ABM Workshop

Use Of ABM

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Lisbon

4th of December 2019

French organization for ABM

- Differents ABM administrators for the differents organizations which have interest in ABM (Customs, Navy, Maritime Gendarmerie, Maritime Affairs)

- The directorate for Maritime Affairs is managing the ABM alarms for MRCCs. Management is done by the same team than the one which works on SSN matters.

Objective : have a better view/give better advices on ABM possibilities

- Today : 4 (on 5) metropolitan MRCCs and 3 overseas are using ABM alarms.

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Evolution 2018→ 2019

March 2018

Type	CROSS	NB
DistanceToShore	Réunion	4
Drifting	Jobourg	4
InArea	Etel	2
NotReporting	Gris-Nez	5
SpeedAnomalyOverPeriod	Réunion	9
SuddenChangeOfSpeed	Gris-Nez	5
	Jobourg	4
		33

March 2019

Type	CROSS	NB
AnchorageOutsidePort	Etel	2
DistanceToShore	Réunion	4
Drifting	Etel	3
	Jobourg	4
FromAreaToArea	Gris-Nez	1
InArea	Etel	3
	Papeete	4
NotReporting	Gris-Nez	7
SpeedAnomalyOverPeriod	Antilles-Guyane	2
	Papeete	3
	Réunion	9
SuddenChangeOfSpeed	Etel	2
	Jobourg	3
		47

November 2019

Type	CROSS	NB
Anchorage	Jobourg	1
AnchorageOutsidePort	Etel	4
DistanceToShore	Réunion	4
Drifting	Etel	3
	Jobourg	6
FromAreaToArea	Gris-Nez	1
HeadingToShore	Corsen	1
InArea	Corsen	2
	Etel	3
	Papeete	8
NotReporting	Gris-Nez	7
SpeedAnomalyOverPeriod	Antilles-Guyane	3
	Corsen	4
	Papeete	4
	Réunion	10
SuddenChangeOfHeading	Corsen	1
	Gris-Nez	5
SuddenChangeOfSpeed	Etel	4
	Jobourg	5
		76

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How we process

- An MRCC (the officer in charge of navigation safety and/or the navigation safety shift manager) express the need of an alarm to the dedicated team (where/zone, which kind of ships, which objectives)
- The team :

- analizes the need and asks precisions if necessary

- Evaluates, according to knowledge of previous/others alarms (MRCCs or tests done by the team itself) if the alarm seems to be adapted to the objectives

- makes tests of the alarm **on the team account**, in order to check if the paramaters are **suitable** to detect the situation and if the **number of alarms** per day is **acceptable** for the operators who will have to treat them

- makes ajdustements if necessary, before to send the alarms on the user's account

→ *important steps so that the recipients can have a **better confidence** in the alarms*

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How we process

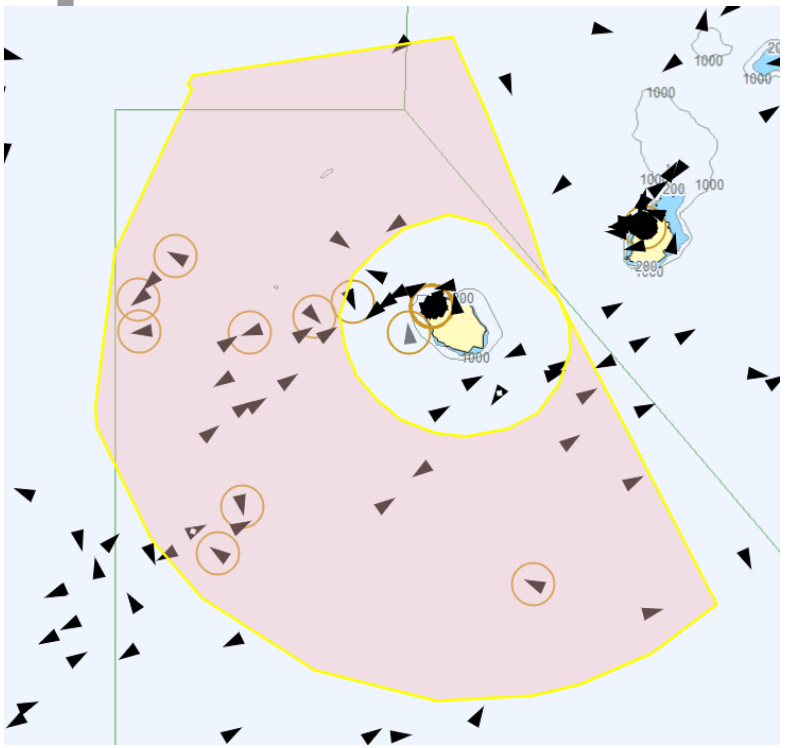
- For the alarms that were existing before the (new) team starts to work on this subject, they have been reviewed one by one in order to improve relevance and to limit the number of parasitic alarms

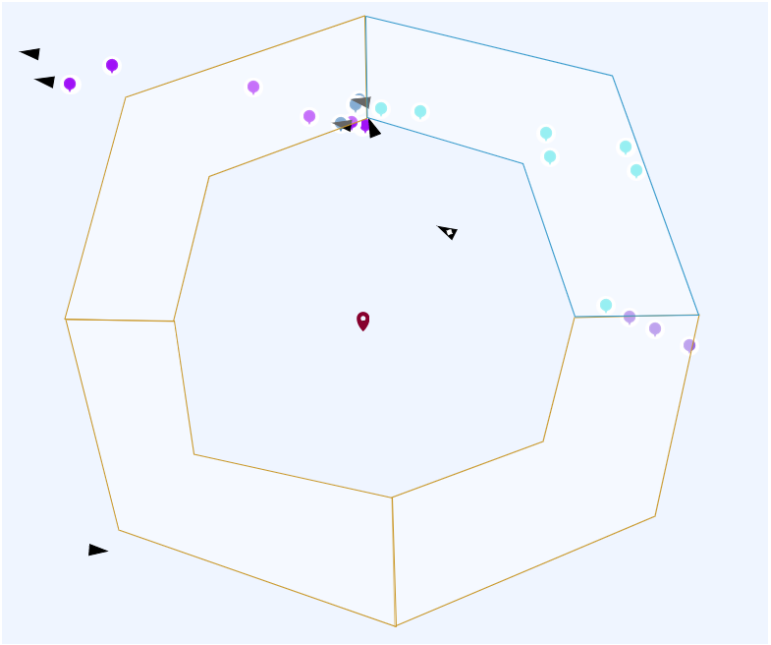
- Regular reviews are also done on all the existing alarms in order to share the benefits of what has been learn on others, and the alarms adjusted were necessary

Some examples

- **Construction of original forms**

The « donut » of La Reunion : in red= the area of interest= **only one zone**





- With an InArea : having the information of « where » the alarm is located with the name of the alarm associated with the polygon(NW, SW,SE, NE)
- Strip cutting in order to avoid multpiles parasitic alarms

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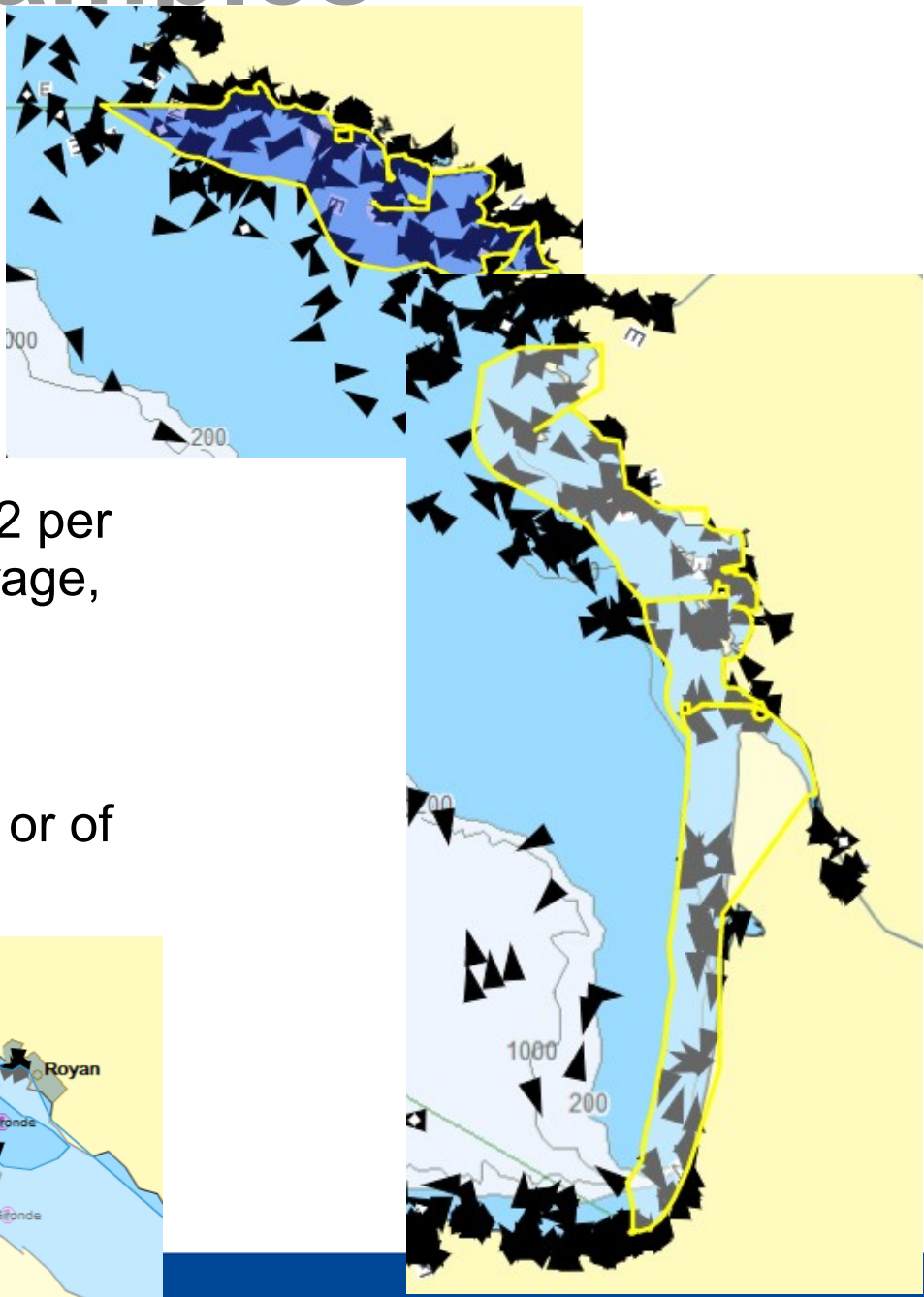
Some examples

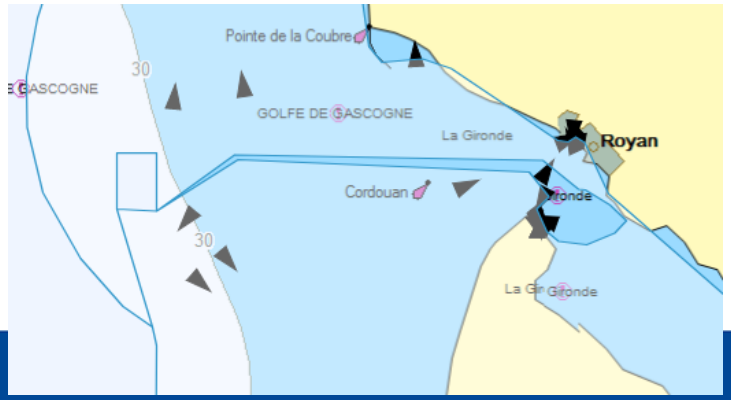
- **Some areas of interest not so small**

Coastal areas for MRCC Etel : the coastal area has just been divided in two parts



- Not so much resultant alarms : 1 to 2 per area and per type of alarms (anchorage, suddenchange of speed).
- How ?

→ special exclusion of mooring zones, or of access channels to ports



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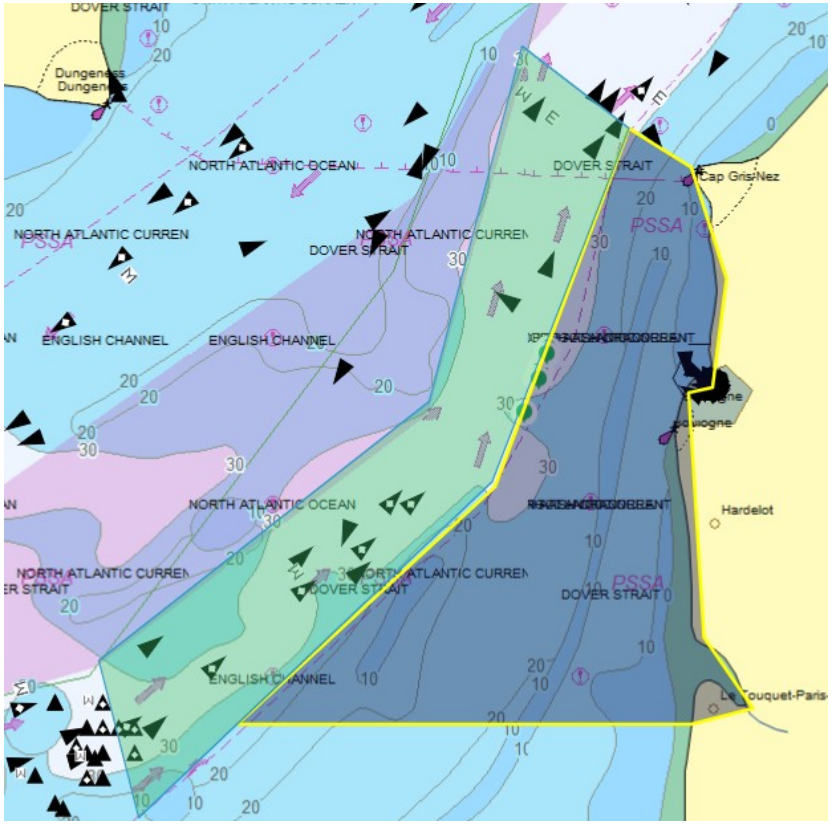
Some examples

- Some alarms « adapted » : use of an alarm FromAreaToArea where an alarm HeadingToShore could not be used :

Distance between coast and channel not regular, and very « short » in the north part, so no possiblity to use the HeadingToShore in order to have the information with enough anticipation

So Use Of FromAreaToArea from green part to grey part, to detect the ships that would « miss » the turning point



Some difficulties

- Frequency of positions for SAT-AIS et LRIT, where no T-AIS available→ some alarms are inoperative or inaccurate ; best to use in those areas *Speed Anomaly* instead of *sudden change of speed*

- Some differences between two positions sources, that lead to undue alarms :

Timestamp	Latitude	Longitude	Heading	Speed	Source
2019-03-05 00:05:5	50°18'30"N	000°13'57"W	196.9°	18.9 KNOTS	T-AIS
2019-03-05 00:11:5	50°16'40"N	000°14'49"W	196.4°	19.3 KNOTS	T-AIS
2019-03-05 00:17:5	50°14'49"N	000°15'39"W	195.8°	19.5 KNOTS	T-AIS
2019-03-05 00:23:5	50°12'55"N	000°16'30"W	196.8°	19.6 KNOTS	T-AIS
2019-03-05 00:27:1	50°11'48"N	000°16'54"W	196°	9.5 KNOTS	Sat-AIS
2019-03-05 00:27:1	50°11'48"N	000°16'54"W	196°	9.5 KNOTS	Sat-AIS
2019-03-05 00:29:5	50°11'03"N	000°17'22"W	196.5°	19.6 KNOTS	T-AIS
2019-03-05 00:31:5	50°10'27"N	000°17'40"W	198.9°	19.6 KNOTS	T-AIS
2019-03-05 00:33:1	50°10'00"N	000°17'53"W	199°	9.5 KNOTS	Sat-AIS
2019-03-05 00:36:0	50°09'11"N	000°18'20"W	198°	19.6 KNOTS	T-AIS
2019-03-05 00:40:2	50°07'51"N	000°19'06"W	201.2°	19.4 KNOTS	T-AIS

Extract of the ship track after a sudden change of speed alarm

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