



## *PIRATA 2021 SSG meeting:*

# French national report & status



### Present members in FRANCE of the PIRATA-SSG:

- Bernard BOURLÈS (IRD-IMAGO SU, Brest; coordination PIRATA in France)
- Fabrice HERNANDEZ (IRD-LEGOS, Toulouse)
- Hervé GIORDANI (Météo-France, CNRM, Toulouse)



## PIRATA status in France :

**The PIRATA-France label as « National Observations Service for Ocean-Atmosphère » by CNRS allows and ensures vessel time every year.**

**This label also commits national institutions to support & fund PIRATA (IRD, Météo France, National Oceanographic Fleet...)**

**The 5 years convention between IRD and Meteo-France has been renewed (for 2021-2025).**

**The French « national fleet scientific committee » proceeded to the scientific evaluation of the PIRATA-FR cruises series in 2020:  
Positive => the annual vessel time is guaranteed from 2022 to 2025.**

**National attempt to better organize Open Oceans National Observations Services within an « Research Infrastructure », as are ARGO, Coastal Obs...  
(OHIS for In Situ Open Ocean Obs: results by fall 2021).**

## PIRATA status in France :

### PIRATA Fr fundings & support :

**IRD: ~50k€/y**

**METEO-France: 30k€/y**

**OMP (Observatoire Midi-Pyrénées): ~3k€/y**

**+ *National « Research Fleet » Service Unit (Ifremer, CNRS, IRD, ...) for vessel time.***  
**> 1M€/y**

# French PIRATA dedicated cruises : 31 cruises from 1997 to 2021

(=> >950 days at sea)

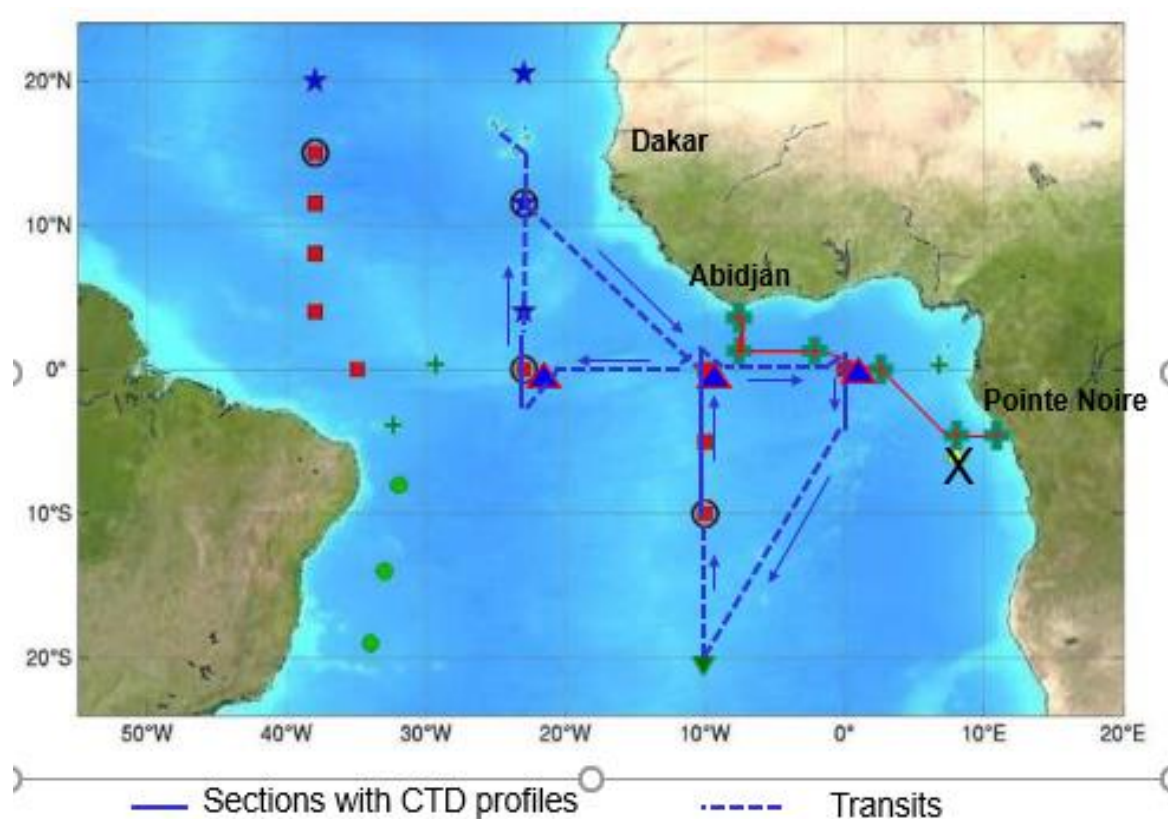
Nom de la campagne	Navire	Dates	Chef de mission
PIRATA FR1	ANTEA	09/09-16/09 1997	Jacques SERVAIN
PIRATA FR1 bis	ANTEA	30/01-03/02 1998	Jacques SERVAIN
PIRATA FR2	ANTEA	30/10-10/11 1998	Jacques SERVAIN
PIRATA FR3	ANTEA	23/01-01/02 1999	Jacques SERVAIN
PIRATA FR4- EQUALANT 1999	THALASSA	13/07-21/08 1999	Yves GOURIOU
PIRATA FR5	ANTEA	25/10-08/11 1999	Jacques SERVAIN
PIRATA FR6	SUROIT	08/03-19/03 2000	Jacques GRELET
PIRATA FR7 – EQUALANT 2000	THALASSA	23/07-21/08 2000	Bernard BOURLÈS
PIRATA FR8	ATALANTE	17/11-03/12 2000	Jacques GRELET
PIRATA FR9	ATALANTE	20/10-11/11 2001	Jacques GRELET
PIRATA FR10	ATALANTE	06/12-21/12 2001	Jacques SERVAIN
PIRATA FR11	SUROIT	17/12-03/01 2002-2003	Jacques GRELET
PIRATA FR12	ATALANTE	28/01-19/02 2004	Bernard BOURLÈS
PIRATA FR13	SUROIT	23/05 - 05/06 2005	Jacques GRELET
PIRATA FR14 – EGEE 1	SUROIT	07/06 - 05/07 2005	Bernard BOURLÈS
PIRATA FR15 – EGEE 3	ATALANTE	24/05 - 05/07 2006	B.BOURLÈS/Y.GOURIOU
PIRATA FR16	ANTEA	19/05 - 01/06 2007	Jacques GRELET
PIRATA FR17 – EGEE 5	ANTEA	04/06 – 09/07 2007	Frédéric MARIN
PIRATA FR18	ANTEA	01/09 – 06/10 2008	Jacques GRELET
PIRATA FR19	ANTEA	16/06 – 24/07 2009	Jacques GRELET
PIRATA FR 20	ANTEA	13/09 – 22/10/2010	Jacques GRELET
PIRATA FR 21	SUROIT	01/05 – 16/06/2011	B.BOURLÈS/J.GRELET
PIRATA FR 22	SUROIT	19/03 – 02/05/2012	B.BOURLÈS/J.GRELET
PIRATA FR 23	SUROIT	09/05 – 20/06/2013	B.BOURLÈS/J.GRELET
PIRATA FR 24	SUROIT	09/04 – 22/05/2014	B.BOURLÈS/Y.GOURIOU
PIRATA FR 25	THALASSA	18/03 – 16/04/2015	Bernard BOURLÈS
PIRATA FR 26	THALASSA	07/03 – 13/04/2016	Bernard BOURLÈS
PIRATA FR 27	THALASSA	27/02 – 03/04/2017	Bernard BOURLÈS
PIRATA FR 28	THALASSA	27/02 – 05/04/2018	Bernard BOURLÈS
PIRATA FR 29	THALASSA	28/02 – 05/04/2019	Bernard BOURLÈS
PIRATA FR 30	THALASSA	16/02 – 31/03/2020	Bernard BOURLÈS
PIRATA FR 31	THALASSA	22/02 – 21/04/2021	Bernard BOURLÈS

=> What has been done in 2020-2021 « on the field » ?

## The PIRATA FR30 cruise:

**February 16 – March 31, 2020 (from Cabo-Verde to BREST due to Covid19)**

- (refer to the last year April 2020 meeting inputs...)

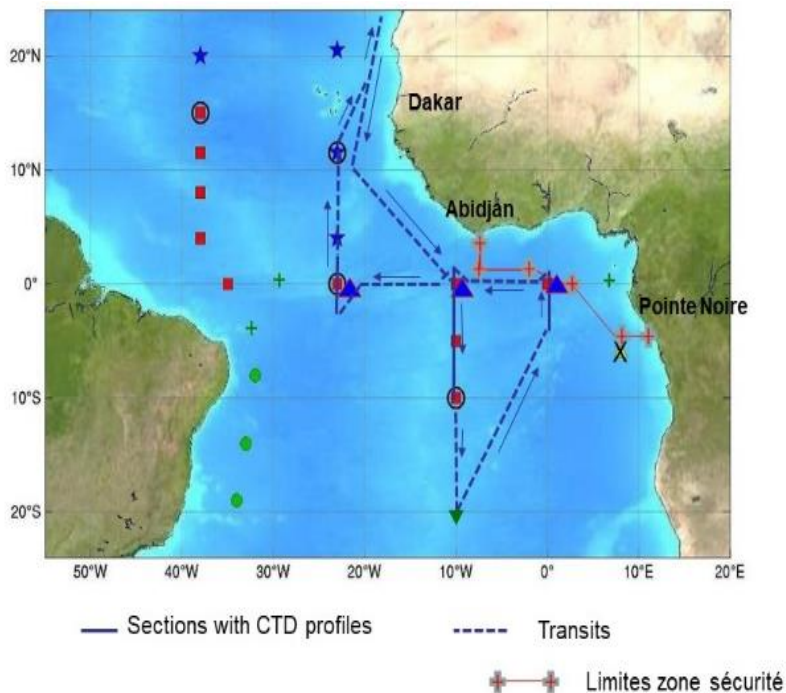


=> What has been done in 2020-2021 « on the field » ?

## The PIRATA FR31 cruise:

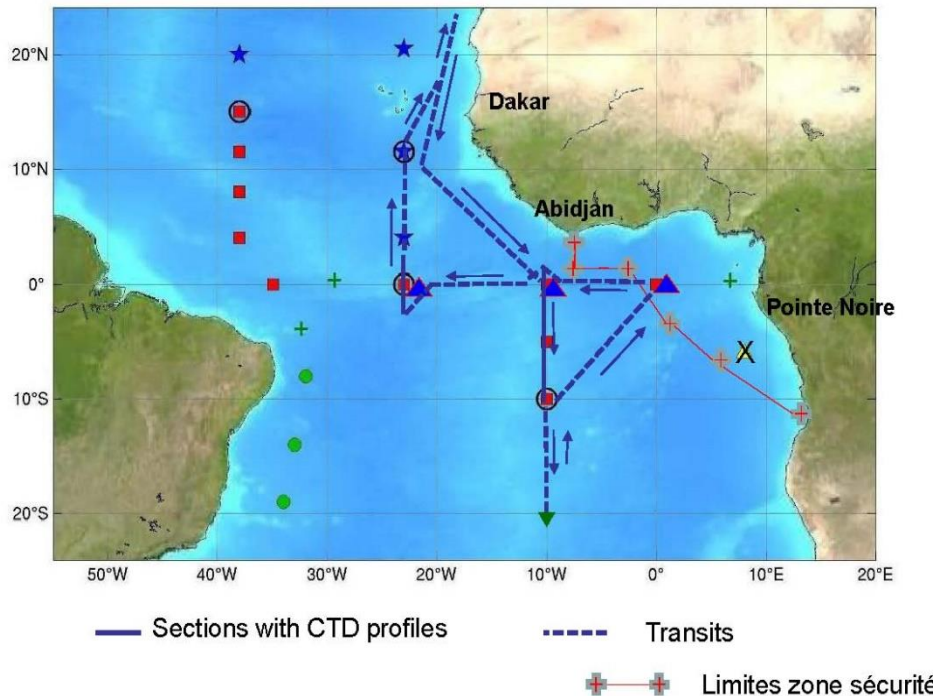
February 23 – April 19, 2021 (i.e. 55 days, from BREST to BREST due to Covid19)

### Expected plan:



### Effective plan... :

PIRATA FR31 : From Brest (go & back; Feb 23 – April 19)  
Sections CTD 23W, 10W, 0E  
(modified plan, March 17)



=> What has been done in 2020-2021 « on the field » ?

## The PIRATA FR31 cruise:

### Two major issues to deal with :

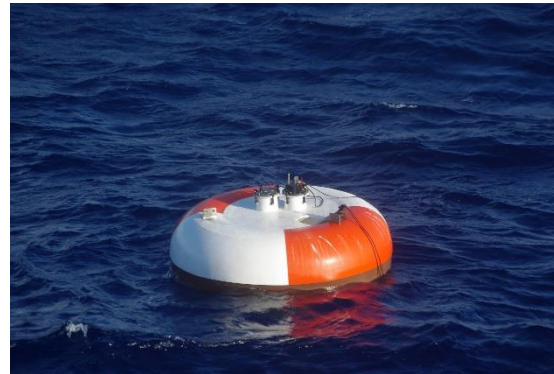
1): Tuna fisher's vandalism at 10S-10W:

March 14, servicing operations OK:



March 16: Bad data transmitted...

⇒ March 19: Back to the buoy => Fully beheaded  
*(one officer noted the presence of an Asian fishing vessel  
deploying Fish Aggregating Device with AIS when leaving on March 14)*



*(recall: same happened at 0N23W on 2019/12/25)*

=> What has been done in 2020-2021 « on the field » ?

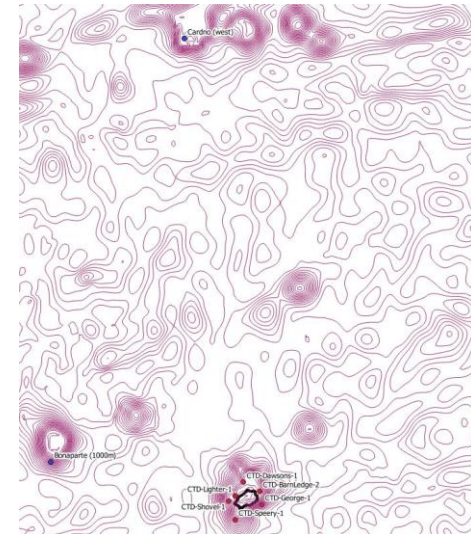
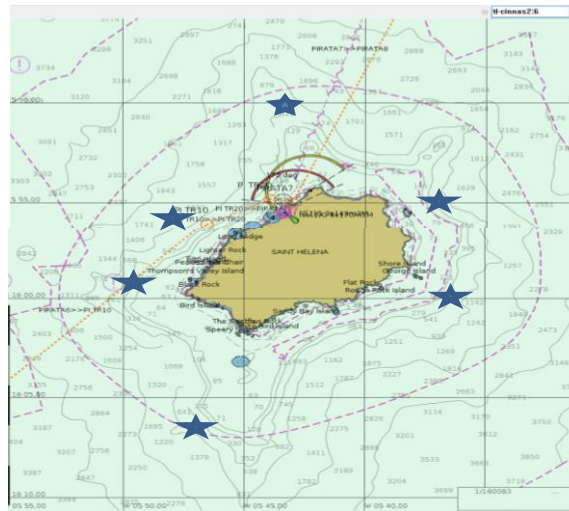
## The PIRATA FR31 cruise:

### Two major issues to deal with :

#### 1): Tuna fisher's vandalism at 10S-10W:

This event involved the cancellation of operations planned around St Helena Island for the local scientists and new potential collaborations

6 profiles CTDO2/ADCP around the Island + 2 above unexplored seamounts (Bonaparte & Cardno)+ collaboration and radio communication in the frame of the Blue Belt Programme and Marine Awareness Week





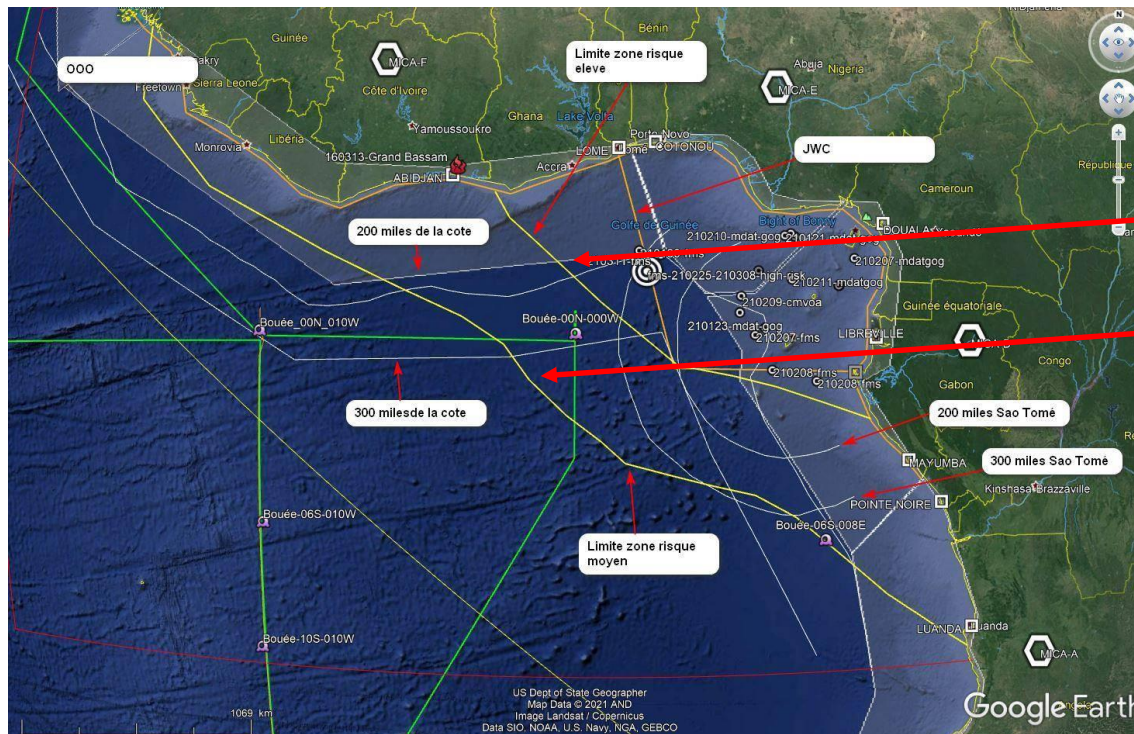
=> What has been done in 2020-2021 « on the field » ?

## The PIRATA FR31 cruise:

### Two major issues to deal with :

#### 2): Piracy Security Area extended in the Gulf of Guinea

March 18, message from Ifremer/Genavir Security Office informing us about the new security zone, imposed after 2 piracy activities South of Benin :



Previous area limits

New area limits, extended by 200nm...

*(certainly exaggerated, and without any concertation...).*

=> What has been done in 2020-2021 « on the field » ?

## The PIRATA FR31 cruise:

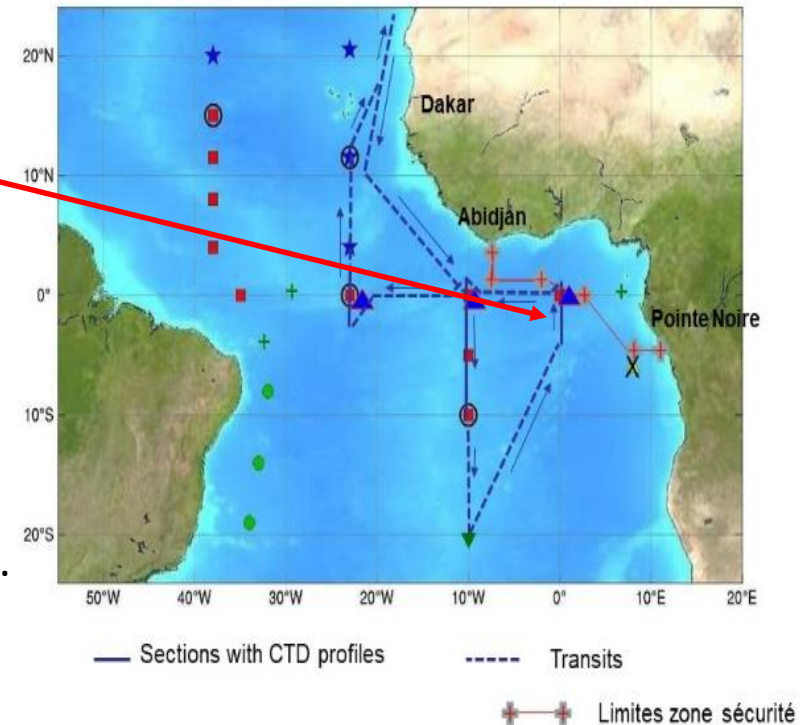
### Two major issues to deal with :

2): Piracy Security Area extended in the Gulf of Guinea

⇒ Cancellation of the 0°E CTDO<sub>2</sub>/LADCP section  
(from 4S to 1N)

⇒ After messages exchanges,  
and insisting explanations  
(data + ATLAS + ADCP moorings costs),

we finally got clearance to retrieve the moorings...



=> What has been done in 2020-2021 « on the field » ?

## The PIRATA FR31 cruise:

### Two major issues to deal with :

2): Piracy Security Area extended in the Gulf of Guinea

⇒ First hour of the retrieval operations in presence of a French Navy vessel...:



The « Dixmude »



### Questions are:

1) how about 2022 & will one be able to go back to 0-0 ?

Contact with French Navy ? (at now: wait & see!...)

2) Moving from 0E to 3W => Impact on predictions ?...

=> What has been done in 2020-2021 « on the field » ?

## The PIRATA FR31 cruise:

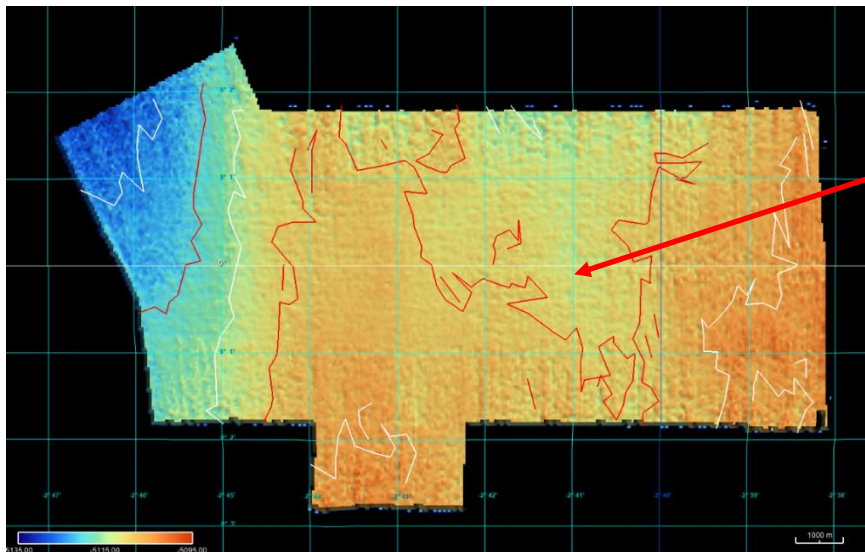
### Two major issues to deal with :

2): Piracy Security Area extended in the Gulf of Guinea

After consultation with SSG/PRB:

=> we decide to move the ATLAS mooring just out of the area (i.e. around 3°W)

=> Bathymetry survey (rather flat in the area, ~5100m depth)



ATLAS at 2°42'W

=> What has been done in 2020-2021 « on the field » ?

## The PIRATA FR31 cruise:

### Two major issues to deal with :

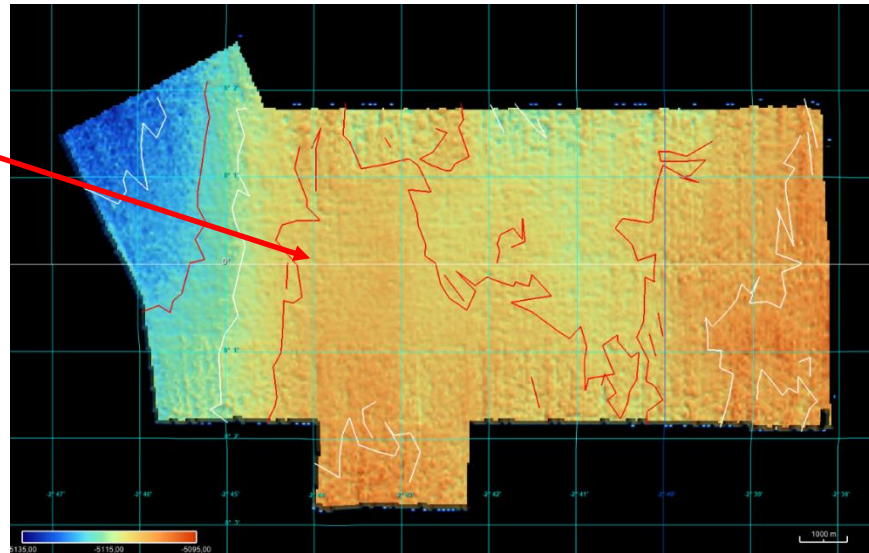
2): Piracy Security Area extended in the Gulf of Guinea

About the ADCP mooring:

It was not expected to replace it (no material onboard)...

=> there will not have data for the 2021-2022 period !

ADCP (in 2022)  
around 2°45'W



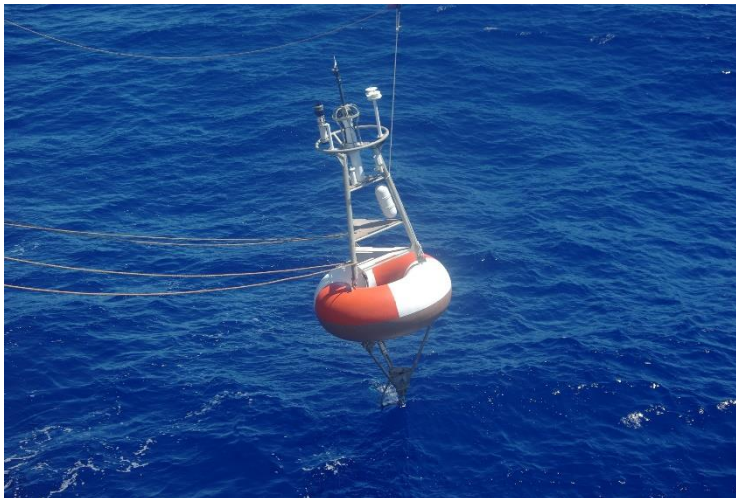
=> What has been done in 2020-2021 « on the field » ?

## The PIRATA FR31 cruise:

### Other infos about Pirata met-ocean moorings :

#### 1) 10°W-20°S:

No fishing activities observed around  
(*and no fishes...*)



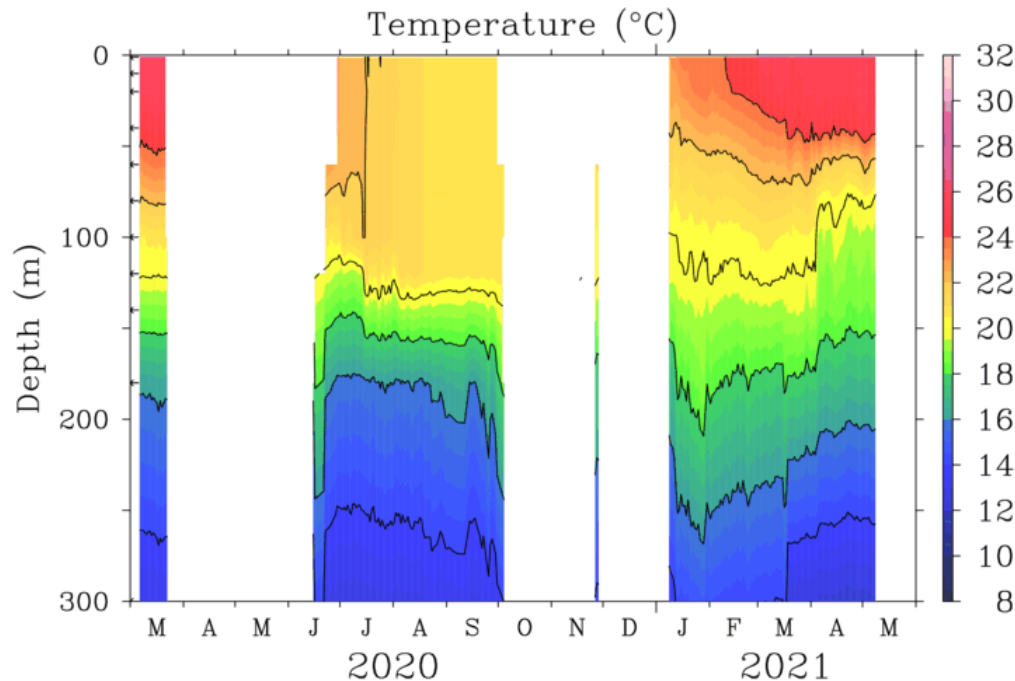
=> What has been done in 2020-2021 « on the field » ?

## The PIRATA FR31 cruise:

### Other infos about Pirata met-ocean moorings :

#### 1) 10°W-20°S:

#### Why ocean data were transmitted irregularly in 2020-2021?



Seems OK from  
March 17 after  
serviced.

=> What has been done in 2020-2021 « on the field » ?

## The PIRATA FR31 cruise:

### Other infos about Pirata met-ocean moorings :

#### 2) 23°W-0°N:

3 Brazilian fishing boats (~15m size, 7 people onboard, traditional fishing (hand line);

We delivered food to one of them



-Some damages (cables & connectors cut => hanging; ropes & fishing lines into the bridle...)

-They stayed around (at a reasonable distance) during our servicing operations, but came back around;

-We attempted to inform them about the importance of the buoys (eg no hanging)

But relatively weak damages if compared with tuna industrial fishers...

(refer to 1998-2008 years in the GG, off Congo in 2018-2019 & at 0N23W in 2019)



=> What has been done in 2020-2021 « on the field » ?

## The PIRATA FR31 cruise:

### Pirata met-ocean moorings summary :

- 3 ATLAS systems serviced:
  - 0°N-10°W (equipped with CO2 & 5 Xpods); 20°S-10°W; 0°N-0°E replaced at 2°42'W.

*Note 1: an Aquadopp has been added at 0°N- 2°42'W (2 devices purchased in 2020 with EU TRIATLAS funds & sent to PMEL in 2021)*

*Note 2: A fluorimeter has also been added at 0°N-10°W (purchased by IRD/LEGOS in 2020) at 55m depth (max fluo level)*

- 3 TFLEX systems serviced:
  - 6°S-10°W (equipped with CO2); 10°S-10°W; 0°N-23°W (equipped with 5 Xpods)
- Material loss at 10°S-10°W: all met sensors & upper tripod => cost ....
- 5 Xpods at 10°W and 23°W, equator, replaced.
- 6 OTN acoustic receivers replaced at 200m depth on each buoy;

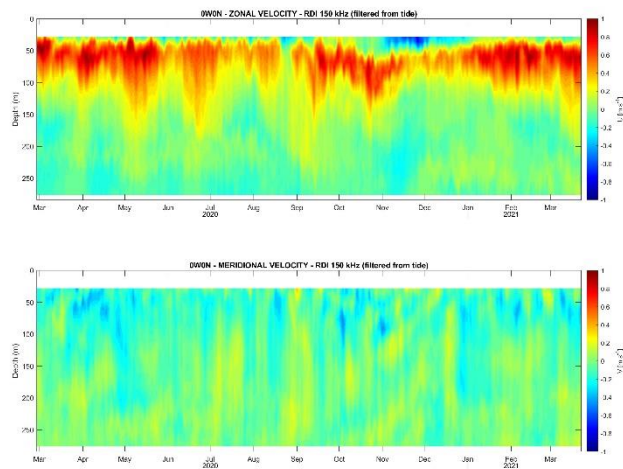
=> What has been done in 2020-2021 « on the field » ?

## The PIRATA FR31 cruise:

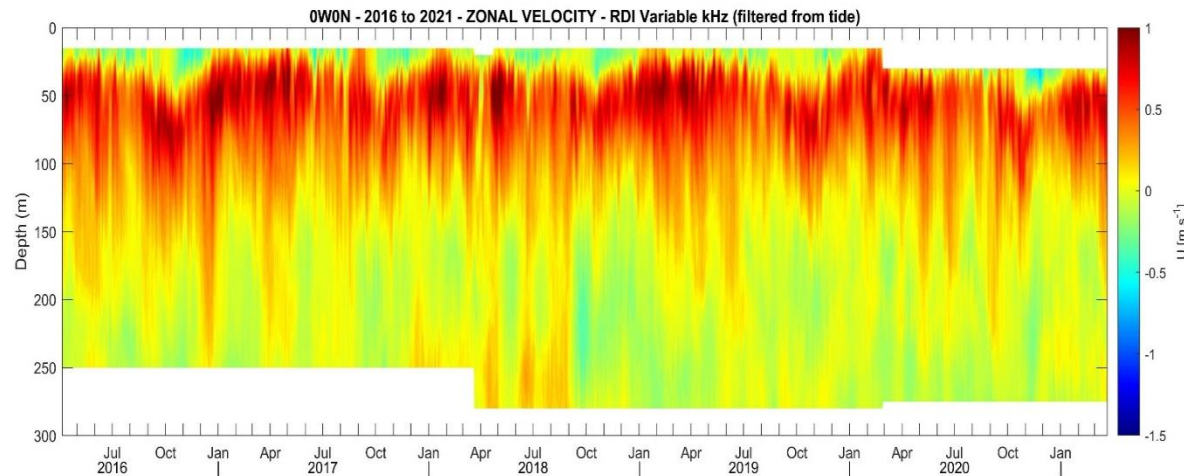
### ADCP moorings :

1): 0°N-0°E only retrieved... So, one year of data (2020-2021) but no 2021-2022 data....

U & V: March 2020-March 2021



U: Mars 2016 - Mars 2021



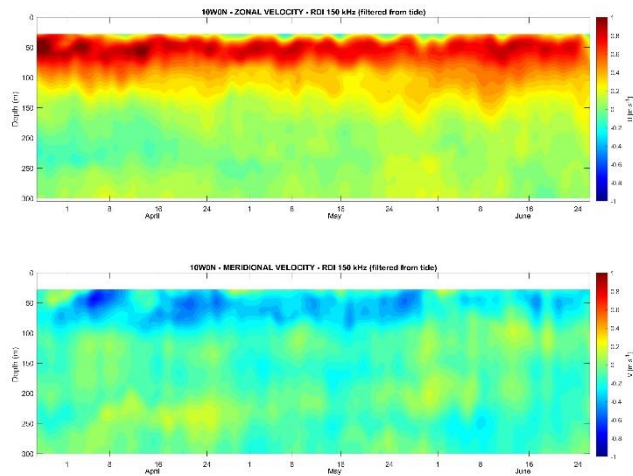
=> What has been done in 2020-2021 « on the field » ?

## The PIRATA FR31 cruise:

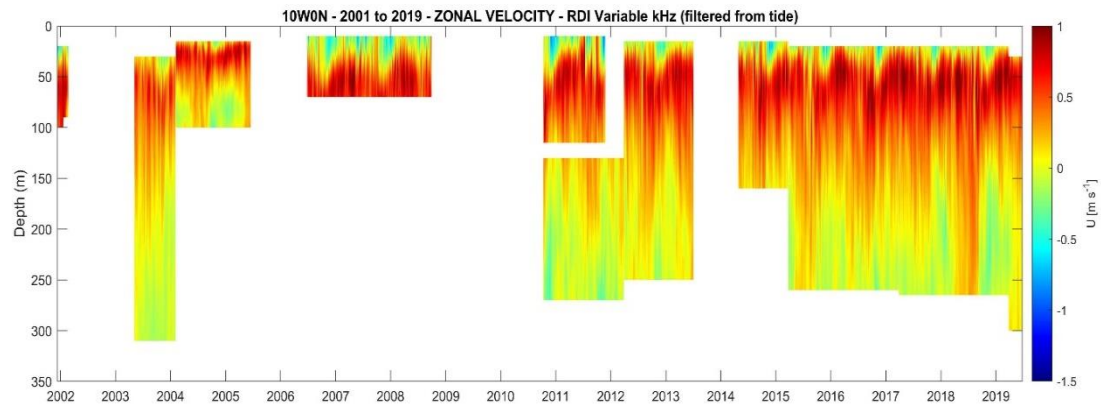
### ADCP moorings :

2): 0°N-10°W : An other bad news! ONLY 3 months registred (instead of 2 years) due to batteries failure (pb with RDI ?...).

U & V: March 2019-June 2019



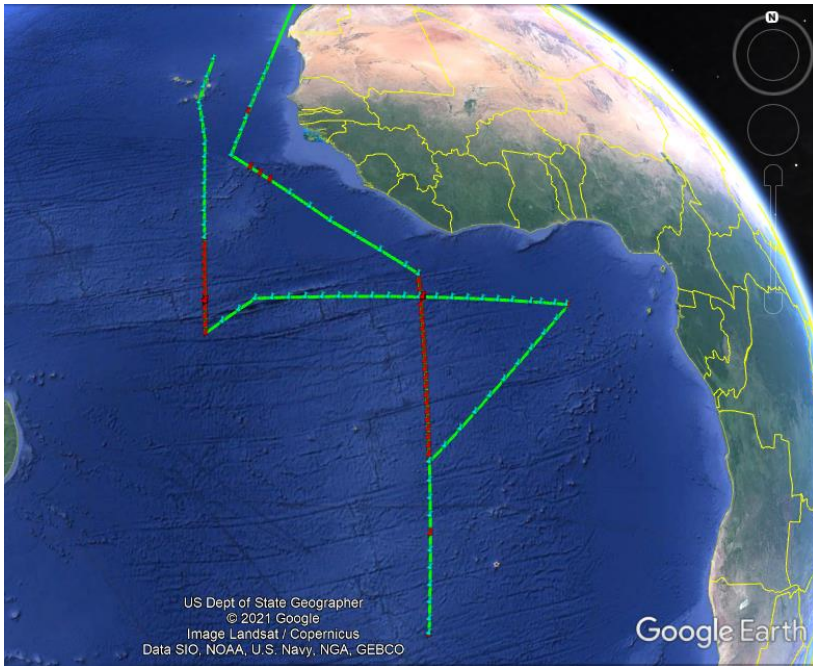
*U: January 2001 - June 2019*



=> What has been done in 2020-2021 « on the field » ?

## The PIRATA FR31 cruise:

### CTDO2/LADCP casts (in red on the map) :



### 78 profiles:

1x5000m : 0N-10W

3x4000m : close to some Deep Argo

38x2000m : 10W & 23W sections

2x1000m : Guinea Dôme

3x500m : sensors tests + Guinea Dôme

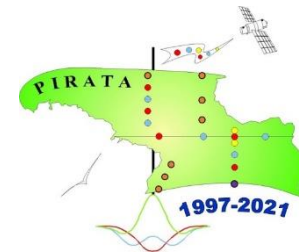
31x200m: profiles every 3h during 48h duration stations at 10W & 23W, Equator

### Sea water samplings for:

S, O<sub>2</sub>, nutrients, Chlorophyll pigments, DIC/TA, DIC/C<sub>13</sub>, O<sub>18</sub>, POC and ADN

Sensors: 1 p + 2 (T/C, O<sub>2</sub>), 2 fluorimeters,  
+ 1 transmissiometer Wetlab, 1 SBE35 (Precise T)  
+ 2 LADCP: 300kHz upward, 150kHz downward

=> What has been done in 2020-2021 « on the field » ?



## The PIRATA FR31 cruise:

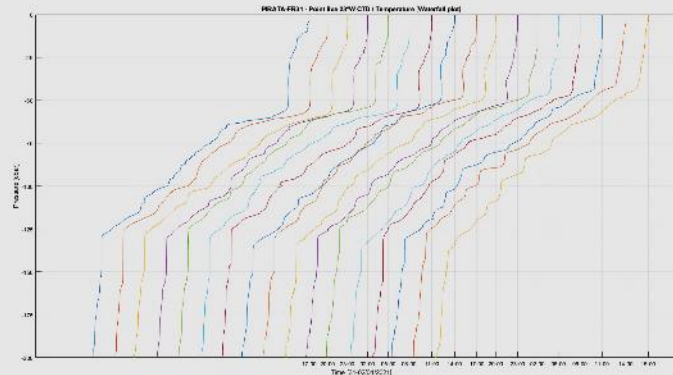
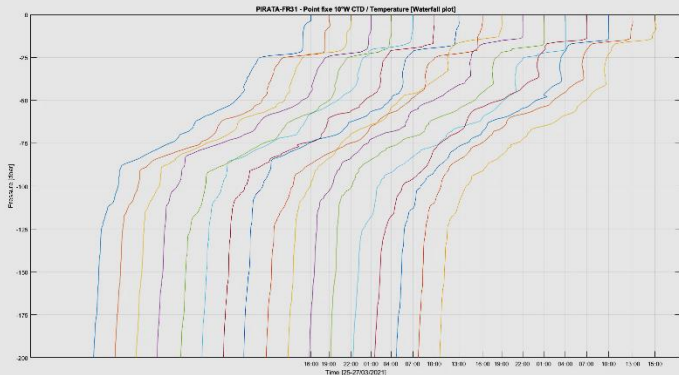
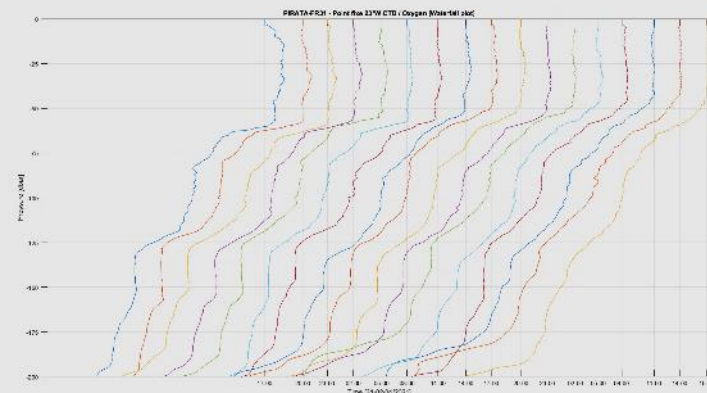
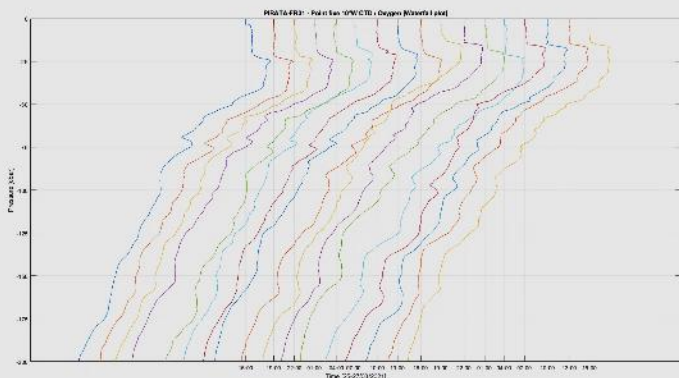
Example of O2 & T during 48h fixed stations

10W

23W

O2

T



# => What has been done in 2020-2021 « on the field » ?



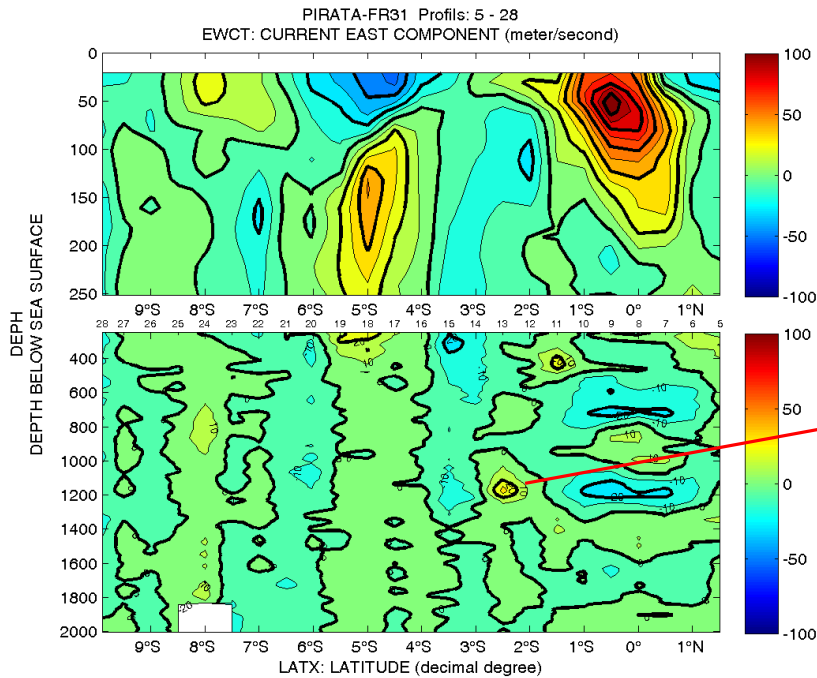
## The PIRATA FR31 cruise:

Example of O2 & T during 48h fixed stations

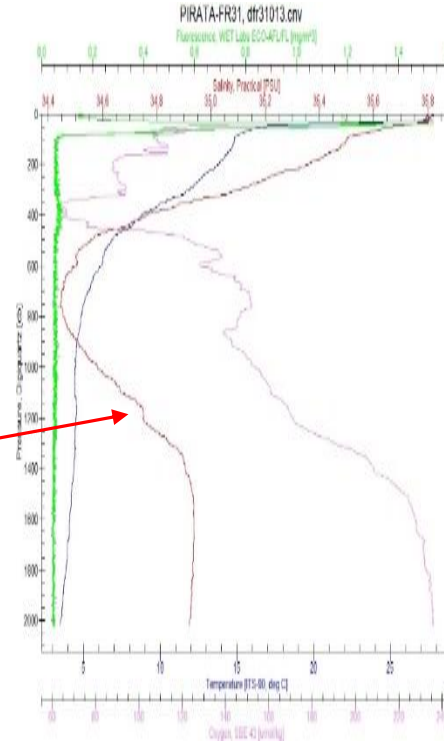
10W:

U (LADCP)

T, S, O2 at 2°30'S



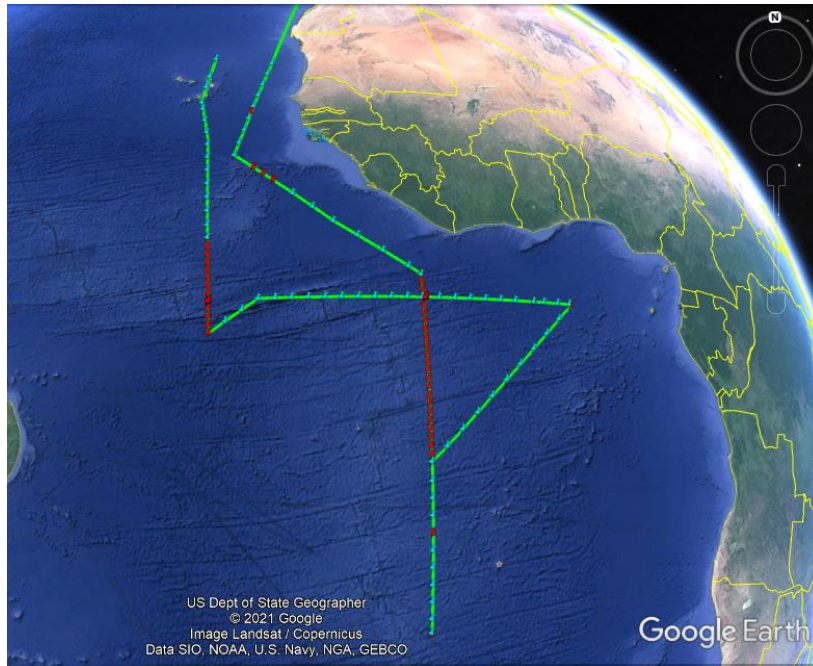
?



=> What has been done in 2020-2021 « on the field » ?

## The PIRATA FR31 cruise:

### Other profiles & samplings :



76 XBT profiles (in green on the map)

+

73 sea surface water samplings (S, nutrients, Chl pigments, DIC/TA, DIC/C13, O18, POC)

+

751 biological samplings at the buoys:

Barnacles: 390 (for microplastics; 225 for isotopes)

118 crabs, 15 worms, 3 bivalves,

77 tuna pieces (for Hg analysis in the food chain)

=> What has been done in 2020-2021 « on the field » ?

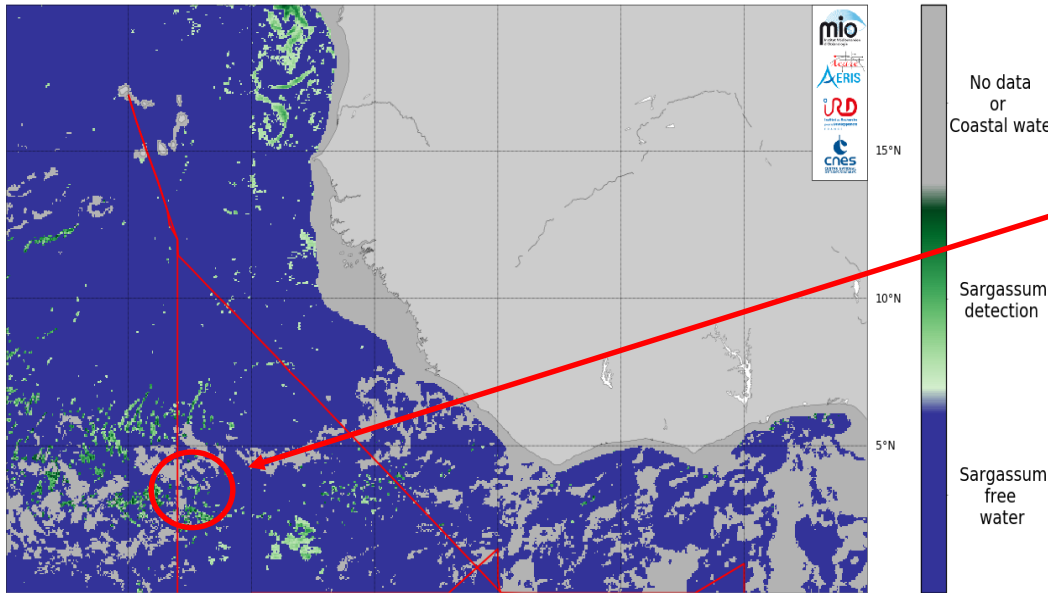
## The PIRATA FR31 cruise:

### Other samplings :

### Sargassum observation:



Cumulative Sargassum detections from 2021-03-24 to 2021-04-02



Mon Apr 5 04:00:10 2021 - Sargassum detection produced by Mediterranean Institute of Oceanography and AERIS/ICARE Data and Services Center using NASA MODIS data

37 samplings on (only) one slick  
(within eastward NECC flow):  
- 3 for pollutants & ADN,  
- 30 for chimio-taxonomy,  
- 4 for seaweed

+ sea surface water samplings:  
Nutrients, Chl, POC, ADN.

*2 labs involved:*

*LEMAR in Brest (V. Stieger)*

*MIO in Marseille (T. Thibaud,*

*V. Michotey, L. Berline, F. Ménard)*



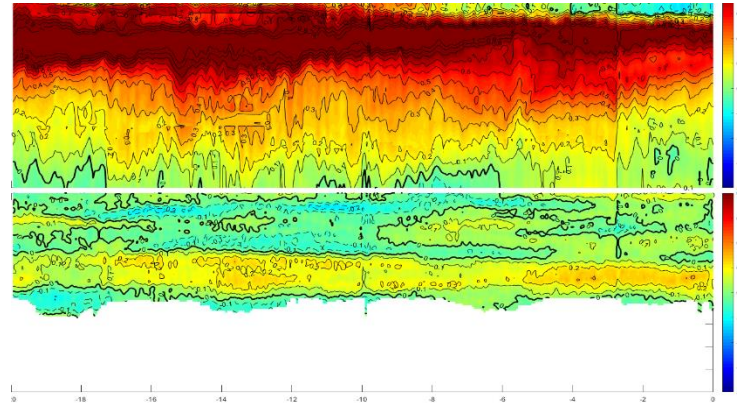
=> What has been done in 2020-2021 « on the field » ?

## The PIRATA FR31 cruise:

### Continuous measurements :

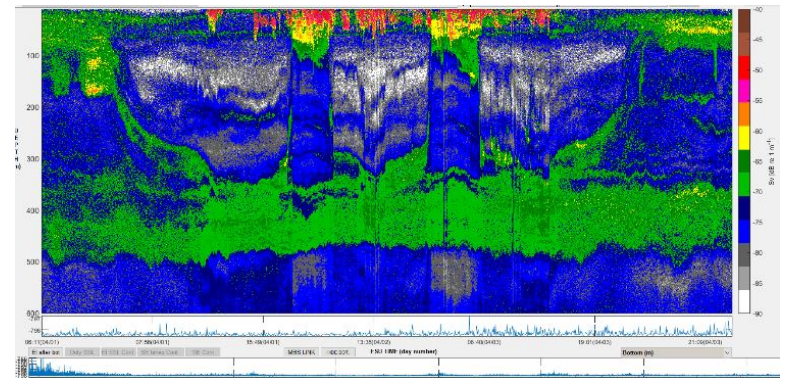
- S-ADCP: 38kHz, 150kHz and... 600kHz (but impossible to calibrate! So...).

*Ex: U along the equator between 0 and 20W:*



- Acoustic measurements (EK80, 6 frequencies):

*Ex: Measurements at 0N23W during 48h:*



+TSG, Ferrybox, meteo.

=> What has been done in 2020-2021 « on the field » ?

## The PIRATA FR31 cruise:

### In contribution to other programmes & observation systems:

#### 1) 23 SVP-B deployments (Meteo-France contribution to AtlantOS & DBCP)



*8 were also expected for NOAA, BUT issue with Iridium price increase by the NOAA's private VAR... => canceled and SVP back to US*

=> What has been done in 2020-2021 « on the field » ?

## The PIRATA FR31 cruise:

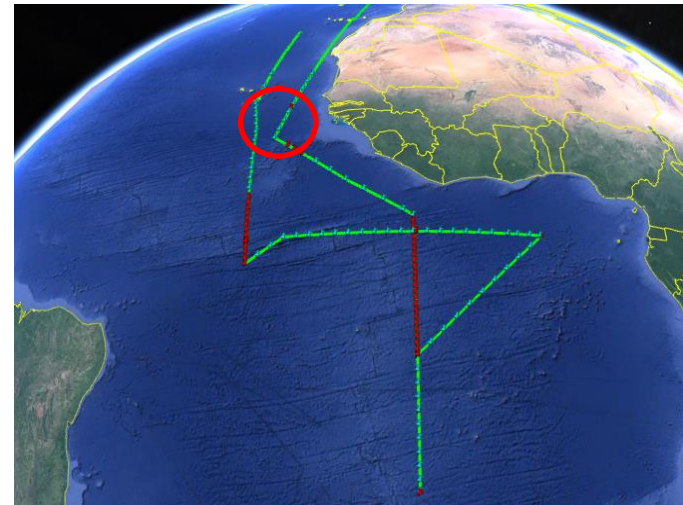
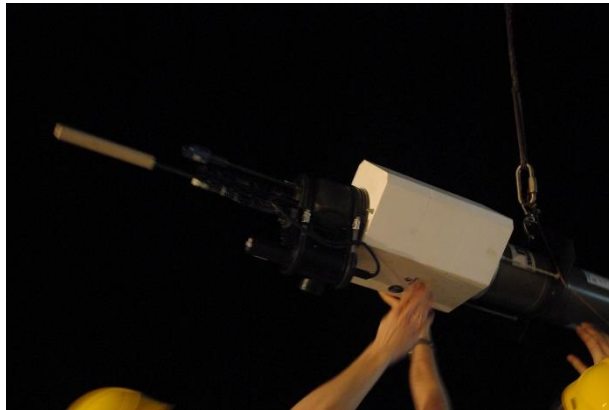
### In contribution to other programmes & observation systems:

2) ARGO profilers deployment: 12 (1DO, 5 ARVOR, 6 BGC)

↔ contribution to ARGO through 3 other programmes...

a) The SEANOX project (French funded LEFE; PIs: X.Capet -LOCEAN- & E.Machu -LOPS-):  
(study of the O<sub>2</sub> evolution from the Guinea Dome to West African coasts).

=> 1 DO (Oxygen) + 1 BGC (Biogeochemistry) in the Guinea Dome



=> What has been done in 2020-2021 « on the field » ?

## The PIRATA FR31 cruise:

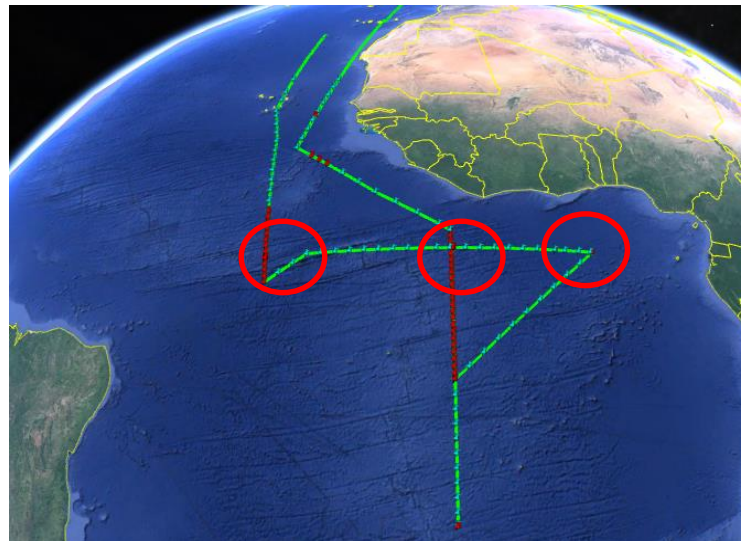
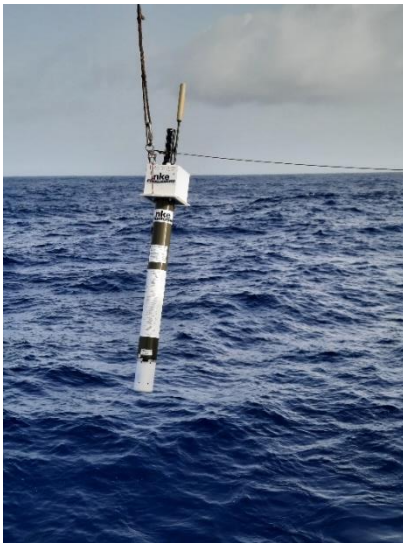
### In contribution to other programmes & observation systems:

2) ARGO profilers deployment: 12 (1DO, 5 ARVOR, 6 BGC)

⇔ contribution to ARGO through 3 other programmes ...

b) The PODIOM project ((French funded LEFE; PIs: S. Cravatte -LEGOS- & F.Gasparin -MERCATOR-):  
(diurnal cycle influence on mixed layer etc.)

=> 5 ARVOR deployed at 10W & 23W, equator; profiles every 3h during 14 days.



*48h fixed stations as a contribution to this program*

=> What has been done in 2020-2021 « on the field » ?

## The PIRATA FR31 cruise:

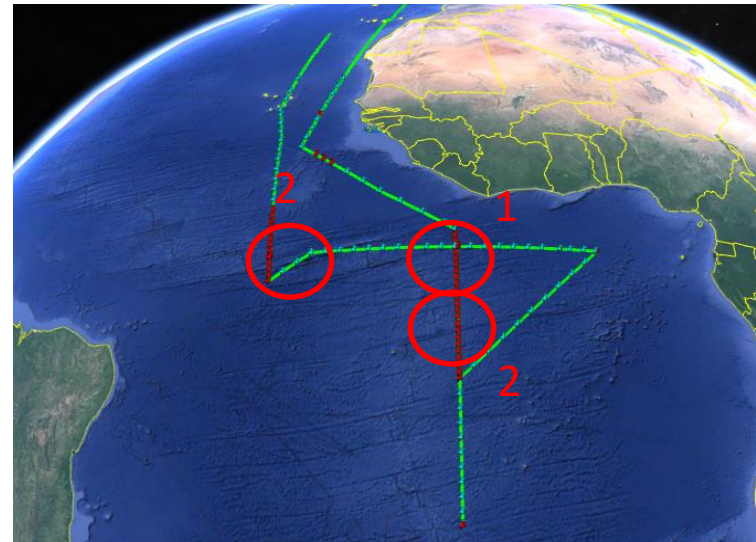
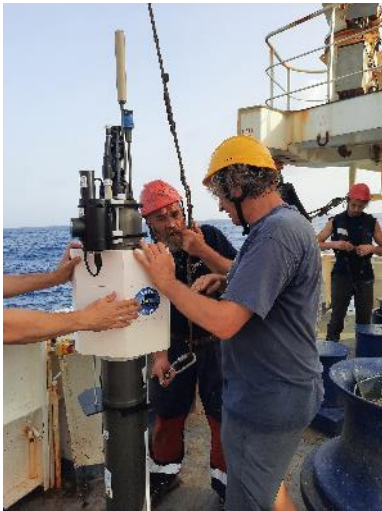
### In contribution to other programmes & observation systems:

2) ARGO profilers deployment: 12 (1DO, 5 ARVOR, 6 BGC)

⇔ contribution to ARGO through 3 other programmes ...

c) The EU EUROSEA program (contribution of LOV, PI L.Coppola)

=> 5 BGC profilers deployed close to CO<sub>2</sub> equipped buoys and along the equator



=> What has been done in 2020-2021 « on the field » ?

## The PIRATA FR31 cruise:

### In contribution to other programmes & observation systems:

3) + 1 DEEP-ARGO profiler (unexpected) retrieval...

A « prototype » deep profiler, deployed in Dec 2020 with 3 different T/C sensors, was no more under control through Iridium (Modem breakdown).

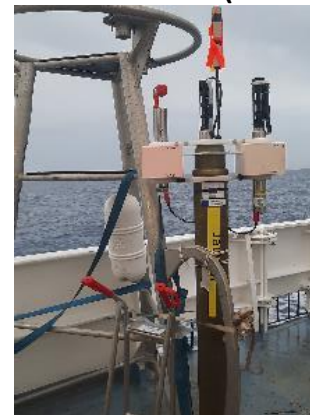
It was located NW of Canarias during our route back to Brest...

ONLY 15mn to find and retrieve it once its position transmitted and known...

A real « challenge » !

BUT WE DID IT...

*(at least one good news!)*



What have been done in 2020-2021 « in the lab » ?

Actualized French PIRATA website:

*<http://www.brest.ird.fr/pirata/>*

⇒ Information about cruises

⇒ Pirata related reports, presentations & documents (SSG...).

⇒ Easy access to in situ Pirata cruises data sets through DOI:

⇒ DOI for all PIRATA-FR cruises (yearly actualized)

⇒ Acoustic data with DOI (J.Habasque et al., yearly actualized from 2020)

⇒ L-ADCP data set with DOI (P. Rousselot et al., yearly actualized from 2019)

⇒ Chemistry data sets with DOI (B.Bourlès, et al. yearly actualized from 2018)

⇒ S-ADCP data set with DOI (B.Bourlès, et al. yearly actualized)

⇒ ADCP moorings data set with DOI (B.Bourlès, et al. yearly actualized)

⇒ CTD-O2 data set with DOI (B.Bourlès, et al. yearly actualized)

⇒ **Water isotopes data set with DOI (G.Reverdin et al., NEW, 2021)**

PIRATA-FR data DOI : 10.18142/14

<https://campagnes.flotteoceanographique.fr/series/14/>

## What have been done in 2020-2021 « in the lab » ?

### Some scientific activities (not exhaustive...):

⇒ Related (Pirata and/or Tropical Atlantic) publications:

- Assene, F., et al. From mixing to the basin scale circulation: how the inverse cascade is involved in the formation of the subsurface currents in the Gulf of Guinea, *Fluids*, 2020, 5, 147; doi:10.3390/fluids5030147.
- Radenac, M.H. et al., Physical drivers of the nitrate seasonal variability in the Atlantic cold tongue., 2020, *Biogeosciences*, 17, 529–545.
- Delpech A., et al.. Influence of oceanic conditions in the energy transfer efficiency estimation of a micronekton model. 2020, *Biogeosciences*, 17(4), 833-850. <https://doi.org/10.5194/bg-2019-353> .
- Houndegnonto, O. J., et al. Seasonal variability of freshwater plumes in the eastern Gulf of Guinea as inferred from satellite measurements, *J. Geophys. Res.-Oceans*, 2021, doi : 10.1029/2020JC017041
- Alory, G., et al., Coastal Upwelling Limitation by Onshore Geostrophic Flow in the Gulf of Guinea around the Niger River Plume. 2021, *Frontiers in Marine Science*. 10.3389/fmars.2020.607216.
- Jouanno et al., Evolution of the riverine nutrient export to the Tropical Atlantic over the last 15 years: is there a link with Sargassum proliferation ?. 2021, *Env. Res. Letters*.
- Gévaudan, M., et al., . Influence of ocean salinity stratification on the tropical Atlantic Ocean climate. 2021, *Clim Dynamics*.
- Berline L. et al., Hindcasting the 2017 dispersal of Sargassum algae in the Tropical North Atlantic. 2021, *Marine Pollution Bulletin*.
- Lefevre, N., et al., Ocean Circulation Drives the Variability of the Carbon System in the Eastern Tropical Atlantic, *Oceans* 2021, 2, 126–148. <https://doi.org/10.3390/oceans2010008>.

Others (vulgarization):

- Bourlès, B., J. Llido, F. Hernandez, H. Giordani, P. Dandin, Lancement de la 31ème mission océanographique de L'observatoire PIRATA, in « Meteo et Climat Info », Meteo-France, 2021.



## What have been done in 2020-2021 « in the lab » ?

### Some scientific activities (not exhaustive...):

#### PhD:

- Manon Gévaudan, LEGOS (J. Jouanno & F. Durand), end in 2021. TA salt stratification & BL.
- Djoirka M. Dimoune, UFPE (M. Araujo, F. Hernandez), end in 2021. West Tropical Atlantic Circulation
- Houndegnonto, J.O., UBO (N. Kolodziejczyk, C. Maes), end in 2021. Fresh Water Plumes in the GG.
- Ngakala, R., UAC (Cotonou; G. Alory, C. Da-Allada ). Cono upwelling (2020-2023),

#### Post docs:

- Dante Napolitano (Br; LEGOS): EUC and island effects in the GG
- Fanny Chenillat (LEGOS): Surface Chl and var. modes in the TA

#### Training periods :

- 2021 M2 Cotonou : Dame Gueye, Ocean dyn. Role on the North TA pattern (J. Jouanno)
- 2021 M2 Cotonou : yissi, F geo-ingeneering impacts on the SST seasonal cycle in the North GG, (C.Da Allada)
- 2021 M2 Cotonou : Dingong Atoukoh, T.G., Wave energy distribution in Gulf of Guinea (F. Bonou)
- 2021 M2 Cotonou : Houndefo, C., mesoscale eddies impact thermohaline structure (Y. Morel, A. Chaigneau)
- 2021 M2 Cotonou : Ngo Nola, M.D., BGC properties variability in the GG (F. Chenillat)
- 2021 M2 Cotonou : Nyemb Yegba, A.T., SST HF variability North of the GG (V. Kone, Z. Sohoun)
- 2021 M2 Cotonou : Tope G.D.A., coastal water warming by the Niger River (G. Alory, C. Da-Allada, S. Djakouré)
- 2021 M2, Toulouse : Adrien Laval, F. Gasparin/Mercator; diurnal cycle & mixing
- 2020 M2 Cotonou: Agada, H.J., 2012 cold event North of the GG (C. Da Allada)
- 2020 M2 Cotonou : Capo-Chichi, E. (Cotonou), geo-ingeneering impacts on the BL North of the GG (C. Da Allada)
- 2020 M2 Cotonou : Kouogang Tchuenkam, F.C. (Cotonou), NBC rings : vertical decoupling (X. Carton)
- 2020 M2 Cotonou : Mongue Sissako R.S.J., (Cotonou), Angola Dome obs., (G. Alory, C. Da-Allada)
- 2020 M2 Cotonou : Tiam, M., (Cotonou) vertical large scale velocity in the Atl., (A. Lazar)

## A few words about PIRATA & EU projects:

### 1) **TRIATLAS:**

80k€ available in 2020... changes in sensors demand accepted by ED (it was first for 6S8E the buoy & ADCP mooring...).

- 2 Aquadopp currentmeters for 0N-0E Pirata buoy: 20,000; => purchased.
- 6 T/C sensors SBE-37-IMP for 0N-0E and 6S-10W Pirata buoys: EUR 36,000;
- 2 SBE37-ODO (O<sub>2</sub>) sensors for 0N-10W buoy : EUR24,000 : => purchasing goin on (market)

### 2) **EUROSEA:**

IRD (Fabrice Hernandez), UERJ (Leticia Cotrim) and UFPE (Moacyr Araujo) are involved in the WP7 of the EU EuroSea project ([www.eurosea.eu](http://www.eurosea.eu)), aiming to demonstrate the interest of other CO<sub>2</sub> platforms in the Tropical Atlantic ocean.

Process fur purchasing a CARIOCA CO<sub>2</sub> sensor is going on; to be implemented on the 8N/38W PIRATA-BR buoy.

The EU Blue Growth EuroSea project (2019-2023), like TriAtlas are legacy of the AtlantOS project.

## New perspectives for PIRATA in France ?

1) The IRD Service Unit « IMAGO » (in Brest) provides the « human and technical » support for PIRATA with its engineers.

- Recrutement at IRD/US IMAGO of a « chemistry engineer » : Mr Thierry CARIOU joined IMAGO in Brest in October 2020; He will allow to maintain the nutrients analysis (F.Baurand will retire in 2022...) and could also propose additional types of chemical analysis from 2022.

- Jacques Grelet is supposed to make a 2 months visite in Recife in fall 2021 (for training about data acquisition, treatment etc... linked to PIRATA).

2) Strong contributions of PIRATA to other new nationale projects (as previously shown): SEANOX (LOPS, LOCEAN), PODIOM (LEGOS, MERCATOR), FORESEA (Sargassum), ALTIETAO (Gulf of Guinea) and with other labs.

But also to TRIATLAS, EUROSEA, and EUREC4OA

=> One need more communications & collaborations between involved labs...

## New perspectives for PIRATA in France ?

3) Florent Gasparin applies to 2 positions:

- Researcher at IRD (research project linked to PIRATA & Trop Atl)
- CNAP as support to PIRATA

*(many thanks to Mike & Moacyr who provided support letters!).*

We cross the fingers... *(responses expected by late June)*

4) Changes in the SSG/PRB composition (as will be discussed tomorrow);

- IRD: Frédéric Marin replaces Alexandre Ganachaud in the PRB
- Meteo France: Hervé Roquet replaces Philippe Dandin in the PRB
  
- Jérôme Llido (coordinator PIRATA-FR) joins the SSG.
- Bernard Boulès stays for one (last) additional year before being replaced

Recall (info from 2020) :

Inputs (from Daniel Gaertner, IRD/MARBEC, Sète) about tuna fishing in the Atlantic.

in the case of Brazil this fishery concerns trolling and hand line fishing. It has increased in recent years and seems to be the cause of the very large increase in Brazil's bigeye catches (when the bigeye quotas were established by CPC at ICCAT Brazil was fishing less than the threshold established at the time, which enabled it to escape these measures and increase its catches; which of course is strongly criticized by the CPCs subject to the quota). Scientific contacts in Brazil are Paulo Travassos [pautrax@hotmail.com](mailto:pautrax@hotmail.com) & Gelson Da Siva : [guelson@ufersa.edu.br](mailto:guelson@ufersa.edu.br) . I don't think the EU has a fisheries agreement with Gabon. On the other hand, it is likely that there are private fishing agreements and that the 2 professional organizations of Spanish purse seiners (OPAGAC and ANABAC) as well as the vessels of CPCs of convenience sheltering purse seiners belonging to Spanish shipowners (Guatemala, Salvador, Panama , Belize) fish in the Gabonese EEZ.

I do not think there is a resolution by ICCAT similar to that of the IOTC on the prohibition of fishing near an oceanographic buoy. However, this should be checked with the Executive Secretary of ICCAT: Camille Jean Pierre Manel : [camille.manel@iccat.int](mailto:camille.manel@iccat.int)

If not, and therefore considering asking for the same type of regulation as in the O. Indian, it is difficult that the Pirata program can directly request it from ICCAT. FAO, for example, should be the bearer of this request, unless it goes directly through the CPC Delegations, which have the possibility of proposing regulations during the ICCAT Commission meeting. Without excluding the first possibility, this second solution seems to me the most logical. Of the three countries carrying Pirata: France, Brazil, USA, only Brazil could have a measured opinion on this proposal. I can hardly see the USA opposing it and France either as a direct ICCAT CPC (under St Pierre and Miquelon) or as a member of the "European Union" CPC can put this on the table. In both cases (St Pierre and UE) you have to go through the Department of Fisheries and Aquaculture (DPMA) via Tristan Diefenbacher: [tristan.diefenbacher@agriculture.gouv.fr](mailto:tristan.diefenbacher@agriculture.gouv.fr) & Benoit Archambaud : [benoit.archambault@agriculture.gouv.fr](mailto:benoit.archambault@agriculture.gouv.fr)

It is not impossible that Gabon, which is not in favor of the development of purse seine fishing in its waters and in particular under FADs but which happily gives private fishing rights to armaments, supports this type of resolution as well as other African CPCs (contacts at the highest level of fisheries administrations are to be seen with the DPMA or DG Mare). In case of reluctance by CPCs, there is the alternative of NGOs which, although they cannot propose a resolution, speak orally and in writing during the Commission.

Before implementing all of this, the easiest way would be to send a letter / email to the representatives of the Professional Organizations of European armaments in the purse seine so that they can send this good practice information to their crews: Michel Goujon, Director Orthongel ([mgoujon@orthongel.fr](mailto:mgoujon@orthongel.fr)); for OPAGAC: Julio Morón ([julio.moron@opagac.org](mailto:julio.moron@opagac.org)) or his assistant Miguel Herrera ([miguel.herrera@opagac.org](mailto:miguel.herrera@opagac.org)); for Anabac I don't know who the director is but the email seems to be: [anabac@anabac.org](mailto:anabac@anabac.org)



***OBRIGADO / THANKS / MERCI***