers and their responsibility is limited to this only. Only two PNCs were reported during trap deployments, both on Italian farms, and both related to the video record not showing that date and/or time continuously (ADDT). No voluntary transfers were carried out and the ITD was not signed on either occasion.

4.3 Farms

4.3.1 Current Contract

Observers are required to monitor 100% of all caging and inter-farm transfers. During these operations, they are required to monitor the compliance of the caging and transfer operations with ICCAT Recommendations, as well as review the associated video and report on any PNCs. PNCs relating directly to the caging or transfer operation mean that the observer cannot sign the eBCD or ITD and correspondingly must indicate the reasons for not signing on the document.

Under the current contract, the following observed PNCs meant that the observer was unable to sign the document (Table 18). Unlike transfer operations, the farm is unable to perform a voluntary control operation for caging operations. In the case that the national authorities deem necessary following investigation, a control operation must be performed.

Table 18: PNCs occurring during the current contract relating to compliance of caging or transfer operations on farms.

	PNC code						Total					
	CBDA	CCNP	CFTO	CNVD	CODN	CODO	CTNM	FITN	FTRA	TNVT	TRAT	Total
EU.Croatia	0	1	0	0	1	0	0	1	1	0	1	5
EU.Malta	0	0	0	0	0	2	0	0	0	0	0	2
EU.Spain	2	3	0	2	0	7	1	8	0	8	0	31
Tunisia	0	3	1	0	0	1	0	0	0	0	0	5
Turkey	0	1	0	0	0	0	0	0	0	0	0	1
Total	2	8	1	2	1	10	1	9	1	8	1	44

The most common PNCs observed during caging operations was the observer estimate being more than 10% different to the farm's (CODO) and video quality not being sufficient to allow an estimate (CCNP). Other PNCs included the video not being continuous (CFTO), the opening or closing of the cage door not being shown (CODN) and the caging authorisation not being shown as the start and/or end of the video (CTNM).

On a Spanish farm, due to force majeure, eight cages were transferred to a neighbouring farm. As no physical transfer was completed and no video was produced, and as this was as per definition a transfer, a PNC was issued for both the lack of transfer video (TNVT), and the issue of an ITD (FITN) for all 8 operations at the donor farm. Correspondingly, at the recipient farm, these cages were moored, and again no physical transfer was completed and no video was produced, and as this was as per definition a caging, a PNC was issued for both the lack of caging video (CNVD), and the issue of an eBCD (CBDA) for the 2 operations that had been monitored by completed deployments at the time of writing. These operations and related PNCs (20) skew the total amount of PNCs from Spain. The consortium is aware that these operations were conducted due to force majeure and all operations were also monitored by national authorities.

Another inter-farm transfer was carried out on a Croatian farm. In this case, while the transfer from the donor farm was videoed, no transfer authorisation was produced prior to the operation (FRTA), and therefore was not included in the transfer video (TRAT). Nor was the observer requested to sign the ITD (FITN), which was instead signed by national authorities.

It is clear that the definitions and scope of the role of the observer during these operations needs to be clarified at both the donor and recipient farm for inter-farm transfers.

Nine PNCs were observed on farms relating to general compliance, specifically this related to a Spanish farm recording a caging operation one a different day in the eBCD to that observed by the observer (CBDX) and transport and farm cages in Turkey having the same numbers (CNAC) for 8 caging operations.

4.3.2 During Previous Report and Commencement of the Current Contract

One PNC on a Tunisian farm was detected between the submission of the previous report and the current contract. This related to a caging occurring on 1st of September, after 22nd of August in Tunisia (CLAT) with the observer not being aware of any valid reasons including force majeure.

5 Submission of Deployment Outputs

Paragraph 7d) of Annex 6 The Recommendation requires that observer deployment reports are submitted to the Secretariat within 20 calendar days from the end of the period of observation. In 2020, 100% of reports were submitted within 20 days, and is the third consecutive year in which this has been the case.

6 Scientific Monitoring and Activities

6.1 Length and Weight Sampling

Observers were instructed to perform length and weight sampling on all accessible bluefin tuna which had died and were brought onboard during purse seine operations. In particular, observers are told to prioritise tagged fish. Table 19 summarises sampling activities during the 2020 fishing season. The large number of samples compared to previous years is attributable to the fact that increased amounts of tuna were landed for local markets rather than transfer for delivery to farms, particularly with the Italian fleet.

Table 19: Summary of sampling during 2020 fishing season

Flag State	Number of fish measured for length	Number of fish weighed	Number of tags	Genetic sample
Albania	7	7	0	0
Algeria	14	4	0	0
EU.Croatia	314	76	0	0
EU.Spain	3	3	0	0
EU.France	18	14	0	0
EU.Italy	959	734	3	0
Libya	8	7	0	0
Tunisia	27	11	0	0
Turkey	73	0	0	0
Total	1,423	856	3	0

A total of 8,184 fish were sampled for length (usually SFL but with CFL if no calipers were available) and/or weight during the 2020 fishing season. Table 20 summarises sampling activities during the 2020 fishing season.

Table 20: Summary of sampling during the current harvesting season

Farm State	Number of fish measured for length	Number of fish weighed	Number of tagged fish	Number of samples
EU.Croatia	572	572	0	0
EU.Spain	3,312	6,858	9	5
EU.Portugal	19	19	0	0
Tunisia	725	725	0	0
Turkey	10	10	0	0
Total	4,638	8,184	9	5

6.2 Tagging

During training, the consortium outlined the research necessary for improving the scientific advice that the Committee provides to the Commission which includes a tagging and recovery programme. Observers were also requested by GBYP to retain the heads of tagged tuna for

subsequent collection and otolith and genetic analysis. Three tags were recovered during purse seine operations and reported to GBYP. The details of the tags are below in Table 21.

Table 21: Summary of tags recovered during the purse seine season

Flag state	Date	Latitude	Longitude	CFL Length (cm)	Whole Weight (kg)	Tag #	Tag Type
Italy	19/06/2020	39° 59'N	14° 27'E	193	126	BYP 053297	SS
Italy	08/06/2020	39° 27'N	15° 50'E	250	241	BYP 077925	SS
Italy	08/06/2020	39° 38'N	15° 28'E	270	330	BYP 073484	SS

Nine tags were recovered during the current harvesting season. These were reported in real time, and for 5 of the tags, the head was recovered and stored at the farm for later delivery to GBYP.

Table 22: Summary of tags recovered during the current harvesting season

Farm state	Length (cm)	Whole Weight (kg)	Tag #	Tag Type	Sample
EU.Spain	206 (SFL)	186	BYP 010022	SS	No
EU.Spain	233 (CFL)	251	BYP 076691	SS	No
EU.Spain	220 (CFL)	180	Unknown	SS	No
EU.Spain	205 (CFL)	144	BYP 016942	SS	No
EU.Spain	210(CFL)	162	1) BYP 017778 2) BYP 057778	DS	Head
EU.Spain	218 (CFL)	207	BYP 056608	SS	Head
EU.Spain	210 (CFL)	168	Unknown	PIT	Head
EU.Spain	192 (CFL)	135	SEC008077 OR SEC009077	SS	Head
EU.Spain	178 (CFL)	87	BYP 056888	SS	Head

6.3 Genetic Sampling

Genetic samples were not requested for this season although as mentioned above, in cases where the observer had an opportunity to conserve some part of a tagged individual they would if possible, retain a sample for analysis, preferably the whole head, but if not the first dorsal fin ray. However, no genetic samples were taken during the fishing season. Five heads were retained from tagged fish during the current harvesting season.

7 Conclusions and Recommendations

The Consortium has sought to continually improve and develop the Programme since its implementation through consultation and providing feedback to CPCs and the Secretariat on all technical and operational components.

In general, the operation of the Programme was successful with all deployment requests being met aside albeit considering also aforementioned issues in delivery of equipment to Tunisia and difficulties in providing observers to Malta in May and June. Observers are provided access to transfer and caging videos, and are able for the majority of times able to make estimates of the amount of tuna transferred or caged. PNCs when detected are reported, and in relation to transfers or caging, input onto the ITD/eBCD respectively.

However, some issues remain, usually relating to documentation, especially in specific circumstances such as inter-farm transfers and voluntary control transfers, while the consortium has also made observations on how the Programme could be improved for next season.

A summary of key points for this year's operations, and recommendations for future improvements are presented below. They cover both the general operational framework of the Programme and specific technical improvements associated with observer monitoring tasks and duties.

7.1 Caging Documentation (eBCDs and ICDs)

Delays in production of the ICD and eBCD mean that verification by the observer occurs sometime after the operation. While these delays are less frequent and of less duration they continue to occur as some national authorities continue to wait for the definitive estimates from the stereoscopical estimates before issuing these documents rather than issuing documentation based on provisional estimates, and later amending these with the agreed mechanism. This has also been identified as an issue in previous years.

7.2 Inter-Farm Transfers

Inter-farm transfers have occurred on occasion, involving the transfer of tuna from one farm to another. This operation is defined as a transfers within the definitions of The Recommendation, Para 3h – "any transfer of live bluefin tuna from one farm to another", which require 100% ROP coverage in line with Para 84 of The Recommendation.

The consortium understands these operations at the donor farm are to be considered as transfers, with the requirements of transfers and ROP involvement the same as would be considered at other transfers requiring ROP coverage. Equally the consortium considers the delivery of this tuna at the recipient farm as a caging with the corresponding requirements and ROP scope the same as that to other cagings.

The consortium recommends that the procedure and documentation involved at each stage of a transfer between tuna of different cages, the documentation involved and the corresponding ROP scope and requirement for documentation verification is clarified.

7.3 Documenting Voluntary Control and Control Transfers

While voluntary control transfers occurred less frequently that in 2019 when the procedure was first introduced through Rec. 18-02, these continue to provide a useful mechanism for purse seine operators and reducing potential non compliances associated with transfers. However, the specific procedure for documenting these original and subsequent voluntary

control and control transfers in not consistent, and indeed, often the original transfers are not recorded.

The consortium recommends that the reporting procedure and documentation involved for voluntary control transfers and control transfers, particularly with respect to the ITD is clarified.

7.4 Natural Mortalities

Natural mortalities of tuna occur during farming operations. While these do not require the observers signature, the observer should record these natural mortalities in the report, and in addition they should include the details of the corresponding eBCDs verified by national authorities if required. However, as these natural mortalities bypass observer signature, the observer is not always provided this information and cannot determine if these were allocated to an eBCD as is required by Rec. 18-13.

While it is recognised that natural mortalities can occur throughout the course of the year, including when an observer is not present, and therefore an alternative mechanism is required, it is recommended, that in cases an observer is deployed, these eBCDs are available through the eBCD portal for reference and inclusion in the report. Furthermore, if possible the observer should be provided access to these fish in order to sample them, if these occur during the deployment period.

7.5 Consultation with CPCs

During previous years the Consortium found the consultation with CPCs and the Secretariat on operational and technical components of the Programme informative for improving the Programme and also for communicating and receiving direction on specific areas of data collection and reporting. This approach was reintroduced last season and partially carried on this season albeit restrictions due to the COVID-19 pandemic limited the possibilities. It is hoped that continued communication with the CPCs and Secretariat can continue.

7.6 Timing of Annual Report

The current timing of the annual report falls midway through the harvesting season, and while the Norwegian fleet is still operative. Furthermore, depending on a deployment's start and finish dates, it is not always possible to ensure that the annual report includes all purse seine, caging and transfer operations. It is suggested that the annual report be submitted later in November, and focusses only on purse seine and farm caging operations. An interim report may be issued at the end of April to cover farm activities after the annual report. This way the annual report will only cover operations relevant to the current year of the contract.

7.7 Use of InReach Device

The InReach device provided to observers during the 2020 contract satisfied the requirements of Rec. 19-10. However, the device itself also offers further potential applications, such as real time reporting of transfer activities, and potential non-compliances, particularly in the event that the vessels have no satellite communications onboard. The consortium recommends that these potential further applications be explored to improve observer ability to meet the requirements of the ROP established in Annex 6; Para 7 of The Recommendation, albeit this would involve an increased cost associated with satellite signal use.

7.8 Provision of Equipment to North Africa

The consortium is conscious of the impact of the delay of the delivery of equipment to observers embarking vessels in Tunisia and to a lesser extent Morocco. The consortium also appreciates of the patience and cooperation given by the respective fleet operators. However,

as the situation was out of the consortium's control there is no guarantee that the same situation can be avoided for next season. Even if the restrictions caused by the COVID-19 pandemic are not in place next year, the delivery of the InReach independent satellite device is likely to cause difficulties in Tunisia, Algeria and Morocco.

As such the consortium would like to explore alternatives and propose that the safety equipment, which is to be issued to the observer, is held and maintained by the vessel operators. This equipment would be checked and itemised by the observer on boarding the vessel as with the rest of the safety equipment required on the vessel in line with the terms of the MoU. Furthermore, the satellite communication device line rental will continue to be maintained by the consortium to ensure full independence of the communications. The consortium is happy to discuss about this solution with the ICCAT Secretariat in order to avoid this kind of delay for the future.

Annex 1 Response to the COVID-19 Pandemic

Overall, the consortium required all observers to undertake a self-assessment of any symptoms before travel as well as be equipped with appropriate hygienic equipment such as face mask and hand sanitiser and be up to date on best practices. We will also require all observers to declare previous movements and any potential risk exposure, which has been outlined in the MoU and can be available to operators on request. More recently, the consortium has decided to have all observers tested, with the results obtained prior to travel.

The consortium also undertook to increase the capacity of various hubs notably in Tunisia, Morocco, Croatia, Portugal, Italy, Spain, Turkey and Malta, and organising distribution of equipment, including InReach, to allow safe and efficient deployment. This is ongoing, and currently the consortium has capacity to deploy observers directly to a number of sites and receive equipment and be briefed on site remotely, or by senior observers or regional staff.

Training and Recruitment

In response to the COVID/19 pandemic the consortium developing online training and learning tools and webinar resources which allowed remote training of both returning and new observers. This includes the sharing of transfer videos provided by farm operators (which identifying features redacted) both as presentation and a learning tool, online training resources and interactive learning and tailoring the presentation to be compatible with webinar format.

Training was conducted almost exclusively online through video conference, except for some observers in Tunisia and Algeria. A total of 126 returning observers and 125 new observers were trained.

Training type	Returning observer	New observer	Total
Video conference	106	85	191
In person (Tunisia and Algeria)	20	40	60
Total	126	125	251

Regarding recruitment, increased drive was made to those countries with large fleet size to increase operational flexibility including if required deploying same nationality observers in line with restrictions in place at that time. Furthermore, the consortium was permitted increased recruitment to allow for increased contingency (normally 20%). This meant that slightly more observers were trained than would have been normally. At the time of the start of training (end of April), there was an anticipated 205 vessel operating, which under normal circumstances would have required 246 active observers, whereas in actual fact 251 were trained although these observers were also used to cover caging deployments which can and do overlap with fishing operations.

Mobilisation for Purse Seine Deployments

As in previous years, observers were assigned to vessels where possible on the basis of nationality and language skills so as to adhere to the requirements of the programme, although unlike previous years, the main consideration was to limit the amount of travel required and subsequent risks associated with COVID-19. In addition, in line with national requirements, deployment letters issued by respective national authorities, the Secretariat and the consortium were issued to travelling observers in order to facilitate movement, particularly across borders as required.

As such, and in accordance with the ICCAT circular 2282-20, observers of the same nationality as the purse seine vessel's flag were deployed in several instances during the 2020 purse seine fishing season. Regional Observers of the same nationality were deployed on all Algerian, EU-Croatia, EU-;Malta, Moroccan, Tunisian, and Turkish vessels, and all but one EU-Italian vessels. Different nationality observers were deployed on all Albanian, Egyptian, EU-Cyprus, EU-Spain and Libyan vessels, and all but one EU-French vessels.

Finally, in response to the COVID-19 pandemic and in line with requests with various fleets, observers were requested to arrive to port earlier to allow testing and subsequent self-isolation until negative test results were obtained. This procedure was carried out for the Spanish and French fleets. Furthermore, 5 of the observers on the Spanish fleet were mobilised earlier than the request date in order to pass the Spanish border prior to the imposition of Spanish quarantine requirements for all arrivals on the 15th of May. The 22 observers designated to French vessels spent 33 days in port for testing and subsequent self-isolation awaiting test results. The 6 observers designated to Spanish vessels spent 31 days in port for standby following arrival, testing and subsequent self-isolation awaiting test results.

Mobilisation for Farm and Trap Deployments

As with purse seine deployments, and as in previous years, observers were assigned to farms and traps wherever possible on the basis of nationality and language skills so as to adhere to the requirements of the programme, although as with purse seine deployments, the main consideration was to limit the amount of travel required and subsequent risks associated with COVID-19.

As such, and in accordance with the ICCAT circular 2282-20, observers of the same nationality as the farm and trap's flag were deployed in several instances during the 2020 season.

Regional Observers of the same nationality were deployed on all Moroccan farm and trap deployments, all Italian trap deployments, all Turkish farm deployments, all Tunisian farm deployments and all Croatian farm deployments. Observers of different nationality to the farm/trap flag state were deployed to all Portuguese farm deployments, all Spanish farm deployments and all Maltese farm deployments.

Observer briefing for farm deployments similarly to observer training happened remotely, unless observers were deploying from a nearby hub.

Observer Debrief

At the end of the fishing season, the restrictions associated with COVID-19 were considerably less, allowing in some cases debrief in person. The following table summarises observer debrief following the purse seine season.

Table 24: Summary of observer debrief following purse seine season

	Number of observers					
Flag / CPC	Web-conference	Senior observer / Web-conference	In person			
Albania	2	0	0			
Algeria	0	23	0			
Egypt	0	0	1			
EU.Croatia	0	0	17			
EU.Cyprus	0	1	0			
EU.Spain	0	0	6			

	Number of observers						
Flag / CPC	Web-conference	Senior observer / Web-conference	In person				
EU.France	0	9	13				
EU.Italy	0	0	19				
EU.Malta	0	1	0				
Libya	6	0	9				
Morocco	2	0	0				
Syria	0	0	1				
Tunisia	0	0	49				
Turkey	0	0	27				
Total	10	34	142				

Likewise, for farm and trap debriefings, restrictions were less than they were at the start of the season, allowing in person debrief.

Table 25: Summary of observer debrief following farm / trap deployments

		Number of observers	
Flag / CPC	Web-conference	Senior observer / Web-conference	In person
EU.Croatia	4	2	0
EU.Spain	2	0	4
EU.Italy	0	0	3
EU.Malta	3	2	2
EU.Portugal	0	0	1
Morocco	5	0	0
Tunisia	2	0	1
Turkey	0	0	4
Total	16	4	15

Notable Incidents

Throughout the purse seine season and farm/trap deployments, the following notable incidents related to COVID-19 occurred.

- An observer designated to a Libyan vessel embarking from Malta tested positive for COVID-19 prior to embarkation and had to be replaced;
- A Turkish vessel had a 2 crew with suspected COVID-19. The vessel was quarantined
 in port and all crew and observer were tested until local authorities determined that no
 one onboard was infected with COVID-19;
- A crew member of a Croatian vessel fell ill and had to spend some time in port. While
 this had not been diagnosed as COVID-19 at the time, the observer remained ashore
 and took a COVID test. By the time results were obtained and it was safe to reembark
 a few days later, the season had finished.

- An observer during a farm deployment in Croatia tested positive to COVID-19 following appearance of symptoms. The observer was immediately removed and undertook quarantine. The farm was informed and took appropriate measures to mitigate any risk of further infection, at which point the replacement observer arrived; and
- One observer destined to a Spanish farm tested positive before arrival following identification of symptoms. The observer was replaced, and the observer who was scheduled to depart remained on site until the replacement observer arrived.

Annex 2 **Implementing the Requirements of Rec. 19-10**

Recommendation 19-10 established requirements for both the observer provider and the vessel, farm or trap operator relating to safety training, independent satellite communications device, safety equipment and emergency procedures.

Safety Training

In line with Paragraph 1, "the observer provider shall provide or ensure observers have received safety training before they are deployed on a vessel for the first time and at appropriate intervals thereafter. Such training program must, at a minimum, meet the International Maritime Organization (IMO) safety training standards".

This has long been a requirement for recruitment of the programme for new and returning observers to have been trained to IMO safety training standards within the last 5 years. In addition the consortium also requires that all observers have received a sea farer's medical within the last 2 years. For all the new observers who did not have any safety certificate and with no possibility to be trained on time, an "IMO safety" like training, under the agreement of the Secretariat.

Considering the impact of the COVID-19 pandemic, several observers experienced issues in renewing these certificates. Under the circumstances it was agreed that an exceptional allowance would also be permitted for those certificates that had expired in the last 6 months. For all the new observers who did had any safety certificate and no possibility to be trained on time. They received a "IMO safety" like training, under the agreement of the Secretariat. This was particularly relevant for Italian observers.

Independent Satellite Communications Device

In line with Paragraph 2, "Before deploying an observer on a vessel for a trip, the observer provider shall ensure the observer is issued the following safety equipment:

a) an independent two-way satellite communication device suitable for use at sea and a waterproof personal life-saving beacon, which may consist of a single device such as a Satellite Emergency Notification Device, or a combination of an independent two-way satellite-based device, (e.g. an InReach messaging device) and a personal locator beacon (e.g., a ResQ Link device); and

The consortium has always provided observers with a Personal Locator Beacon (e.g., EPIRB) as part of the standard equipment issued for deployment. However, an independent 2-way satellite communication device was not previously supplied. In line with the requirements of Rec. 19-10, observers were all issued with an InReach Mini device¹ which allowed independent communication between the observer and the consortium via text messaging. This also provides the consortium with the position of the device at the time of messaging.

All observers were required to send a test message on embarkation of the vessel, and this was particularly useful in the case of at sea transfers. As an example, the following message was received from an observer following an at sea transfer to the vessel, and by selecting the link, the position of the device at the time of sending is displayed (Figure 2).

¹ https://buy.garmin.com/en-GB/GB/p/592606/pn/010-01879-00

"I am on board Safinat Nooh. R1 and PSI OK. 31/05/2020 PM 04:30"

View the location or send a reply to ROP BFT 189:

https://eur.explore.garmin.com/textmessage/txtmsg?extId=e18ce70d-278d-4286-9909-1cbe6c90830a&adr=turkey-em%40mrag.co.uk

ROP BFT 189 sent this message from: Lat 35.786086 Lon 35.421188



Figure 2: Message received from observer confirming safe at-sea transfer to the Egyptian flagged vessel, Safinat Nooh

Further Applications of Satellite Communication Device

The consortium also requested selected observers send real time messaging in order to explore potential further applications of the InReach mini device in line with the requirements of the Programme.

These may include:

- Real time reporting on transfer activity. Using the application and link provided, the
 location of the vessel at the time the message was sent is provided, and details on the
 transfer and compliance of the video record can be provided..
- Real time reporting of PNCs, particularly relating to transfers and video records, and the non-signing of the ITD.

Provision of Safety Equipment

Further in line with Paragraph 2, "Before deploying an observer on a vessel for a trip, the observer provider shall ensure the observer is issued the following safety equipment:

b) other safety equipment, such as personal flotation devices (PFDs) and immersion suits, appropriate to the specific fishing operations and activities, including ocean area and distance from shore".

The consortium has always provided the observer with the following equipment, and continued to do so for the 2020 fishing season:

- SOLAS approved life jacket of at least 150N within service date;
- SOLAS approved immersion suit within service date;
- Strobe light;
- Signal mirror;
- First aid kit:
- Hard hat: and
- Observers are required to provide their own safety footwear.

Emergency Procedures

In line with Paragraph 3; "The observer provider shall have a designated contact point for deployed observers to use in cases of emergency" and 4; "The observer provider must have an established procedure for contacting and being contacted by the observer and the vessel, and, if necessary, for contacting the competent authority of the flag CPC or non-CPC. This procedure must provide for regularly scheduled contact with observers to confirm their health, safety, and welfare status and clearly describe the steps that must be taken in the event of various emergencies, including situations where an observer dies, is missing or presumed fallen overboard, suffers from a serious illness or injury that puts his or her health or safety at risk, has been assaulted, intimidated, threatened or harassed while on board a vessel, or if the observer requests to be removed from the vessel prior to the conclusion of the trip".

The consortium has an established set of procedures relating to any reported emergency, and has the contact details of each vessel operator, as established within the MoU. As part of the procedure for embarkation, observers confirm the contact details of the vessel and operator.

Annex 3 Farm Deployments in the Current Contract

Request number	Farm ICCAT number/s name	Date start	Date end
001EU0539	ATEU1HRV00012	12/01/2020	10/04/2020
001EU0542	ATEU1ESP00003	01/02/2020	15/06/2020
001EU0545	ATEU1ESP00005	15/02/2020	03/04/2020
001MA0547	AT001MAR00002	24/04/2020	17/06/2020
001EU0554	ATEU1ESP00001	05/06/2020	06/07/2020
001EU0548	ATEU1ESP00004	27/04/2020	08/07/2020
001EU0559	ATEU1MLT00001/ATEU1MLT00002	25/06/2020	09/07/2020
001EU0562	ATEU1MLT00002	01/07/2020	15/07/2020
001TR0566	AT001TUR00014	07/07/2020	16/07/2020
001TN0563	AT001TUN00004	28/06/2020	17/07/2020
001EU0564	ATEU1MLT00007	28/06/2020	19/07/2020
001TR0567	AT001TUR00010	12/07/2020	19/07/2020
001TR0561	AT001TUR000004/AT001TUR000005/ AT001TUR00013	18/06/2020	22/07/2020
001MA0546	AT001MAR00002	24/04/2020	25/07/2020
001EU0550	ATEU1HRV00006	01/06/2020	30/07/2020
001EU0551	ATEU1HRV00011	01/06/2020	01/08/2020
001EU0552	ATEU1HRV00008	01/06/2020	01/08/2020
001TN0569	AT001TUN00001	18/07/2020	01/08/2020
001EU0568	ATEU1PRT00002	20/07/2020	07/08/2020
001TR0565	AT001TUR00011	02/07/2020	11/08/2020
001EU0549	ATEU1HRV00012	01/06/2020	29/08/2020
001EU0578	ATEU1MLT00007	29/08/2020	02/09/2020
001EU0555	ATEU1MLT00008	06/06/2020	03/09/2020
001EU0576	ATEU1HRV00008	25/08/2020	04/09/2020
001EU0556	ATEU1MLT00004	11/06/2020	07/09/2020
001EU0558	ATEU1MLT00003	15/06/2020	10/09/2020
001EU0577	ATEU1HRV00011	05/09/2020	10/09/2020
001EU0553	ATEU1ESP00005	05/06/2020	11/09/2020
001TN0560	AT001TUN00002	15/06/2020	12/09/2020
001EU0557	ATEU1ESP00003/ATEU1ESP00001	16/06/2020	13/09/2020
001EU0580	ATEU1ESP00004	01/09/2020	23/09/2020
001MA0571	AT001MAR00002	23/08/2020	30/09/2020
001MA0573	AT001MAR00002	28/08/2020	30/09/2020
001MA0574	AT001MAR00002	06/09/2020	30/09/2020

Annex 4 Farm Deployments in the Previous Contract Year

Request number	Farm ICCAT number/s	Start date	End date
001TR0493	AT001TUR00011	28/06/2019	29/09/2019
001EU0495b	ATEU1ESP00003	12/08/2019	19/09/2019
001EU0502	ATEU1HRV00012	15/07/2019	12/10/2019
001EU0505	ATEU1ESP00005	17/08/2019	15/11/2019
001TN0506	AT001TUN00004	13/08/2019	05/09/2019
001EU0507	ATEU1ESP00004	20/08/2019	27/09/2019
001EU0508	ATEU1ESP00001	29/08/2019	17/09/2019
001EU0509	ATEU1MLT00008	29/08/2019	26/11/2019
001EU0510	ATEU1PRT00002	04/09/2019	15/11/2019
001MA0511	AT001MAR00002	05/09/2019	17/11/2019
001MA0512	AT001MAR00002	05/09/2019	06/10/2019
001EU0514	ATEU1ESP00003	20/09/2019	03/11/2019
001EU0515	ATEU1MLT00003	20/09/2019	15/12/2019
001TR0516	AT001TUR000004/AT001TUR000005/ AT001TUR000013	23/09/2019	21/12/2019
001TR0517	AT001TUR00011	04/10/2019	05/01/2020
001TR0518	AT001TUR00014	27/09/2019	23/12/2019
001EU0519	ATEU1ESP00001	01/10/2019	15/10/2019
001EU0520	ATEU1ESP00003	01/10/2019	15/10/2019
001EU0521	ATEU1MLT00004	01/10/2019	31/10/2019
001EU0522	ATEU1MLT00002	09/10/2019	30/11/2019
001EU0523	ATEU1HRV00012	14/10/2019	11/01/2020
001TN0524	AT001TUN00002	14/10/2019	16/01/2020
001EU0525	ATEU1MLT00002	12/10/2019	30/11/2019
001EU0526	ATEU1ESP00003	04/11/2019	01/02/2020
001EU0527	ATEU1MLT00007	01/11/2019	18/11/2019
001EU0528	ATEU1MLT00004/ ATEU1MLT00007	01/11/2019	31/01/2020
001EU0529	ATEU1ESP00005	16/11/2019	14/02/2020
001MA0530	AT001MAR00002	18/11/2019	06/12/2019
001EU0531	ATEU1MLT00008	27/11/2019	10/01/2020
001TN0532	AT001TUN00004	02/12/2019	07/01/2020
001EU0533	ATEU1MLT00003	17/12/2019	04/02/2020
001EU0534	ATEU1HRV00006/ ATEU1HRV00008 ATEU1HRV00011	19/12/2019	29/02/2020
001TR0535	AT001TUR00010	19/12/2019	17/03/2020
001TR0536	AT001TUR000004/AT001TUR000005/ AT001TUR000013	22/12/2019	21/03/2020
001TR0537	AT001TUR00014	24/12/2019	17/03/2020
001TR0538	AT001TUR00011	06/01/2020	29/01/2020
001TN0540	AT001TUN00002	17/01/2020	28/03/2020
001EU0541	ATEU1MLT00001/ ATEU1MLT00002	24/01/2020	21/02/2020
001EU0542	ATEU1ESP00003	02/02/2020	15/06/2020
001TN0543	AT001TUN00004	04/02/2020	21/02/2020
001EU0544	ATEU1MLT00004/ ATEU1MLT00007	01/02/2020	30/03/2020

Annex 5 PNCs Used for the Current Contract

Potential Non-Compliance [PNC] Event and Codes - General			
PNC Event	Reference		
General events:			
Observer obstructed, intimidated, interfered with, bribed or attempted to bribe in the performance of his/her duties	Rec. 19-04; Annex 6 – Para 11.		
Unauthorised transhipment (dead tuna)	Rec. 19-04; Para 77 / 78		
Observer prevented from taking size measurements, biological samples or examining tags	Rec. 19-04; Para 85		
Landing in non-designated port	Rec. 19-04; Para 71		
Vessel(s) not on ICCAT record of authorized vessels involved in operations.	Rec. 19-04; Para 49		

Potential Non-Compliance [PNC] Event and Codes- Fishing Season			
PNC Event	Reference		
Relative to YOUR fishing vessel			
Specific events:			
Transhipment at-sea involving your vessel (dead tuna)	Rec. 19-04; Para 77		
Fishing outside designated season	Rec. 19-04; Para 29		
Fish below minimum size retained, transferred or landed	Rec. 19-04; Para 34		
Problems with the official documentation (Logboo	k, eBCD, ITD etc.):		
No electronic BFT Catch document (eBCD) produced	Rec. 11-20		
Dead tuna incorrectly recorded in the vessel logbook and/or eBCD	Rec. 19-04; Annex 11		
Information in the eBCD is incorrect or inconsistent (operation dates, vessel/cage details, number and weight of fish transferred)	Rec. 18-13; Annex 1		
No logbook entry made for that day (as per requirements of Annex 2 of Rec. 19-04)	Rec. 19-04; Para 63 / Annex 2		
No logbook entry for a fishing operation (successful or not) before 09:00 the following day	Rec. 19-04; Para 66		
Incomplete and/or incorrect logbook information	Rec. 19-04; Para 63 / Annex 2		
ICCAT Transfer declaration (ITD) not completed in accordance with Para. 89 and Annex 4 of Rec. 19-04.	Rec. 19-04; Para 89; Annex 4		
Problems with the transfer:			
Prior-transfer notification not sent (or not sent prior to transfer)	Rec. 19-04; Para 86		
Transfer conducted before receiving transfer authorisation	Rec. 19-04; Para 87		
Transport cage without a unique identifiable number	Rec. 19-04; Para 86		

Potential Non-Compliance [PNC] Event and Codes- Fishing Season

Problems with the video during a Transfer: (for a control transfer add the letter "C" before the PNC code).

Note, the vessel has the opportunity to carry out a voluntary transfer in order to provide a compliant video record (Rec. 19-04; Para 92). If video record on second transfer is acceptable, no PNCs should be submitted for the first transfer and the ITD can be signed

	•
Transfer not monitored by video	Rec. 19-04; Para 91
The electronic storage device not provided to the observer as soon as possible after transfer operation	Rec. 19-04; Para 92; Annex 8 i
Video record of transfer did not show opening <u>and/or</u> closure of door at the start <u>and/or</u> the end of transfer	Rec. 19-04; Para 92; Annex 8 vi
Video record of transfer did not show date <u>and/or</u> time continuously	Rec. 19-04; Para 92; Annex 8 v
Video record of transfer was not continuous or did not cover the entire transfer operation	Rec. 19-04; Para 92; Annex 8 vii
Video record of transfer did not show the receiving and donor cage to see if they already held / still hold tuna before and after the transfer operation	Rec. 19-04; Para 92; Annex 8 vi
Video record of transfer did not show Transfer Authorisation number at beginning and/or end of the video	Rec. 19-04; Para 92; Annex 8 iv
Independent observer estimate of transfer amount was not possible due to video quality or clarity	Rec. 19-04; Para 92; Annex 8 viii
Observer estimate for the transfer more than 10% different than vessel's	Rec. 19-04; Para 92
Copy of video record of transfer not provided to the observer during deployment	Rec. 19-04; Para 92; Annex 8 iii
Logbook not completed in line with requirements of Annex 2 of Rec. 19-04 following transfer operation	Rec. 19-04; Para 63; Para 89c / Annex 2
Problems during a release during fishing	season:
Release not monitored by video	Rec. 19-04; Para 88; Annex 10
Copy of video record of release not provided to the observer.	Rec. 19-04; Para 88; Annex 10
Relative to OTHER vessel(s) / aerial su	pport
Aerial support used during searching operations (e.g. drone, plane)	Rec. 19-04; Para 48
Transhipment at-sea (dead tuna) – between other vessels	Rec. 19-04; Para 77
	1

Potential Non-Compliance [PNC] Event - Farm			
PNC Event	Reference		
Specific events:			
Fish below minimum size landed	Rec. 19-04; Para 34		

Potential Non-Compliance [PNC] Event - Farm			
Problems with the official documentation (eBCD):			
Electronic BFT Catch document (eBCD) not produced or incomplete following caging.	Rec. 18-13; Annex 1		
Observer observations of caging operation do not agree with those in the eBCD (for example, different dates, cage numbers, numbers of tuna).	Rec. 18-13; Annex 1; Rec. 19-04; Para 85		
A group BCD reference number was allocated to fish from more than one JFO, or from more than one vessel not in the same JFO	Rec. 18-13; Para 6		
A group BCD reference number was allocated to caging operation > 1 day	Rec. 18-13; Para 6		
A group BCD reference number was allocated to more than one farm cage	Rec. 18-13; Para 6		
Problems with the caging:			
Tuna caged before authorisation received	Rec. 19-04; Para 95		
Fish below minimum size caged	Rec. 19-04; Para 34		
Transport cage anchored within 0.5 nm of farming facilities prior to start of caging operations	Rec. 19-04; Para 94		
Transport/Farm cage without a unique identifiable number	Rec. 19-04; Para 86; Rec. 06-07 Para 2a		
Caging not covered by stereoscopical video	Rec. 19-04; Para 99		
Tuna caged are not separated by JFO	Rec. 18-13; Para 5		
Tuna caged are not separated by flag of the catching vessel (outside of JFO)	Rec. 18-13; Para 5		
Carried over tuna from previous year/s not placed in separate cages	Rec. 18-13; Para 8		
Unauthorised caging after 22 nd of August, or any caging after 7 th of September	Rec. 19-04; Para 95		
Independent observer estimate of amount caged was not possible due to video quality	Rec. 19-04; Annex 8 viii		
Observer estimate more than 10% different than farm's (caging)	Rec. 19-04; Para 98		
An accurate copy of the video record of the caging was not provided to the observer on the farm	Rec. 19-04; Para 92; Annex 8 iii		
Internal transfer of bluefin tuna between farm cages not authorized or not in presence of CPC control authorities	Rec. 19-04; Para 100		
Problems with the video during a caging: (for a control caging add the letter "C" before the PNC code)			
Note, the farm may conduct one additional voluntary transfer after the initial transfer. If video record on second transfer is acceptable, no PNCs should be submitted for the first transfer and the eBCD can be signed			
Caging not monitored by video	Rec. 19-04; Para 97 CNVD		

Potential Non-Compliance [PNC] Ev	ent - Farm		
	Citt - i aiiii		
The electronic storage device containing the original caging video record was not provided to the regional observer as soon as possible after the operation	Rec. 19-04; Para 92; Annex 8 i		
Video record of caging did not show opening and/or closing of the door at the start and/or end of the operation	Rec. 19-04; Para 92; Annex 8 vi		
Video record of the caging did not show date and/or time continuously	Rec. 19-04; Para 92; Annex 8 v		
Video record of caging was not continuous or did not cover the entire operation	Rec. 19-04; Para 92; Annex 8 vii		
Video record did not show the receiving and donor cage to see if they already held / still hold tuna before and after the caging operation.	Rec. 19-04; Para 92; Annex 8 vi		
Video record of transfers did not show the Caging Authorisation number at beginning or end of each video	Rec. 19-04; Para 92; Annex 8 iv		
Problems during a Harvest deploy	ment:		
Information in the electronic BFT Catch document (eBCD) not completed following a harvest / Harvested fish not allocated to an eBCD	Rec. 18-13; Annex 1		
Observer observations of harvested tuna do not agree with those in the eBCD (for example, date, cage, number harvested).	Rec. 18-13; Annex 1; Rec. 19-04; Para 85		
Observer observations of number and weight of harvested tuna inconsistent with that in the eBCD.	Rec 18-13; Annex 1; Rec. 19-04; Para 85		
Internal transfer of bluefin tuna between farm cages not authorized or not in presence of CPC control authorities	Rec. 19-04; Para 100		
Farm cage without a unique identifiable number	Rec. 19-04; Para 86; Rec. 06-07 Para 2a		
No traceability for internal transfers of tuna within a farm	Rec. 19-04; Para 103		
Fish below minimum size harvested	Rec. 19-04; Para 34		
Problems during a Release:			
Release not monitored by video	Rec. 19-04; Para 88; Annex 10	RNVR	
Tuna not released within 3 weeks (21 days) following completion of caging operations (note this does not apply to tuna released following completion harvesting operations).	Rec. 19-04; Para 88 Annex 10	RRLI	
Copy of video record of release not provided to the observer.	Rec. 19-04; Para 88; Annex 10	RVOR	

Potential Non-Compliance [PNC] Event - Trap		
PNC Event	Reference	
Specific events:		
Fish below minimum size transferred or landed	Rec. 19-04; Para 34	
Problems with the transfer:		

Potential Non-Compliance [PNC] Event - Trap		
Prior-transfer notification not sent (or not sent prior to transfer)	Rec. 19-04; Para 86	ATRN
Transfer conducted before receiving transfer authorisation	Rec. 19-04; Para 87	ATRA
Transport/Farm cage without a unique identifiable number	Rec. 19-04; Para 86	ANAC

Problems with the video during a Transfer: (for a control transfer add the letter "C" before the PNC code).

Note, the trap has the opportunity to carry out a voluntary transfer in order to provide a compliant video record (Rec. 19-04; Para 92).. If video record on second transfer is acceptable, no PNCs should be submitted for the first transfer and the ITD can be signed

Transfer not monitored by video	Rec. 19-04; Para 91	ANVT
The electronic storage device not provided to the observer as soon as possible after transfer operation	Rec. 19-04; Para 92; Annex 8 i	AVRO
Video record of transfer did not show opening <u>and/or</u> closure of door at the start <u>and/or</u> the end of transfer	Rec. 19-04; Para 92; Annex 8 vi	AODT
Video record of transfer did not show date <u>and/or</u> time continuously	Rec. 19-04; Para 92; Annex 8 v	ADDT
Video record of transfer was not continuous or did not cover the entire transfer operation	Rec. 19-04; Para 92; Annex 8 vii	ALTO
Video record of transfer did not show the receiving and donor cage to see if they already held / still hold tuna before and after the transfer operation	Rec. 19-04; Para 92; Annex 8 vi	AVDS
Video record of transfer did not show Transfer Authorisation number at beginning and/or end of the video	Rec. 19-04; Para 92; Annex 8 iv	ARAT
Independent observer estimate of transfer amount was not possible due to video quality or clarity	Rec. 19-04; Para 92; Annex 8 viii	ATNP
Observer estimate for the transfer more than 10% different than vessel's	Rec. 19-04; Para 92	AOGO
Copy of video record of transfer not provided to the observer during deployment	Rec. 19-04; Para 92; Annex 8 iii	ATTO