

Spanish Search and Rescue, Maritime Traffic Control & Pollution Fighting

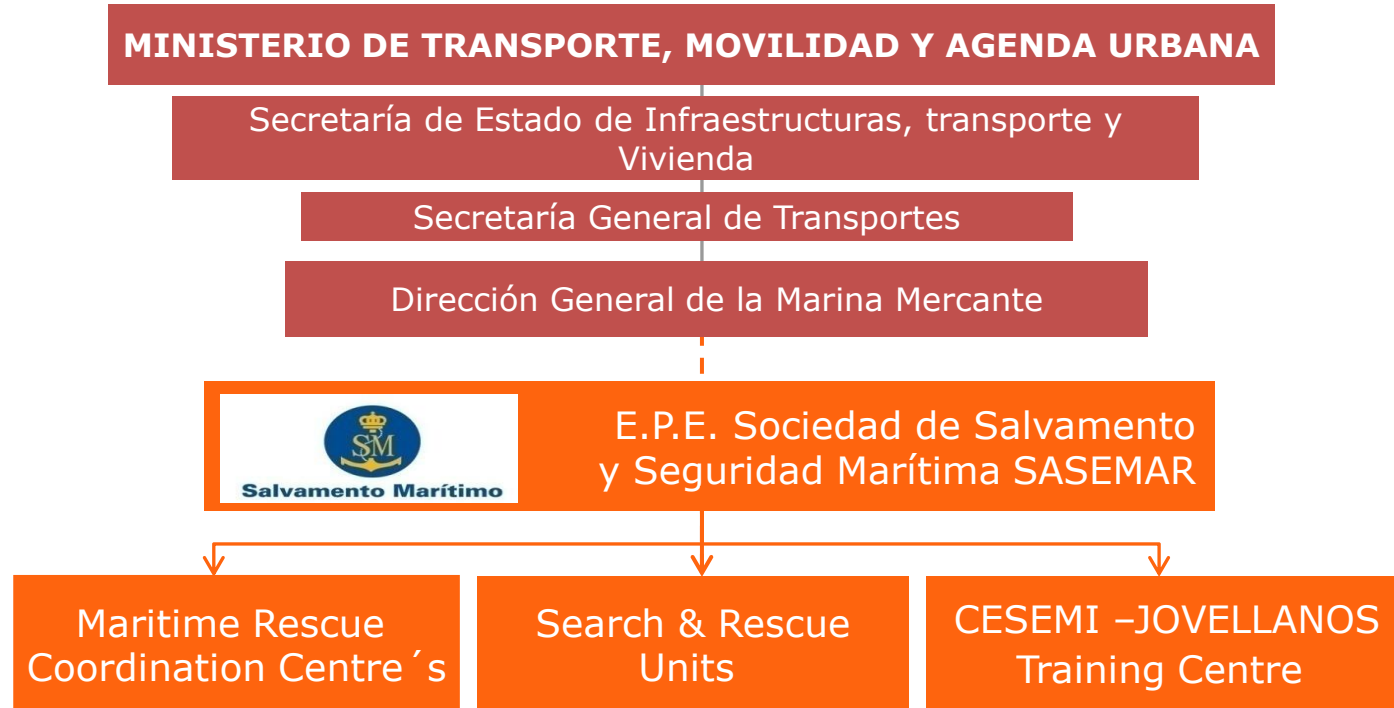


**SAFEMED IV - Training on main
principles of Search and Rescue.
24-25-26 March 2021**



SPANISH MARITIME ADMINISTRATION

The Maritime Rescue and Safety Society is a Public Entity attached to the Ministry of Development through the General Directorate of the Merchant Marine. Created in 1992, it became operational in 1993.



SALVAMENTO MARÍTIMO

“The object of the Maritime Rescue and Safety Society is the provision of public services for the rescue of human life at sea, and the prevention and fight against pollution of the marine environment, the provision of monitoring services and assistance to the maritime traffic, maritime safety and navigation, towing and assistance to ships, as well as those complementary to the above”.



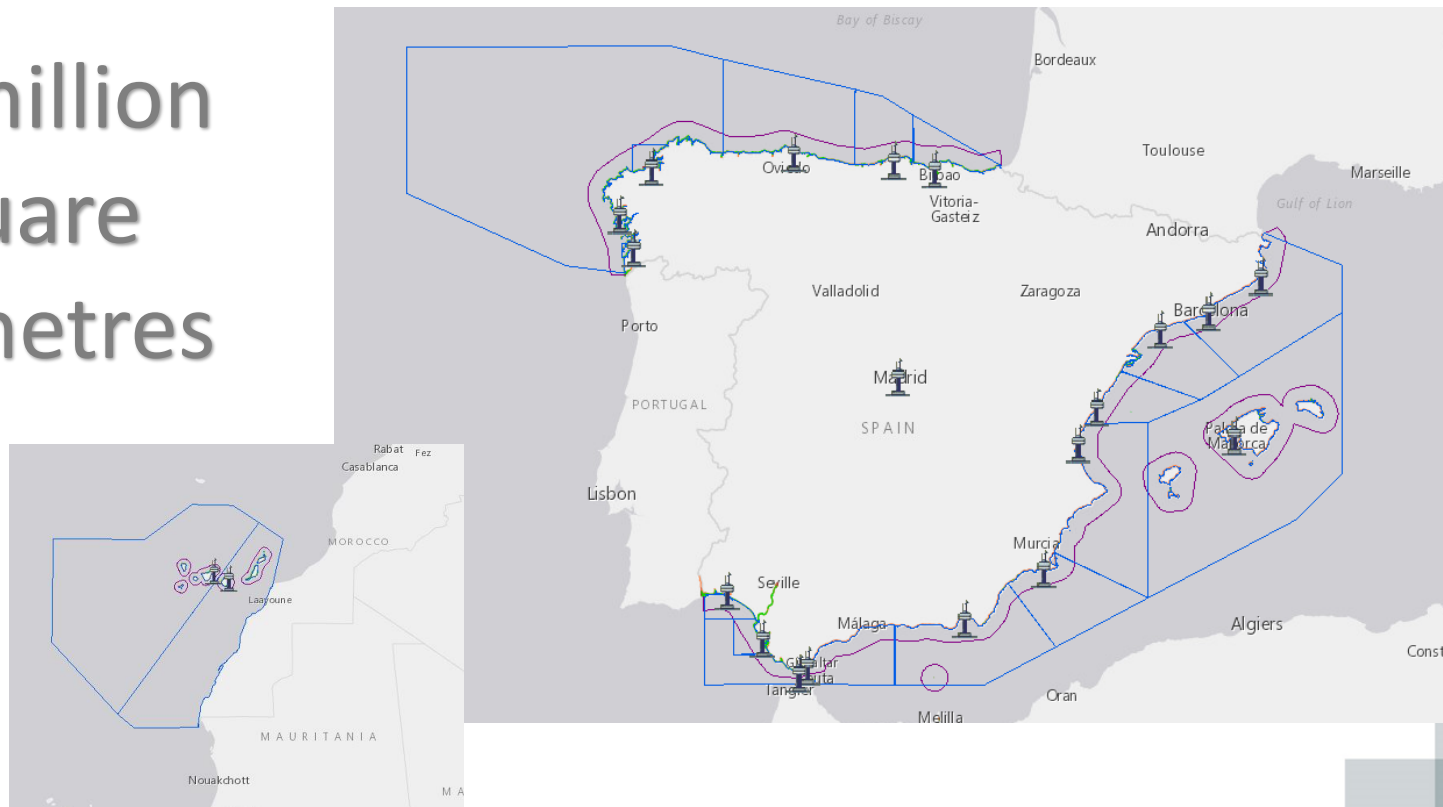
SAFETY vs. SECURITY

- RESCUE PERSONS AT SEA
- FIGHT AGAINST POLLUTION
- MONITORING AND ASSISTANCE VESSELS AT SEA
- COOPERATION WITH OTHER AGENCIES



SAR AREA OF RESPONSIBILITY

1.5 million
square
kilometres



- **PROFESSIONALS:**
 - MRCC operators
 - Aerial Units
 - Maritime Units
 - Estrategic Pollution Fighting Base's
 - Training Centre



MAPA DE MEDIOS DE SALVAMENTO MARÍTIMO

JULIO 2017

- 20  Centros de Coordinación de Salvamento
- 6  Bases estratégicas
- 4  Buques Polivalentes y lucha contra la contaminación marina. 56-80 m eslora
- 10  Remolcadores de salvamento. 40-63 m eslora
- 4  Guardamares. 32 m eslora
- 55  Salvamares. 15-21 m eslora
- 3  Aviones. CN 235-300
- 11  Helicópteros. 9 AW139, 1 EC225 Super Puma y 1 Sikorsky 561N

Área de responsabilidad en salvamento

1.500.000 km²

Superficie marina

8.000 km

Perímetro costero



HOW? : COORDINATION

Law 27/1992, of November 24, on State Ports and the Merchant Marine, establishes in its article 87.1 ... the Public Service for the Rescue of Human Life at Sea and the Fight against Pollution of the Marine Environment will be provided by the General State Administration and by the other Public Administrations, within the scope of their respective competencies, in accordance with the principle of **coordination**, and implemented through the corresponding Plans and Programs that must contemplate in an integrated manner the actions of each of the Administrations involved.

- MINISTRY DEFENCE: NAVY, AIR FORCE (SAR), LAND ARMY (UME, Regimiento NBQ)
- MINISTRY OF INTERIOR
- SEA CUSTOMS
- REGIONAL ADMINISTRATION
- RED CROSS

SAFETY AT SEA

Preventing and solving emergencies, accidents or incidents:

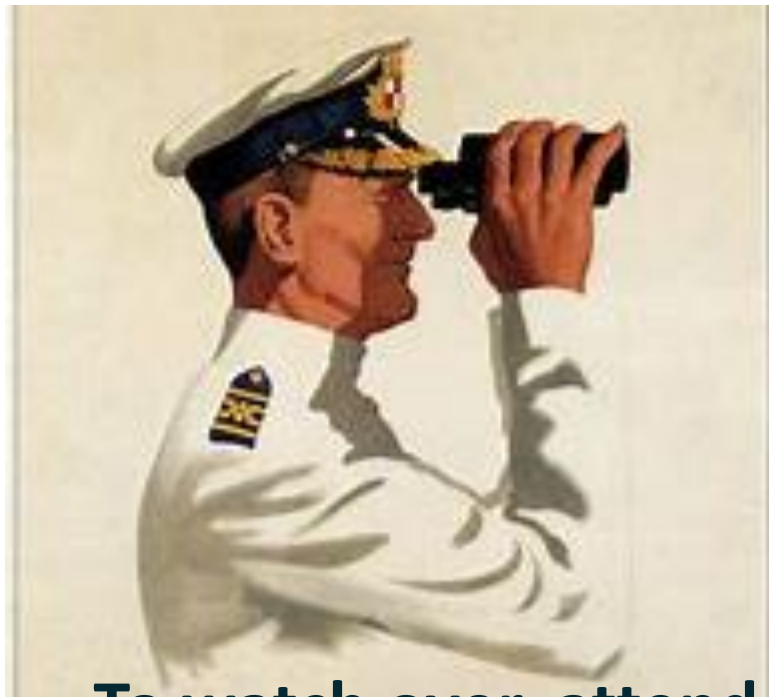
- ¿WHERE? SAR AREA

SOLAS Chapter V/R12

Maritime traffic services contribute to the safety of human life at sea and the efficiency of navigation and the protection of the marine environment

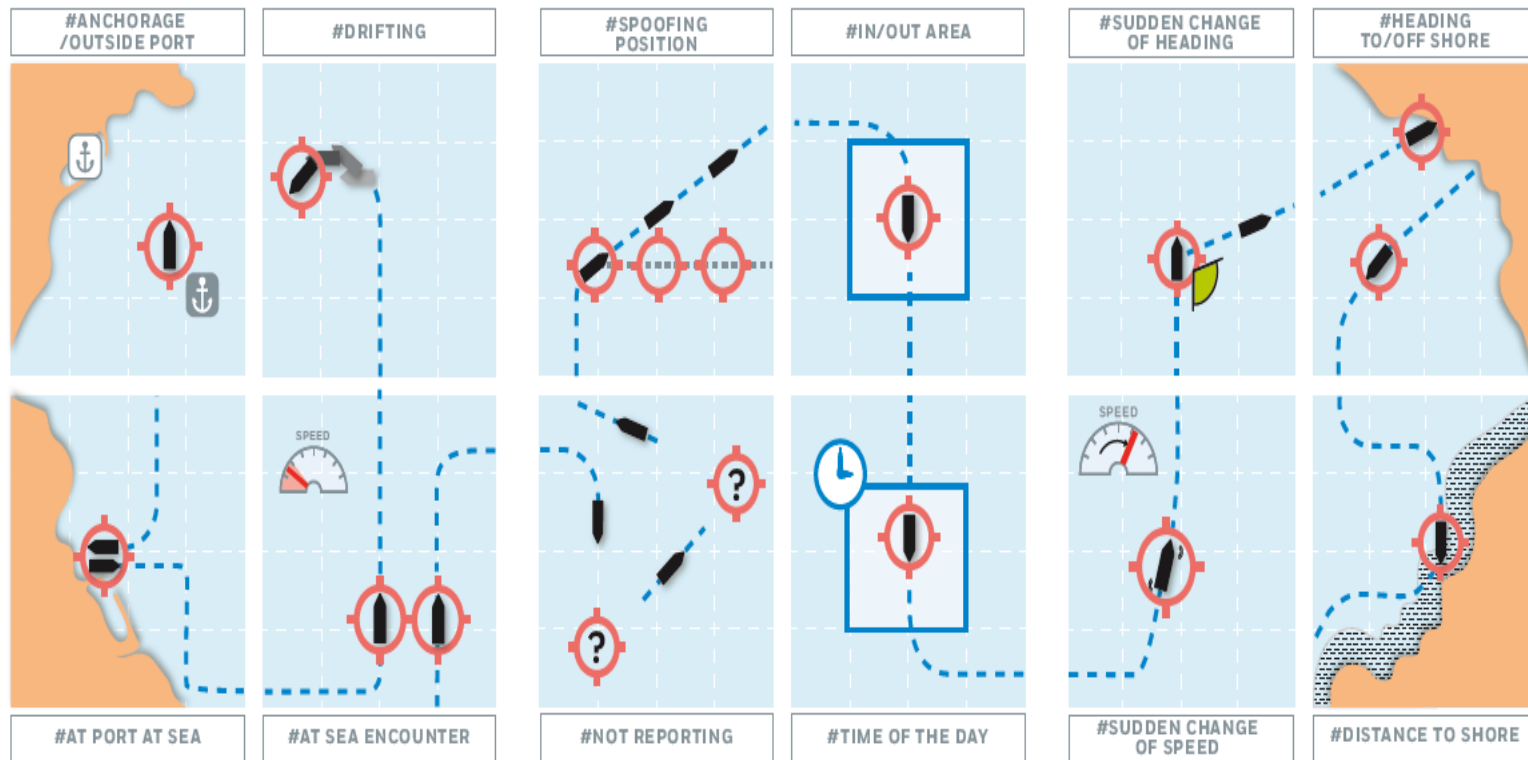
- Traffic Separation Schemes(TSS's)
- Particularly Sensitive Sea Area (PSSA)

TRAFFIC MONITORING



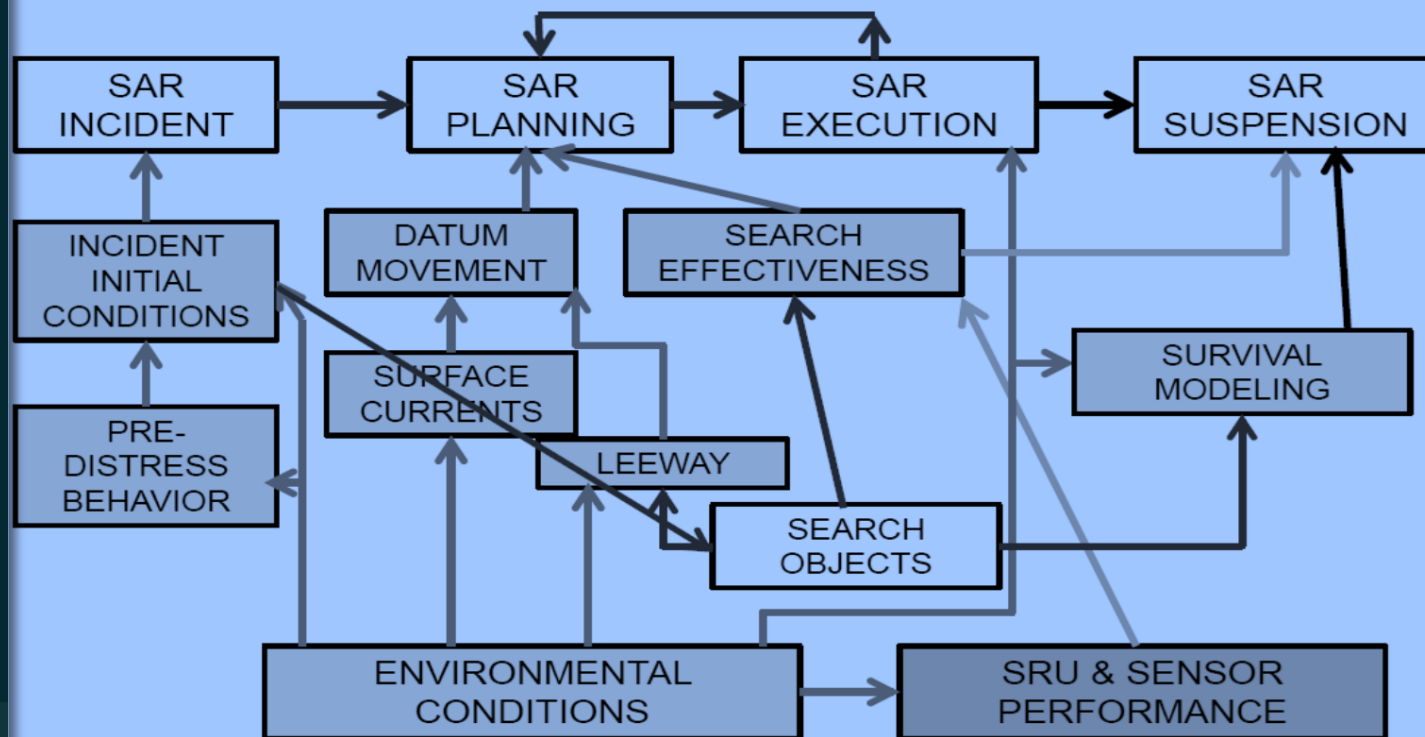
**To watch over, attend, take care of, keep, observe,
guard, examine, control**

TRAFFIC MONITORING

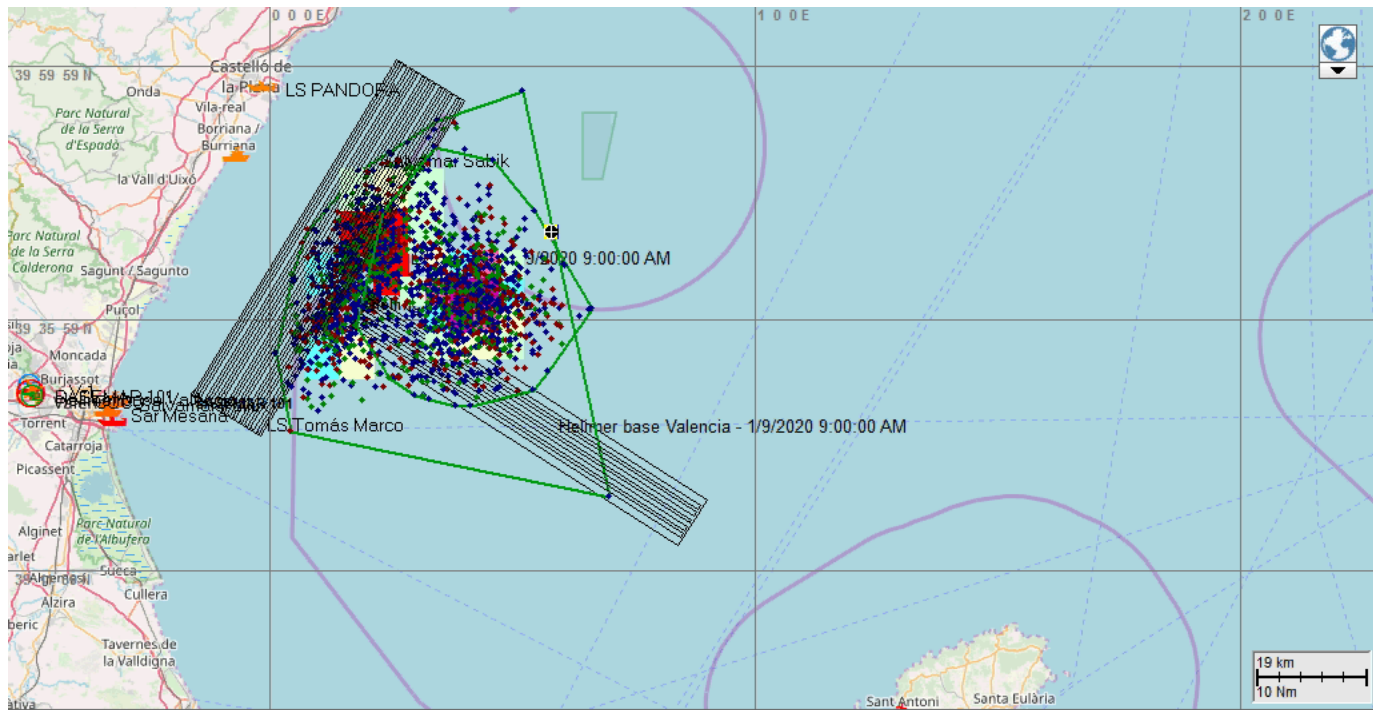


SAR: SEARCH AND RESCUE

The SAR Problem



SAR: SEARCHING



SAR: rescuing



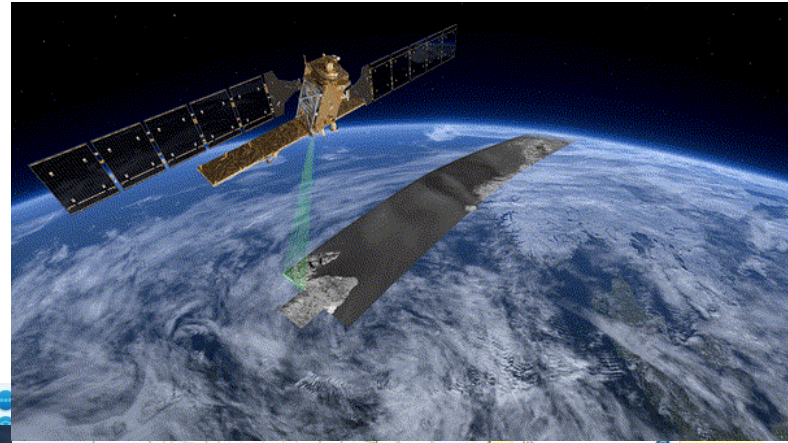
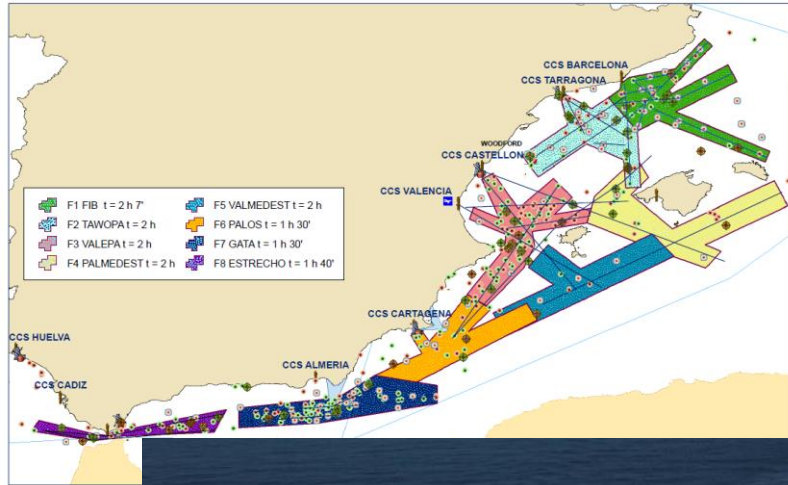
POLLUTION FIGHTING

- DETECTING AND FIGHTING AGAINST POLLUTION

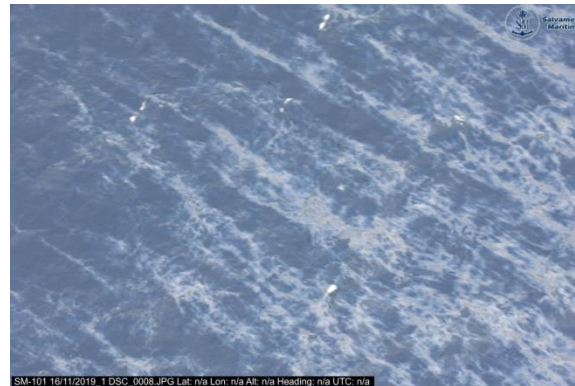
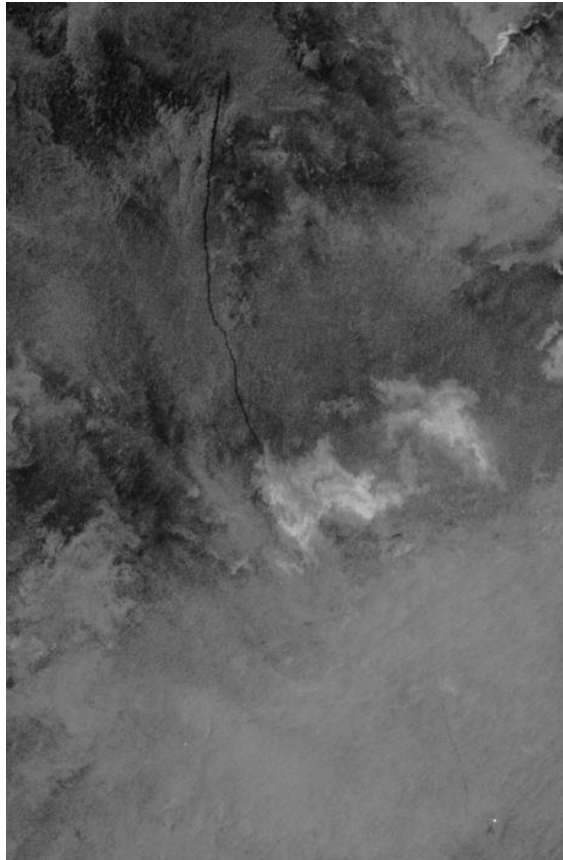
- Where? Economic Exclusive Zone (EEZ)
- How?
 - Maritime units
 - Aerial units
 - Satellite imagery
- Detection characteristics
- Means for containment and collection.
- Determine threatened areas
- Finding the alleged perpetrators: report
- Deterrence



PULLUTION DETECTION



POLLUTION DETECTION





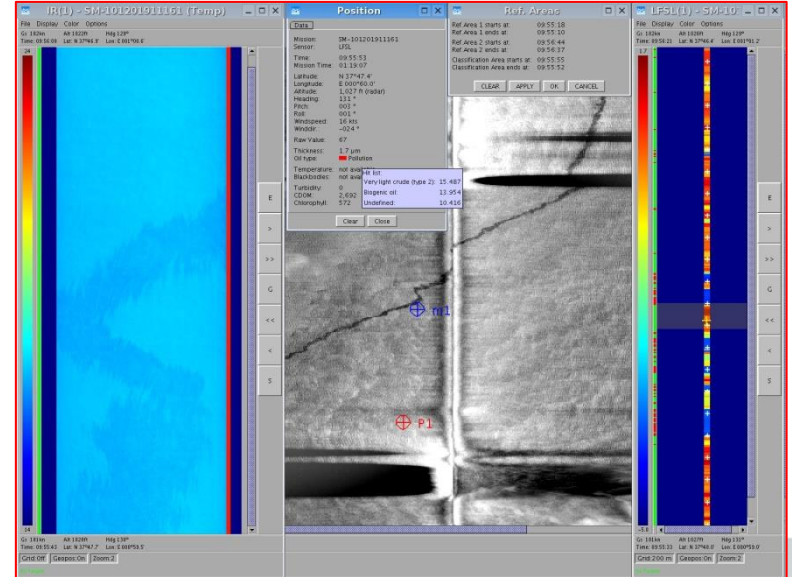
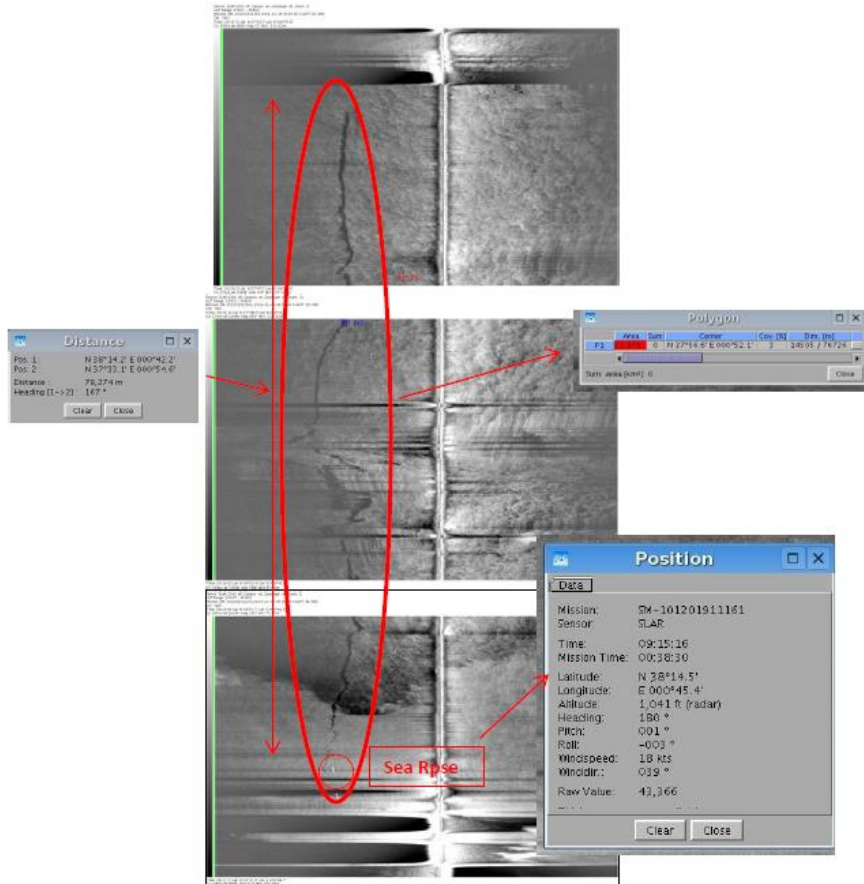
Code	Description - appearance	Layer thickness interval (µm)	Litres per Km ²
1	Sheen	0.04 to 0.30	40 – 300
2	Rainbow	0.3 to 5.0	300 – 5000
3	Metallic	5.0 to 50	5000 – 50 000
4	Discontinuous True Oil Colour	50 to 200	50 000 – 200 000
5	Continuous True Oil Colour	More than 200	More than 200 000

The appearances described cannot be related to one thickness; they are optic effects (codes 1-2-3) or true colours (codes 4-5) that appear over a range of layer thickness. There is no sharp delineation between the different codes; one effect becomes more diffuse as the other strengthens.





Code 1, 2 and 3, Code 3 "METALLIC" in the middle of the oil slick

AERIAL SENSORS





		Informe detección (Report Nº): FC_1911161_EMSA Nº Carpeta SIGO (Emergency Nº): 6094/19 CCS (MRCC): VALENCIA
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INFORME FINAL DE DETECCIÓN DE CONTAMINACIÓN

POLLUTION DETECTION FINAL REPORT



Notificación sobre presunta contaminación detectada NO IN FRAGANTI por satélite EMSA

Notification of a presumed illicit discharge from a suspected
vessel (not detected red-handed) by EMSA Clean Sea net
Alert Report

FECHA (Date): 16/11/2019



NOMBRE DEL BUQUE (Vessel's name): SEA ROSE
Nº IMO (IMO number): 8802258

		Informe detección (Report Nº): FC_1911161_EMSA Nº Carpeta SIGO (Emergency Nº): 6094/19 CCS (MRCC): VALENCIA
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8. Conclusiones.

Conclusions.

1. El día 16 de noviembre de 2019, se recibe del Sistema CleanSeaNet de EMSA, Oil spill warning nº 1911160005, hora de adquisición 06:01 horas UTC, con la detección de una posible mancha de contaminación.

On November the 16th, 2019, EMSA CleanSeaNet system Oil Spill Warning, nº 1911160005, acquisition time: 06:01 UTC is received with the detection of a possible oil slick.

2. CCS Valencia moviliza a las aeronaves A/S Sasemar 101 y H/S Helimer 202 para verificación de la detección reportada por EMSA y toma de muestras. La tripulación de ambas aeronaves catalogan la descarga como aceite mineral según el Código de Apariencia del Acuerdo de Bonn. Esta información es corroborada por las fotografías tomadas durante el vuelo.

CCS Valencia launches aeroplane A/S Sasemar 101 and helicopter H/S Helimer 202 to verify the detection reported by EMSA and take samples. According to the Bonn Agreement Oil Appearance Code, the pollution is classified by the trained operators as mineral oil. The photographs taken during the flight support this conclusion.

3. El buque sospechoso SEA ROSE, nº IMO 8802258 es identificado por EMSA como "Posible Fuente de Información" y por medio del estudio Oilmap-AIS.

The suspected vessel SEA ROSE, IMO number 8802258, is identified by EMSA as "Possible Source Information" and by the backtracking-AIS analysis.

4. El buque fue interrogado por el A/S Sasemar 101, y confirmó que estaba en lastre, último puerto fue TENES (Argelia) y se dirige a GANDÍA (España). Niega haber descargado nada al mar. The vessel was interrogated by A/S Sasemar 101 confirming ballast condition, TENES (Algeria) as last port of call and GANDÍA (Spain) as next port of call. She denied to have performed any discharge at sea.

5. La superficie contaminada de acuerdo con la imagen satelitaria facilitada por EMSA es de 19,15km². La posición de la mancha demora al 140º desde cabo La Nao (Alicante) a una distancia de 36 MN. La descarga reportada por la aeronave es detectada por los sensores SLAR, IR y LFLSL, que la clasifica como "Pollution".

The polluted area according to the satellite image from EMSA is of 19,15km². The slick position is bearing 140º from cape La Nao (Alicante) at a distance of 36 NM. The discharge reported by the aeroplane A/S Sasemar 101 is detected by the SLAR, IR and LFLSL sensors that classifies as "Pollution".

6. Las conclusiones de este informe se completarán con los resultados del análisis de las muestras tomadas en la mar.

The conclusions of this report will be completed with the results of the analysis of the samples taken at sea.

CAM VALENCIA
16/11/19

LESSONS LEARNT: COOPERATION



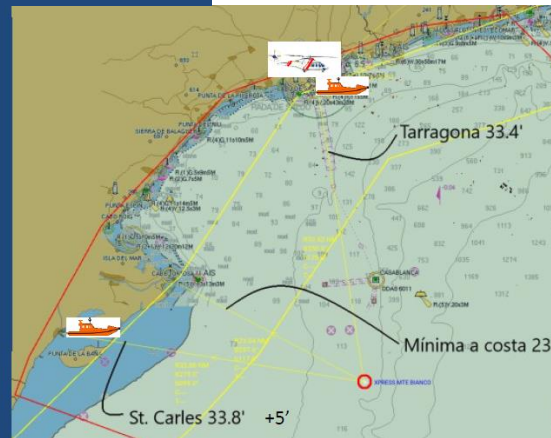
X-Press Monte Bianco
Bandera: Malta
C/S: 9HA3446 IMO: 9276341
Año de entrega : 2003
Eslora: 133,58 metros
GT: 6434 Toneladas

Capacidad: 707 TEU

Fuel: 734 m³
Diésel: 111,72m³
LubOil: 54,41 m³

*?

Propietario: Fairmont Pte. Lmt.
Agente X-Press Line



FIRE I Inter-agency collaboration: X-PRESS MONTE BIANCO

August 18 2020, Tarragona

Fire in the engine room of a merchant ship located 33 miles from Tarragona.
Maritime Rescue helicopter has transferred a team of Bombers to the ship to carry out verification tasks



FIRE II Intergovernment aid: GRANDE AMERICA

March 10, 2019, Biscayne Bay

MV Grande America 214 m. length, 2000 vehicles, 27 crew, 140 nautical miles from the Spanish coast. The ship sank 4600 m. depth 15000t of cargo on board 860 t dangerous goods, 2400t bunkers on board.

After the sinking, and once the people put been rescued, our only concern was that there was a fuel spill that could reach our shores. Although the ship had sunk in the French zone, the sea knows no borders and the currents move as they please.

The first spill was detected by a French reconnaissance plane on the afternoon of March 13. The following day, France activated the Bay of Biscay Plan, a collaboration plan between France and Spain on SAR and pollution in the Atlantic area, and formalized Spain's request for collaboration anti-pollution.

Finally, on April 2, France requested the deactivation of the Plan, terminating the collaboration and our units withdraw on base. We all had in mind other similar misfortunes that ended with the fuel permeating our coasts.



FIRE III: GRANDE EUROPA



May 15 2019

The ship Grande Europa (Car Carrier of Grimaldi Lines) suffered a fire on board, in the Car Deck, 21 miles south of Punta Cala Figuera, (South of Mallorca) with 24 people on board.

The Maritime Rescue Center in Palma was in charge to coordinate the emergency in which participated different maritime rescue units (Marta Mata, Clara Campoamor and Sar Mesana, the Salvamar Acrux and Guardamar Callíope vessels, Helimer 205 and Helimer 220 helicopters, counterpollution response) as well as units from other administrations such as the Government of the Balearic Islands, Balearic Port Authority, Navy and the Civil Guard.

After rescuing 14 of its crew, the Helimer 205 transferred them to Navy ship Martín Posadillo, which was in the vicinity of the emergency site. The doctor on board of the Navy ship confirmed the good condition of the people evacuated. The other 10 crew members remained on board to fight fire with the ship's own fire fighting plan.

Finally Maritime Rescue vessels Marta Mata and Sar Mesana towed the ship to the port of Palma Mallorca.

RUN AGROUND. Private Salvage teamwork: BLUE STAR



24 NOVEMBER 2019

The Atlantic hits the northwestern coasts of Spain with force and cause accidents such as this of the ship Blue Star, which ran aground in the Galicia.

The ship was left without a machine as a result from a fire and ran aground in a rocky area on the coast.

Fortunately, the story ended well thanks to the teamwork for 18 days of many people, with whom they managed to unload the ship. There were no human losses nor contamination, being able to tow the vessel from the rocks on December 10 and take it to the interior of the Ferrol estuary

THANK YOU FOR YOUR ATTENTION!

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