

Inter-Agency Tripartite Working Arrangement

Technical Sub Committee 1

Maritime Data Catalogue

Version: 24th June 2021

Summary

Within the framework of the Inter-Agency Tripartite Working Arrangement (TWA), EMSA, Frontex and EFCA are tasked with *Area 1 Information Sharing*, with a focus on the development of a data sharing table providing an overview of data sharing between the three Agencies and their users. To better define the benefits that the exchange of information could bring to all parties, it is necessary to develop a clear picture of the datasets available at Agency and Member State level.

During the Annual European Coast Guard Event (AECGE) 2019, held in Świnoujście (15-17 April 2019), Technical Subcommittee 1 (TSC1) presented the table indicating the datasets and the conditions associated with their use. A first draft of a Data Sharing Table with 48 data groups and Coast Guard function authorities was presented. The AECGE 2019 concluded that the cooperation between the EMSA, Frontex and EFCA can be further strengthened to share more data and that *“there is a need to describe further the datasets with additional information such as data update rate, reliability, technical issues or any access restrictions or conditions”*.

The task of completing the data mapping table is reflected in the Annual Strategic Plan 2020, agreed by the three Agencies. The 9th meeting of the TSC1 revised the Interagency Datasets Table in September 2019 and established a total of 55 datasets. Ten data groups have been identified as sources which could potentially be used by the relevant stakeholders of the Member States involved in coast guard functions. Each data category contains specific datasets which need are described in detail, as requested by the AECGE 2019.

The 9th meeting of the TSC 1 agreed the methodology to be followed to describe each dataset in a systematized and harmonised way and agreed to draft the definitions of the datasets.

For each dataset, a specific datasheet has been produced by the Agency that has the responsibility for hosting and distributing the respective data.

The present document serves as a record of these datasheets.

Additionally, the present document presents a table providing an overview of the availability access for these datasheets. This *Available Data Types and Current Users* table lists each dataset, together with an indication of which Coast Guard communities are permitted to access the data at the time of publication of this document.

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Change control history

Version	Date	Edited by	Description
1.0	21/05/2020	TSC1	First draft
1.1	29/06/2020	TSC1	Changes as agreed in 15 th TSC1 meeting: • Addition of Ship AIS • Addition of <i>Available Data Types and Current Users</i> section and table • Moved definitions and acronyms to end of document.
1.2	28/07/2020	TSC1	Completion of datasheet 9.4 with information on AIS message types available.
1.3	26/10/2020	TSC1	• Frontex and EFCA logos updated. • Completion of text for datasheet 8.3. • Additional information added to data elements in datasheets 9.4 and 9.5. • Completion of text for datasheet 6.2.
1.4	17/11/2020	TSC1	Editorial review of entire document.
1.5	21/01/2021	TSC1	Validation by TSC1 of version 1.0 for dissemination.
1.6	24/06/2021	TSC1	Clean-up for Publication

Datasheet Methodology

The methodology applied describes each dataset in a systematized and harmonised manner, as follows:

- I. Data group
Specify for each dataset to which data group the dataset belongs.
- II. Short description
Provide a general description of the dataset.
- III. Agency responsible for data set
Specify the Agency responsible for the dataset. The colour code in the Table indicates the Agency responsible for collecting each dataset.
- IV. Data elements available under this data set
Each dataset may include more than one data element. All data elements are listed and a short description for each of them is provided.
- V. Legal basis
The legal basis associated to the dataset.
- VI. Scope and source of data
The scope of reporting of the datasets, including who is responsible for the transmission of such information, the geographical areas of responsibility, to whom the information should be transmitted, which vessels should be reported and when. Links to external sources with additional information, e.g. websites, are also be included under this point.
- VII. Technical implementation
Technical information about the interfaces available for the end users, how the data is reported and stored, where it is stored etc.
- VIII. Conditions of access
How access could be granted as well as the possible conditions or restrictions.
- IX. Status of implementation
Information about the status of implementation as well as possible plans for making the data available (if currently unavailable).
- X. Dissemination channels
The interfaces, e.g. graphical user interfaces/system-to-system/email/FTP, via which the data is disseminated.
- XI. Points of contact
Information who should be contacted to request further information or access.

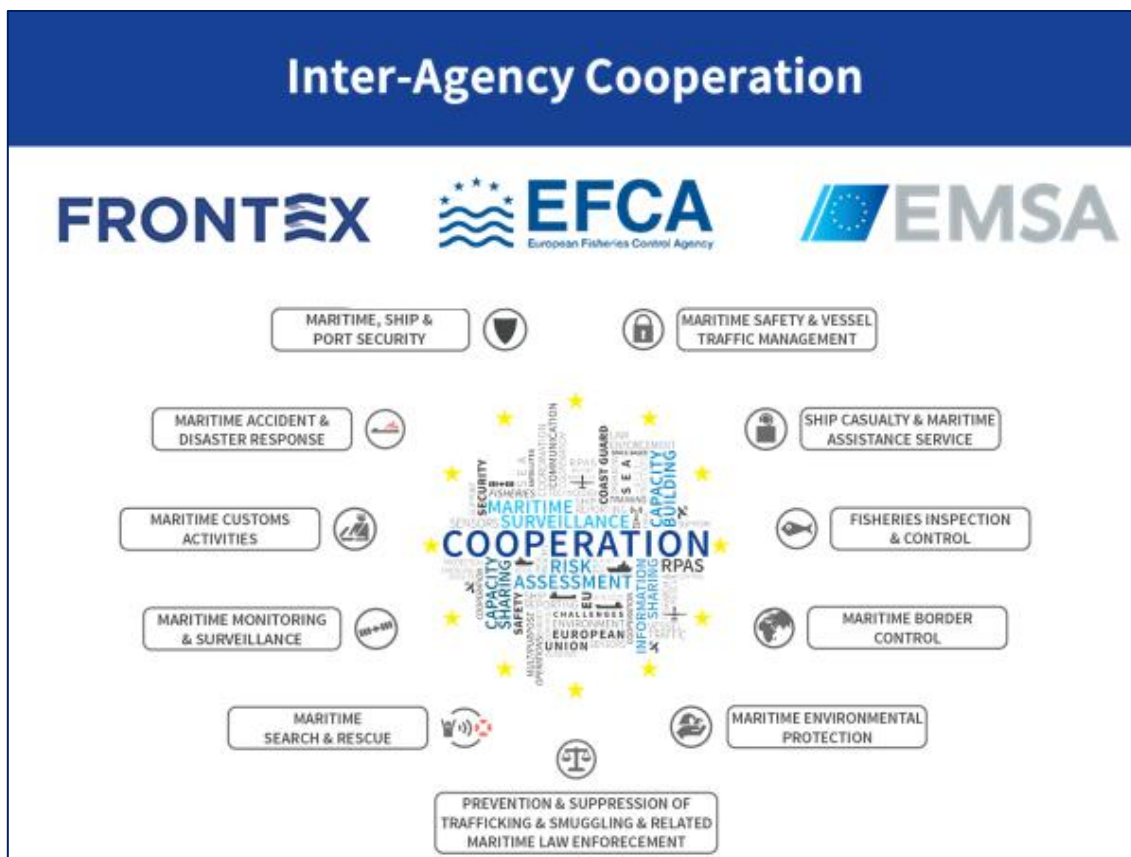
Available Data Types and Current Users

European cooperation has substantially progressed in recent years, due to the efforts of the EU institutions and the relevant EU Agencies. Frontex, EMSA and EFCA, as the core of interagency cooperation on Coast Guard Functions, have been working together to provide relevant stakeholders with the expected added value when performing cross sector initiatives.

The objective of the *Available Data Types and Current Users* table is to further enhance cooperation among the Agencies and relevant stakeholders in the field of information sharing. The Table presents the available datasets, grouped in datatypes including data of a similar nature. More or different groups may be formulated depending on the future needs and the evolution of systems.

Each datatype is broken down into specific datasets, which are described in detail in the datasheets presented in this document. A colour code is applied to the table, indicating which Agency is responsible for each dataset.

The Table presents the Agencies and the relevant stakeholders of the Member States involved in Coast Guard functions as shown in the following figure:



In addition to the above stakeholders, the table includes a column titled “other EU / international bodies” to indicate EU institutions or international bodies that may access certain data sets due to their specific role in the Coast Guard Functions, such as the European Environmental Agency, EUROPOL and MAOC-N.

The “Fishery Control Authorities” indicated in the Table under the “MS Authorities with Coast Guard functions” should be understood as the Authorities with oversee fishery monitoring and control tasks in MS, EFCA, DG MARE and other bodies designated by EFCA.

The listing of a datatype, dataset or user in the Table in no way implies that access is permitted. Each dataset has associated legal restrictions which must be complied with.

Agency responsible: EFCA
Agency responsible: EMSA
Agency responsible: Frontex
Agency responsible: multiple Agencies

			EU Bodies / International bodies				Member State Authorities with Coast Guard Functions										
Users			EFCA	EMSA	Frontex	Other EU / International Bodies (e.g. EEA, MAOC-N)	Ship and Port Security	Maritime Safety & Vessel Traffic Management (VTMIS National Competent Authority)	Ship Casualty & Maritime Assistance Service	Fisheries Inspection & Control (Fisheries Control Authorities)	Border Control NCA	Maritime Environmental Protection (Pollution Monitoring NCA)	Prevention and Suppression of Trafficking & Smuggling & Related Law Enforcement	Search and Rescue (MRCC)	Maritime Monitoring & Surveillance	Customs Activities	Accident and Disaster Response
Datatype/dataset																	
1. SSN Voyage related information	1.1	Port call data	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	1.2	Hazmat		X		X		X	X			X		X	X		X
	1.3	Waste		X				X	X			X		X	X		
	1.4	Security		X	X		X	X						X	X		
	1.5	Bunkers		X				X	X			X		X	X		X
	1.6	Persons on board passenger ships		X				X						X			X
	1.7	Number of persons on board	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	1.8	Incidents / accidents		X				X	X			X		X	X		X
	1.9	Exemptions	X	X		X	X	X	X	X	X	X	X	X	X	X	X
2. Vessel Positions	2.1	MRS		X				X						X	X		
	2.2	T-AIS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	2.3	T-AIS from SAFEMED		X													
	2.4	T-AIS from BCSEA		X													
	2.5	T-AIS from external providers	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Users Datatype/dataset			EU Bodies / International bodies				Member State Authorities with Coast Guard Functions										
			EFCA	EMSA	Frontex	Other EU / International Bodies (e.g. EEA, MAOC-N)	Ship and Port Security	Maritime Safety & Vessel Traffic Management (VTMIS National Competent Authority)	Ship Casualty & Maritime Assistance Service	Fisheries Inspection & Control (Fisheries Control Authorities)	Border Control NCA	Maritime Environmental Protection (Pollution Monitoring NCA)	Prevention and Suppression of Trafficking & Smuggling & Related Law Enforcement	Search and Rescue (MRCC)	Maritime Monitoring & Surveillance	Customs Activities	Accident and Disaster Response
	2.6	LRIT	X ¹	X	X ²	X ³		X						X			
	2.7	SAT-AIS	X	X	X	X ⁴	X	X	X	X	X	X	X	X	X	X	X
	2.8	VMS	X	X ⁵	X ⁶					X				X			
	2.9	Ship Gathered AIS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3. EMSA Central Reference Databases	3.1	Central Geographical Database	X	X				X		X							
	3.2	Central Location Database	X	X	X	X	X	X		X	X			X			
	3.3	Central Organisation Database	X	X	X			X		X	X			X			
	3.4	Central Ship Database	X	X	X			X		X	X						
	3.5	Central Hazmat Database	Public version available														
	3.6	MAR-CIS		X								X					X
4. Fishery Information	4.1	EU Fleet Register	Public version available														
	4.2	Maritime boundaries and fishing areas Repository	X	X	X					X							
	4.3	Fisheries inspection and surveillance Information	X							X							

¹ LRIT from EU Member States who have authorised sharing.
² LRIT from EU Member States who have authorised sharing and LRIT Standing Order for Italian Area of Interest.
³ LRIT from EU Member States who have authorised sharing | EUNAVFOR ATALANTA also share LRIT collected in situ for visualisation in the respective SEG operation.
⁴ Specifically defined geographical areas per institution.
⁵ Based on the specific terms and conditions agreed with EFCA.
⁶ Based on the specific terms and conditions agreed with EFCA.

Users Datatype/dataset			EU Bodies / International bodies				Member State Authorities with Coast Guard Functions										
			EFCA	EMSA	Frontex	Other EU / International Bodies (e.g. EEA, MAOC-N)	Ship and Port Security	Maritime Safety & Vessel Traffic Management (VTMIS National Competent Authority)	Ship Casualty & Maritime Assistance Service	Fisheries Inspection & Control (Fisheries Control Authorities)	Border Control NCA	Maritime Environmental Protection (Pollution Monitoring NCA)	Prevention and Suppression of Trafficking & Smuggling & Related Law Enforcement	Search and Rescue (MRCC)	Maritime Monitoring & Surveillance	Customs Activities	Accident and Disaster Response
	4.4	Electronic reporting system (EFCA-ERS)	X														
5. Ship Inspection Support and Port State Control	5.1	THETIS database	Public version available														
	5.2	THETIS EU Sulphur	Public version available														
	5.3	THETIS EU Port Reception Facilities		X													
	5.4	THETIS EU Maritime Security		X													
	5.5	THETIS EU Ship Recycling	Public version available														
	5.6	THETIS EU RoRo Ferry	Public version available														
	5.7	THETIS MRV	Public version available														
	5.8	THETIS Mediterranean MoU	Public version available														
	5.9	THETIS eCertificates		X													
	5.10	THETIS Insurance Information		X													
	5.11	THETIS Liability of Carriers of Passengers		X													
	5.12	RuleCheck		X													
	5.13	EQUASIS	Public version available														

Users Datatype/dataset			EU Bodies / International bodies				Member State Authorities with Coast Guard Functions										
			EFCA	EMSA	Frontex	Other EU / International Bodies (e.g. EEA, MAOC-N)	Ship and Port Security	Maritime Safety & Vessel Traffic Management (VTMIS National Competent Authority)	Ship Casualty & Maritime Assistance Service	Fisheries Inspection & Control (Fisheries Control Authorities)	Border Control NCA	Maritime Environment al Protection (Pollution Monitoring NCA)	Prevention and Suppression of Trafficking & Smuggling & Related Law Enforcement	Search and Rescue (MRCC)	Maritime Monitoring & Surveillance	Customs Activities	Accident and Disaster Response
6. EO Products	6.1	CleanSeaNet oil spill and vessel detection services products		X	X ⁷							X					X
	6.2	Copernicus Border Surveillance Service (Maritime) products			X						X		X	X	X	X	
	6.3	Copernicus Maritime Surveillance Service products	X	X		X	X	X	X	X		X	X	X	X	X	X
7. Meteo and Oceanographic Data	7.1	CMEMS	Public version available														
	7.2	EMODnet	Public version available														
	7.3	CAMS	Public version available														
	7.4	EUMETSAT	Public version available														
	7.5	Frontex Meteorological data			X						X		X	X	X	X	
	7.6	Frontex Oceanographic data			X						X		X	X	X	X	
8. Assets	8.1	Details	Data access subject to authorisation of the authority(ies) coordinating/overseeing the particular mission only														
	8.2	Deployment	Data access subject to authorisation of the authority(ies) coordinating/overseeing the particular mission only														
	8.3	Position, speed course, etc.	Data access subject to authorisation of the authority(ies) coordinating/overseeing the particular mission only.														

⁷ Vessel Detection services products only.

Users			EU Bodies / International bodies				Member State Authorities with Coast Guard Functions									
							Ship and Port Security	Maritime Safety & Vessel Traffic Management (VTMIS National Competent Authority)	Ship Casualty & Maritime Assistance Service	Fisheries Inspection & Control (Fisheries Control Authorities)	Border Control NCA	Maritime Environmental Protection (Pollution Monitoring NCA)	Prevention and Suppression of Trafficking & Smuggling & Related Law Enforcement	Search and Rescue (MRCC)	Maritime Monitoring & Surveillance	Customs Activities
Datatype/dataset																
9. Data collected by aerial assets	9.1	Video and images (optical and IR)	Data access subject to authorisation of the authority(ies) coordinating/overseeing the particular mission only													
	9.2	Radar images	Data access subject to authorisation of the authority(ies) coordinating/overseeing the particular mission only													
	9.3	Radar derived vessel tracks	Data access subject to authorisation of the authority(ies) coordinating/overseeing the particular mission only													
	9.4	AIS data	Data access subject to authorisation of the authority(ies) coordinating/overseeing the particular mission only													
	9.5	Distress signals	Data access subject to authorisation of the authority(ies) coordinating/overseeing the particular mission only													
	9.6	Gas emission concentrations	Data access subject to authorisation of the authority(ies) coordinating/overseeing the particular mission only													
10. Open source intelligence	10.1	Frontex - open source intelligence			X					X		X	X	X		
	10.2	EMSA Daily Newsletter	X	X	X											

1. SSN Products

Information exchanged via SafeSeaNet (excluding vessel positions, which form a separate category), such as information on number of people on board, dangerous goods carried on board, incidents/accidents and exemptions.

1.1 Dataset 1.1 Port call data

I. Data group

SSN Voyage related information

II. Short description

Pre-arrival information sent to ports 24 hours in advance and information on ship arrivals and departures. In addition, 72 hours pre-arrival information for ships eligible for an expanded PSC inspection if no other national arrangement is in place.

III. Agency responsible for dataset

EMSA

IV. Data elements

Information on ship identification: IMO number, MMSI number, Call Sign, Ship name and Flag.

Information on ship call to a port:

- Last port - ports from which the vessel is coming from.
- ETD from Last Port - Estimated time of departure from Last port.
- Port of Call - port to which the vessel is heading to.
- ETA to Port of Call - Estimated time of arrival to Port of Call.
- ATA to Port of Call - Actual time of arrival to Port of Call.
- ETD from Port of Call - Estimated time of departure from Port of Call.
- ATD from Port of Call - Actual time of departure from Port of Call.
- Next Port - Subsequent port.
- ETA to Next Port - Estimated time of arrival to Next Port.

V. Legal basis

Article 4 of the Directive 2002/59/EC (as amended) of the European Parliament and of the Council of 27 June 2002 establishing a Community vessel traffic monitoring and information system and repealing Council Directive 93/75/EEC, as amended (VTMIS Directive).

Articles 9 and 26 of the Directive 2009/16/EC of the European Parliament and of the Council of 23 April 2009 on port State control (PSC Directive), as amended.

VI. Scope and source of data

For 24 hours Pre-arrival notifications all ships of 300 gross tonnage and upwards, except:

- a) warships, naval auxiliaries and other ships owned or operated by a Member State and used for non-commercial public service;
- b) fishing vessels, traditional ships and recreational craft with a length of less than 45 metres;
- c) bunkers on ships below 1,000 gross tonnage and ships' stores and equipment for use on board all ships.

Port call data is provided by the ships' masters, agents or operators to port authority before ship arrival either directly in the port system or through the National Single Window (NSW).

Information about actual time of arrival and departure can be either provided by ship agent, ship master, port operator or automatically determined by the national system (depending on the national implementation).

VII. Technical implementation

Port call data is reported at national level to the port system or NSW system and then made available to other Member States via SafeSeaNet (SSN).

SSN is a network of national systems in Member States which are linked to a central SSN system that acts as a nodal point. The central SSN system stores port call data which enables rapid, effective response to users' requests.

The central SSN system provides different alternative mechanisms to enable the exchange and sharing of datasets and information:

- System-to-system interface, which allows exchange of data between the national and central SSN applications; any other external system and the central SSN;
- graphical user interface providing access to port call data;
- app for mobile devices (IMS App) providing access to the current maritime picture on smart phones and tablets.

Port Call data is available online for a minimum of 2 months from the departure of the ship from a port. The data is archived for at least 5 years and may be provided upon request.

VIII. Conditions of Access

In accordance with the Interface and Functionalities Control Document (IFCD), port call data is available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users.

Access to other communities may be requested, either on an ad hoc basis (to satisfy a given need during a given period), or in the form of an agreement (MoU), which allows access to SSN by specific users who are involved in pilot projects, but who are outside the SSN legal framework. In each case, access will only be granted to information relevant to their mandate. Access rights for each user profile shall be determined by a decision of the HLSG⁸ for the specific agreed purpose.

IX. Status of implementation

This dataset is already available for all ship calls to EU ports and made available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users.

X. Dissemination channels

The data is currently available as a feed integrated into the SafeSeaNet Ecosystem Graphical User Interface (SEG) for the Member State and Institutional operations, including EFCA IMS and Frontex IMS. The known next ports call and last known ports of call are also provided via system-to-system to Frontex and are available via the EUROSUR Fusion Services (EFS).

XI. Points of contact

EMSA's Maritime Support Services (MSS)

Tel: +351 211 209 415

Fax: +351 211 209 480

Email: MaritimeSupportServices@emsa.europa.eu

⁸ High Level Steering Group for Governance of the Digital Maritime System and Services (HLSG) – The governance group defined in Annex III of Directive 2002/59/EC (as amended), which comprises MS and Commission representatives, and which has the tasks defined in Commission Decision (EU) 2016/566 of 11 April 2016 (Repealing decision 2009/584/EC of 31 July 2009).

1.2 Dataset 1.2 Hazmat

I. Data group

SSN Voyage related information

II. Short description

Information on the carriage of dangerous and marine polluting goods (as per Articles 4, 13 and 14 of the Directive 2002/59/EC as amended).

III. Agency responsible for dataset

EMSA

IV. Data elements

Information on ship identification: IMO number, MMSI number, Call Sign, Ship name and Flag.

Information on ship call to a port:

- Last port - ports from which the vessel is coming from.
- ETD from Last Port - Estimated time of departure from Last port.
- Port of Call - port to which the vessel is heading to.
- ETA to Port of Call - Estimated time of arrival to Port of Call.

Information on Hazmat:

- INF ship class - The INF class of the ship must be reported only if the ship is carrying any of the materials covered by the International Code for the Safe Carriage of Packaged Irradiated Nuclear Fuel, Plutonium and High-Level Radioactive Wastes on Board Ships (INF Code).
- Dangerous and Polluting Goods contact details - Address from which detailed information on the dangerous and polluting goods (DPG) may be obtained.
- Gross quantity - The weight (mass) or volume of the goods contained in a package including the weight (mass) or volume of any packaging material for each cargo item.
- Value - Gross quantity value.
- Unit - Gross quantity unit.
- Stowage position - The position or place where goods are stored on board the vessel. This is used in case of cargo which is not in a container or on a trailer.
- Transport Unit ID - Identification of the transport equipment. For containers, this shall be the identification code as defined in ISO 6346 (limited to goods under IMDG code). This international standard covers the serial number, owner, country code, and size of any given shipping container.
- Textual reference - This is the proper shipping name, completed with the technical name where appropriate, for goods under IMDG Code, or the product name for goods under IBC Code and IGC Code, or the bulk cargo shipping name for goods under IMSBC Code, or the name of oil for goods under Annex I to the MARPOL Convention.
- DG classification - Indication of the classification used (IMDG, IGC, IBC, IMSBC, MARPOL). More information on classifications in the following section.
- IMO hazard class - IMO Hazard class as defined in IMDG, IBC and IMSBC codes. It specifies the hazard code for the actual substance. Subsidiary hazard codes may be added where applicable in the "Subsidiary Risks" data items. More information in the following section.
- UN number - United Nations Dangerous Goods Identifier (UNDG), unique serial number assigned within the United Nations to substances and articles contained in a list of the dangerous goods most commonly carried.
- Location - Location of the dangerous and polluting goods on board.

V. Legal basis

Articles 4, 13 and 14 of Directive 2002/59/EC as amended.

VI. Scope and source of data

All ships carrying dangerous or polluting goods, irrespective of their size, are obliged to comply with the notification requirements.

Hazmat data is provided by the ships' masters, agents or operators to port authority at latest at departure time from EU port or before ship arrival to EU port (only for vessels coming from non-EU ports) either directly in the Port system or through the National Single Window (NSW).

VII. Technical implementation

Hazmat data is reported at national level to the port system or NSW system and then made available to other Member States via SafeSeaNet (SSN).

SSN is a network of national systems in Member States which are linked to a central SSN system that acts as a nodal point. The central SSN system stores port call data which enables rapid, effective response to users' requests.

The central SSN system provides different alternative mechanisms to enable the exchange and sharing of datasets and information:

- System-to-system interface, which allows exchange of data between the national and central SSN applications; any other external system and the central SSN;
- graphical user interface providing access to port call data;
- app for mobile devices (IMS app) providing access to the current maritime picture on smart phones and tablets.

Hazmat data is available online for a minimum of 2 months from the departure of the ship from a port. The data is archived for at least 5 years and may be provided upon request.

VIII. Conditions of Access

In accordance with the Interface and Functionalities Control Document (IFCD), Hazmat data is available to EU Member States' authorities executing functions in the maritime domain, Ports, EMSA, EC and other EU bodies users. Ports can only request the details of Hazmat for vessels arriving or departing to/from their port.

Access to other communities may be requested, either on an ad hoc basis (to satisfy a given need during a given period), or in the form of an agreement (MoU), which allows access to SSN by specific users who are involved in pilot projects, but who are outside the SSN legal framework. In each case, access will only be granted to information relevant to their mandate. The access rights for each user profile shall be determined by a decision of the HLSG⁹ for the specific agreed purpose.

IX. Status of implementation

This dataset is already available for all ship calls to EU ports and made available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users.

X. Dissemination channels

The data is currently available as a feed integrated into the SafeSeaNet Ecosystem Graphical User Interface (SEG) for the Member State and Institutional operations, including EFCA IMS.

XI. Points of contact

EMSA's Maritime Support Services (MSS)

Tel: +351 211 209 415

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Email: MaritimeSupportServices@emsa.europa.eu

⁹ High Level Steering Group for Governance of the Digital Maritime System and Services (HLSG) – The governance group defined in Annex III of Directive 2002/59/EC (as amended), which comprises MS and Commission representatives, and which has the tasks defined in Commission Decision (EU) 2016/566 of 11 April 2016 (Repealing decision 2009/584/EC of 31 July 2009).

1.3 Dataset 1.3 Waste

I. Data group

SSN Voyage related information

II. Short description

Information on ship-generated waste and cargo residues which should be sent in accordance with Article 6 of Directive 2000/59/EC.

III. Agency responsible for dataset

EMSA

IV. Data elements

Information on ship identification: IMO number, MMSI number, Call Sign, Ship name and Flag.

Information on ship call to a port:

- Last port - ports from which the vessel is coming from.
- ETD from Last Port - Estimated time of departure from Last port.
- Port of Call - port to which the vessel is heading to.
- ETA to Port of Call - Estimated time of arrival to Port of Call.
- ETD from Port of Call - Estimated time of departure from Port of Call.
- Next Port - Subsequent port.
- ETA to Next Port - Estimated time of arrival to Next Port.

Information on waste and cargo residues:

- Last port delivered - Last port where ship-generated waste was delivered.
- Last port delivered date - Last date when ship-generated waste was delivered.
- Waste delivery type - If ship delivers all, some or none of its waste in the port she reports to.
- Waste type - Type of waste (list of types available below).
- Waste type code - Code of waste type.
- Waste type description - Free text description of waste type.
- Amount to be delivered - Quantity in cubic metres (m³) of waste to be delivered in the port of call. This can be an estimate. For the main waste types, zero ('0') should be used if there is no quantity to be reported.
- Maximum dedicated storage capacity - Maximum dedicated storage capacity for this type of waste in cubic metres (m³).
- Amount retained on board - Quantity in cubic metres (m³) of waste to be retained on board. For the main waste types, zero ('0') should be used if there is no quantity to be reported.
- Port of delivery of remaining waste - Name of the port where the remaining waste will be disposed of. This should be understood as the 'next port of call', as it is for the authorities of the next port of call to evaluate if the ship in question may proceed further to another port considering the available storage capacity.
- Estimated amount of waste to be generated - Estimate amount of waste to be generated between port of call and next port of call in cubic metres (m³).
- Amount of waste delivered at last port of delivery - Actual amount of waste (per type) delivered in the last port of delivery in cubic meters (m³). For the main waste types, zero ('0') should be used if there is no quantity to be reported.

V. Legal basis

Article 6 of Directive 2000/59/EC.

VI. Scope and source of data

All ships, apart from fishing vessels, recreational craft, warships, naval auxiliary or other ship owned or operated by a State and used, for the time being, only on government non-commercial service.

Waste data is provided by the ships' masters, agents or operators to the port authority before ship arrival either directly in the port system or through the National Single Window (NSW).

VII. Technical implementation

Waste data is reported at national level to the port system or NSW system and then made available to other Member States via SafeSeaNet (SSN).

SSN is a network of national systems in Member States which are linked to a central SSN system that acts as a nodal point.

The central SSN system provides different alternative mechanisms to enable the exchange and sharing of datasets and information:

- System-to-system interface, which allows exchange of data between the national and central SSN applications; any other external system and the central SSN;
- graphical user interface providing access to port call data;
- app for mobile devices (IMS app) providing access to the current maritime picture on smart phones and tablets.

Waste data is available online for a minimum of 2 months from the departure of the ship from a port. The data is archived for at least 5 years and may be provided upon request.

VIII. Conditions of Access

In accordance with the Interface and Functionalities Control Document (IFCD), Waste data is available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users. Ports can only request the details of Waste for vessels calling their port.

Access to other communities may be requested, either on an ad hoc basis (to satisfy a given need during a given period), or in the form of an agreement (MoU), which allows access to SSN by specific users who are involved in pilot projects, but who are outside the SSN legal framework. In each case, access will only be granted to information relevant to their mandate. The access rights for each user profile shall be determined by a decision of the HLSG¹⁰ for the specific agreed purpose.

IX. Status of implementation

This dataset is already available for all ship calls to EU ports and made available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users.

X. Dissemination channels

The data is currently available as a feed integrated into the SafeSeaNet Ecosystem Graphical User Interface (SEG) for the Member State and Institutional operations, including EFCA IMS.

XI. Points of contact

EMSA's Maritime Support Services (MSS)

Tel: +351 211 209 415

Fax: +351 211 209 480

Email: MaritimeSupportServices@emsa.europa.eu

¹⁰ High Level Steering Group for Governance of the Digital Maritime System and Services (HLSG) – The governance group defined in Annex III of Directive 2002/59/EC (as amended), which comprises MS and Commission representatives, and which has the tasks defined in Commission Decision (EU) 2016/566 of 11 April 2016 (Repealing decision 2009/584/EC of 31 July 2009).

1.4 Dataset 1.4 Security

I. Data group

SSN Voyage related information

II. Short description

Information on ship's security which should be sent in accordance with Article 6 of Regulation (EC) 725/2004.

III. Agency responsible for dataset

EMSA

IV. Data elements

Information on ship identification: IMO number, MMSI number, Call Sign, Ship name and Flag.

Additional information about a ship:

- Certificate of registry - Port - Port where the certificate of registry was issued.
- Inmarsat call number - Number indicating the location of the ship by satellite services of Inmarsat.
- Gross tonnage - The measure of the overall size of a ship determined in accordance with the provisions of the International Convention on Tonnage Measurement of Ships, 1969.
- Ship type - Code specifying the type of means of transport.
- Name of company - Name of ship's operating company, as defined in the International Safety Management (ISM) Code.
- IMO company identification number - IMO company identification number.

Information on security:

- Port facility - Facility as defined in ISPS.
 - Name of agent - Name of the organisation representing the ship in the context of the call in the port. This may be the Company or an agent, dependent on circumstances.
- Contact details of agent - Contact details of agent at port of call.
- Purpose of call - Primary purpose of the call.
- Brief description of on-board cargo - This is a short text giving an overview of what cargo the ship carries. This shall also contain brief details of any harmful substances and gases that could endanger persons or the environment.
- Last calls at port facilities - Last calls at port facilities.
 - Port - Port of call.
 - Port facility - Port facility identified by its IMO port facility number as in GISIS database.
 - Port facility LOCODE - Five characters LOCODE of the port facility as in the IMO GISIS maritime security database.
 - Port facility number - 4 digits facility code as in the IMO GISIS maritime security database.
 - Date of arrival - Actual date of arrival.
 - Date of departure - Actual date of departure.
 - Security level - The security level at which the ship operated in the port facility.
 - Special or additional security measures - Special or additional security measures taken by the ship during call.
- CSO name - Full name of the Company Security Officer. The CSO is the person designated by the Company for ensuring that a ship security assessment is carried out; that a ship security plan is developed, submitted for approval, and thereafter implemented and maintained, and for liaison with port facility security officers and the ship security officer.
- CSO contact details - Company Security Officer's 24-hour contact details: phone, fax, e-mail.
- Valid ISSC - Does the ship have a valid International Ship Security Certificate (ISSC)? This is a yes/no data element.
- Reason for non-valid ISSC - The reasons why the ship does not have a valid ISSC.
- ISSC - Required by the ISPS Code, the International Ship Security Certificate or Interim International Ship Security Certificate certifies that the security system and any associated security equipment of the

ship has been verified in accordance with section 19.1 of part A of the ISPS Code; that the verification showed that the security system and any associated security equipment of the ship is in all respects satisfactory and that the ship complies with the applicable requirements of Chapter XI-2 of SOLAS and part A of the ISPS Code; and that the ship is provided with an approved Ship Security Plan

- ISSC Type - To indicate if the ship is provided with an International Ship Security Certificate or an Interim International Ship Security Certificate.
- ISSC issuer type - Type of organization (Administration or Recognized Security Organization)
- ISSC issuer - Name of the issuing body.
- ISSC expiry date - Date indicating when the ISSC will be expired
- Approved security plan on board - This is a yes/no data element. Indicates if the ship has an approved security plan on board.
- Current ship security level - Ship's current security level according to the ISPS provisions:
 - Security Level 1: normal - the level at which ships and port facilities normally operate;
 - Security Level 2: heightened - the level applying for as long as there is a heightened risk of a security incident;
 - Security Level 3: exceptional - the level applying for the period of time when there is the probable or imminent risk of a security incident, even if it may not be possible to identify the specific target.
- Ship to ship activities - Ship-to-ship activities, in chronological order (most recent first), which were carried out during the last 10 calls at port facilities
 - Location - Location as a port, a geographic position and/or a named location.
 - LOCODE - United Nations Code for Trade and Transport Locations.
 - Latitude - Latitude in decimal degrees.
 - Longitude - Longitude in decimal degrees.
 - Location name - Full name of the location.
 - Activity - Description of ship-to-ship activity performed.
 - Security measures - Security measures applied.
 - Security - related matter to report - Security-related matter to report, if any.

V. Legal basis

Article 6 of Regulation (EC) 725/2004.

VI. Scope and source of data

Scope:

- a. All ships engaged in international voyages (passenger ship regardless of tonnage and cargo ships ≥ 500 GT and mobile offshore drilling units);
- b. Class A passenger ships operating in domestic services;
- c. Other categories of ships operating domestic services other than those referred in “b”.

Security data is provided by the ships' masters, agents or operators to port authority before ship arrival either directly in the port system or through the National Single Window (NSW).

VII. Technical implementation

Security data is reported at national level to the port system or NSW system and then made available to other Member States via SafeSeaNet (SSN).

The central SSN system stores only an indication of whether a security notification was provided and what is the security level of a ship. The details (e.g. last calls at port facilities) are stored at national level and are available upon request.

SSN is a network of national systems in Member States which are linked to a central SSN system that acts as a nodal point.

The central SSN system provides different alternative mechanisms to enable the exchange and sharing of datasets and information:

- System-to-system interface, which allows exchange of data between the national and central SSN applications; any other external system and the central SSN;
- graphical user interface providing access to port call data;
- app for mobile devices (IMS app) providing access to the current maritime picture on smart phones and tablets.

Security data is available online for a minimum of 2 months from the departure of the ship from a port. The data is archived for at least 5 years and may be provided upon request.

VIII. Conditions of Access

In accordance with the Interface and Functionalities Control Document (IFCD), Security data is available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users. Ports can only request the details of Security for vessels calling their port.

Access to other communities may be requested, either on an ad hoc basis (to satisfy a given need during a given period), or in the form of an agreement (MoU), which allows access to SSN by specific users who are involved in pilot projects, but who are outside the SSN legal framework. In each case, access will be granted only to information relevant to their mandate. The access rights for each user profile shall be determined by a decision of the HLSG¹¹ for the specific agreed purpose.

IX. Status of implementation

This dataset is already available for all ship calls to EU ports and made available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users.

X. Dissemination channels

The data is currently available as a feed integrated into the SafeSeaNet Ecosystem Graphical User Interface (SEG) for the Member State and Institutional operations, including EFCA IMS.

XI. Points of contact

EMSA's Maritime Support Services (MSS)

Tel: +351 211 209 415

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¹¹ High Level Steering Group for Governance of the Digital Maritime System and Services (HLSG) – The governance group defined in Annex III of Directive 2002/59/EC (as amended), which comprises MS and Commission representatives, and which has the tasks defined in Commission Decision (EU) 2016/566 of 11 April 2016 (Repealing decision 2009/584/EC of 31 July 2009).

1.5 Dataset 1.5 Bunkers

I. Data group

SSN Voyage related information

II. Short description

Information about bunkers onboard ships to be exchanged between Member States according to their national requirements.

III. Agency responsible for dataset

EMSA

IV. Data elements

Information on ship identification: IMO number, MMSI number, Call Sign, Ship name and Flag.

Information on ship call to a port:

- Last port - ports from which the vessel is coming from.
- ETD from Last Port - Estimated time of departure from Last port.
- Port of Call - port to which the vessel is heading to.
- ETA to Port of Call - Estimated time of arrival to Port of Call.
- ETD from Port of Call - Estimated time of departure from Port of Call.
- Next Port - Subsequent port.
- ETA to Next Port - Estimated time of arrival to Next Port.

Information on bunkers:

- Bunker type - characteristics of the bunkers carried on board (e.g. marine gas oil, marine diesel oil, etc.)
- Bunker description - free text description of bunkers.
- Quantity - estimated quantity of bunkers per type.
- Value - value of quantity.
- Unit - unit of quantity.

V. Legal basis

Information on bunkers, carried onboard ships leaving or bound for an EU port is to be made available via SSN only by those Member States that require that information on bunkers onboard is reported in their National Single Window according to their national legislation using FAL 3 - Ship's Store Declaration.

VI. Scope and source of data

Unless stated otherwise, all ships of 300 gross tonnage and upwards

Bunkers data is provided by the ships' masters, agents or operators to port authority directly in the Port system or through the National Single Window (NSW). Information on bunkers may be submitted before the arrival and at the time of departure of ships whenever this information is required by the national legislation applicable in the port of call and collected through the NSW using the FAL 3 - Ship's Store Declaration.

VII. Technical implementation

Bunkers data is reported at national level to a port system or NSW system and then made available to other Member States via SafeSeaNet (SSN).

SSN is a network of national systems in Member States which are linked to a central SSN system that acts as a nodal point. The central SSN system stores only indication whether information about bunkers on board is available. The details (e.g. bunker type, quantity) are stored at national level and are available upon request.

The central SSN system provides different alternative mechanisms to enable the exchange and sharing of datasets and information:

- System-to-system interface, which allows exchange of data between the national and central SSN applications; any other external system and the central SSN;
- graphical user interface providing access to port call data;

- app for mobile devices (IMS app) providing access to the current maritime picture on smart phones and tablets.

Bunkers data is available online for a minimum of 2 months from the departure of the ship from a port. The data is archived for at least 5 years and may be provided upon request.

VIII. Conditions of Access

In accordance with the Interface and Functionalities Control Document (IFCD), Bunkers data is available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users. Ports can only request the details of Bunkers for vessels calling their port.

Access to other communities may be requested, either on an ad hoc basis (to satisfy a given need during a given period), or in the form of an agreement (MoU), which allows access to SSN by specific users who are involved in pilot projects, but who are outside the SSN legal framework. In each case, access will only be granted to information relevant to their mandate. The access rights for each user profile shall be determined by a decision of the HLSG¹² for the specific agreed purpose.

IX. Status of implementation

This dataset is currently available for ship calls to Croatia, Iceland, Italy, Lithuania, Malta, Norway, Poland, Romania, Slovenia and Sweden. It is made available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users.

X. Dissemination channels

The data is currently available as a feed integrated into the SafeSeaNet Ecosystem Graphical User Interface (SEG) for the Member State and Institutional operations, including EFCA IMS.

XI. Points of contact

EMSA's Maritime Support Services (MSS)

Tel: +351 211 209 415

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¹² High Level Steering Group for Governance of the Digital Maritime System and Services (HLSG) – The governance group defined in Annex III of Directive 2002/59/EC (as amended), which comprises MS and Commission representatives, and which has the tasks defined in Commission Decision (EU) 2016/566 of 11 April 2016 (Repealing decision 2009/584/EC of 31 July 2009).

1.6 Dataset 1.6 Persons on board passenger ships

I. Data group

SSN Voyage related information

II. Short description

Information on the persons on board passenger ships (passenger and crew list data) to be made available to designated authorities with SAR function in each Member State, in the event of an emergency or in the aftermath of an accident (Article 10 of Directive 98/41/EC as amended). The passenger and crew data should be implemented in SSN v5, scheduled in operation 2021.

III. Agency responsible for dataset

EMSA

IV. Data elements

Information on the persons on board passenger ships:

- Name;
- Forename;
- Gender;
- Nationality;
- Date of birth;
- Information concerning special care or assistance (when volunteered by a passenger);
- Contact number in case of an emergency (when volunteered by a passenger) (If the MS so chooses).

V. Legal basis

Article 5(2) of Council Directive 98/41/EC of 18 June 1998 on the registration of persons sailing on board passenger ships operating to or from ports of the Member States of the Community, as amended.

Article 5(3) and Annex Part A.7 of the Directive 2010/65/EU of the European Parliament and of the Council of 20 October 2010 on reporting formalities for ships arriving in and/or departing from ports of the Member States, as amended.

VI. Scope and source of data

For all passenger ships for voyages of more than 20 NM that call a port of a Member State, except passenger ships exclusively engaged in port areas and inland waterways.

The information is collected by "Passenger Registrar" appointed by the passenger ship's Company and reported in the National Single Window (NSW) by the agent or operator upon the passenger ship's departure.

VII. Technical implementation

Information on the persons on board passenger ships is reported at national level to NSW system and then made available to other Member States via SafeSeaNet (SSN).

SSN is a network of national systems in Member States which are linked to a central SSN system that acts as a nodal point. The notification exchanged by central SSN system is accessible upon request to the national SSN system holding the detailed information through a request/response mechanism.

- System-to-system interface, which allows exchange of data between the national and central SSN applications; any other external system and the central SSN;
- graphical user interface providing access to port call data;
- app for mobile devices (IMS app) providing access to the current maritime picture on smart phones and tablets.

Information on the persons on board passenger ships is available until the voyage is safely completed and no more than 60 days after departure. In the event of emergency or accident, the information remains available until any investigation or judiciary proceedings are completed.

VIII. Conditions of Access

In accordance with Article 10 (2) each Member State shall designate the authority that will have access to the information required under this Directive. Member States shall ensure that, in the event of an emergency or in the aftermath of an accident, that designated authority has immediate access to the information required under this Directive.

IX. Status of implementation

This dataset is under implementation in SSN v5, scheduled in operation 2021.

X. Dissemination channels

The data will be available for the Member State designated authorities via the system-to-system and web interfaces of SafeSeaNet (i.e. SEG).

XI. Points of contact

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1.7 Dataset 1.7 Number of persons on board

I. Data group

SSN Voyage related information

II. Short description

Information on the total number of persons on board the ship as required by Directive 2002/59/EC as amended.

III. Agency responsible for dataset: EMSA

IV. Data elements

Information on the total number of persons (POB).

V. Legal basis

Article 4 of the Directive 2002/59/EC (as amended) of the European Parliament and of the Council of 27 June 2002 establishing a Community vessel traffic monitoring and information system and repealing Council Directive 93/75/EEC, as amended (VTMIS Directive).

VI. Scope and source of data

For 24 hours pre-arrival notifications all ships of 300 gross tonnage and upwards, except:

- warships, naval auxiliaries and other ships owned or operated by a Member State and used for non-commercial public service;
- fishing vessels, traditional ships and recreational craft with a length of less than 45 metres;
- bunkers on ships below 1,000 gross tonnage and ships' stores and equipment for use on board all ships.

Number of persons on board is provided by the ships' masters, agents or operators to port authority before ship arrival either directly in the port system or through the National Single Window (NSW).

VII. Technical implementation

Number of persons on board is reported at national level to a port system or NSW system and then made available to other Member States via SafeSeaNet (SSN).

SSN is a network of national systems in Member States which are linked to a central SSN system that acts as a nodal point. The central SSN system stores port call data which enables rapid, effective response to users' requests.

The central SSN system provides different alternative mechanisms to enable the exchange and sharing of datasets and information:

- System-to-system interface, which allows exchange of data between the national and central SSN applications; any other external system and the central SSN;
- graphical user interface providing access to port call data;
- app for mobile devices (IMS app) providing access to the current maritime picture on smart phones and tablets.

Number of persons on board is available online for a minimum of 2 months from the departure of the ship from a port. The data is archived for at least 5 years and may be provided upon request.

VIII. Conditions of Access

In accordance with the Interface and Functionalities Control Document (IFCD), Number of persons on board is available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users.

Access to other communities may be requested, either on an ad hoc basis (to satisfy a given need during a given period), or in the form of an agreement (MoU), which allows access to SSN by specific users who are involved in pilot projects, but who are outside the SSN legal framework. In each case, access will only be granted to information relevant to their mandate. The access rights for each user profile shall be determined by a decision of the HLSG for the specific agreed purpose.

IX. Status of implementation

This dataset is already available for all ship calls to EU ports and made available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users.

X. Dissemination channels

The data is currently available as a feed integrated into the SafeSeaNet Ecosystem Graphical User Interface (SEG) for the Member State and Institutional operations.

XI. Points of contact

EMSA's Maritime Support Services (MSS)

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1.8 Dataset 1.8 Incidents / accidents

I. Data group

SSN Voyage related information

II. Short description

Information on accidents and incidents which have occurred at sea (as per Articles 16, 17 and 25 of Directive 2002/59/EC as amended) and information on ships which have not delivered their ship generated waste and cargo residues (as per Articles 11.2.d and 12.3 of Directive 2000/59/EC).

III. Agency responsible for dataset

EMSA

IV. Data elements

The incident types that are reported to SSN are:

- a. SITREP Incident Report: related to ship safety and seaworthiness;
- b. POLREP Incident Reports: Pollution reports that cover any situation that is liable to lead to the pollution of the waters or coastline of a Member State or for reporting those ships for which where there is proof or presumptive evidence of a deliberate illegal discharge;
- c. Lost and Found objects Incident Reports: reports that cover containers or packages seen drifting at sea;
- d. Failed notification Incident Report: reports on ships which have failed to comply with the notification and reporting requirements;
- e. VTS rules infringement Incident Report: reports on ships which have failed to comply with the applicable rules in ship routing systems and VTSS that are within the responsibility of a Member State;
- f. Banned ship Incident Report: reports on ships which have been refused access to ports of Member States or which have been the subject of a report or notification by a Member State in accordance with Annex I-1 to Council Directive 95/21/EC of 19 June 1995 on port State Control of shipping;
- g. Insurance failure Incident Report: reports on ships which have failed to notify that they have, or do not have, insurance certificates or financial guarantees required under Community legislation and/or international rules;
- h. Pilot or port Incident Report: reports on ships which have been reported by pilots or port authorities as having apparent anomalies which may prejudice their safe navigation or create a risk for the environment;
- i. Waste Incident Reports: reports on ships which have not delivered their ship-generated waste and cargo residues;
- j. Other Incident Report: type "other" can be notified to report other situations potentially posing a potential hazard to shipping or a threat to maritime safety, the safety of individuals or the environment that Member States wishes to share on a voluntary basis.

V. Legal basis

Articles 16, 17, 21 and 25 of the Directive 2002/59/EC of the European Parliament and of the Council of 27 June 2002 establishing a Community vessel traffic monitoring and information system and repealing Council Directive 93/75/EEC, as amended (VTMIS Directive).

In addition, Article 12.3 of Directive 2000/59/EC as amended on port reception facilities for ship-generated waste and cargo residues (PRF Directive) provides a legal basis to exchange information regarding the identification of ships which have not delivered their ship-generated waste and cargo residues in accordance with the PRF Directive.

VI. Scope and source of data

Masters of ships sailing within the SAR area and/or EEZ (or equivalent) of a Member State must send Incident Reports to the coastal station responsible for that area should their ships be involved in an accident or incident. According to Article 22.2 of Directive 2002/59/EC, as amended, Member States should define the geographical area and the designated coastal stations to whom the reports should be made.

In principle, Incident reports should (according to Article 2 of Directive 2002/59/EC, as amended) be sent for ships of 300 gross tonnage and upwards excluding:

- a. warships, naval auxiliaries and other ships owned or operated by a Member State and used for non-commercial public service, and;
- b. fishing vessels, traditional ships and recreational craft with a length of less than 45 metres.

Waste incident reports should, according to article 11.2 of Directive 2000/59/EC, be sent for ships, other than fishing vessels and recreational crafts, authorised to carry no more than 12 passengers. However, waste incident reports may also be sent on voluntary basis for any ship, irrespective of their flag, calling at, or operating within, a port of a Member State, and acting in infringement of Directive 2000/59/EC

VII. Technical implementation

Information on accidents and incidents which have occurred at sea is reported at national level to the national SSN system and then made available to other Member States via SafeSeaNet (SSN).

The central SSN system stores information on accidents and incidents which enables rapid, effective response to users' requests. In addition, the Incident Reports can be distributed to the relevant Member States along the planned route of the vessel and to the flag State (if the vessel is flying an EU flag).

SSN is a network of national systems in Member States which are linked to a central SSN system that acts as a nodal point.

The central SSN system provides different alternative mechanisms to enable the exchange and sharing of datasets and information:

- System-to-system interface, which allows exchange of data between the national and central SSN applications; any other external system and the central SSN;
- graphical user interface providing access to port call data;
- app for mobile devices (IMS app) providing access to the current maritime picture on smart phones and tablets.

Information on accidents and incidents which have occurred at sea is available online for a minimum of 5 years. The data is archived for an additional 5 years and may be provided upon request.

VIII. Conditions of Access

In accordance with the Interface and Functionalities Control Document (IFCD), information on accidents and incidents is available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users.

Access to other communities may be requested, either on an ad hoc basis (to satisfy a given need during a given period), or in the form of an agreement (MoU), which allows access to SSN by specific users who are involved in pilot projects, but who are outside the SSN legal framework. In each case, access will only be granted to information relevant to their mandate. The access rights for each user profile shall be determined by a decision of the HLSCG for the specific agreed purpose.

IX. Status of implementation

This dataset is already available for all reported incidents in EU and made available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users.

X. Dissemination channels

The data is currently available as a feed integrated into the SafeSeaNet Ecosystem Graphical User Interface (SEG) for the Member State and Institutional operations, including EFCA IMS. The current known next port call

and last known port of all are also provided via system-to-system to Frontex and are available via the EUROSUR Fusion Services (EFS).

XI. Points of contact

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1.9 Dataset 1.9 Exemptions

I. Data group

SSN Voyage related information

II. Short description

Information on exemptions from the reporting requirements related to the Port call (pre-arrival 24 hours), Hazmat (as per Article 15 of Directive 2002/59/EC), Security (as per Article 7 of Regulation (EC) 725/2004) and Waste (as per Article 9 of Directive 2000/59/EC).

III. Agency responsible for dataset

EMSA

IV. Data elements

Information on exemption:

- Ship identification: IMO Number, MMSI Number, Call Sign, Ship Name.
- Type of exemption (Pre-arrival, Hazmat, Waste or Security).
- Company.
- Country issuing the exemption.
- Authority issuing the exemption.
- Contact details for obtaining additional information on the exemption (Phone, Fax).
- Identification of the scheduled service.
- Identification of ports on the scheduled service to which exemption applies.

V. Legal basis

Article 15 of the Directive 2002/59/EC (as amended) of the European Parliament and of the Council of 27 June 2002 establishing a Community vessel traffic monitoring and information system and repealing Council Directive 93/75/EEC, as amended (VTMIS Directive).

Article 7 of Regulation (EC) 725/2004 of the European Parliament and of the Council of 31 March 2004 on enhancing ship and port facility security.

Article 9 of Directive 2000/59/EC (as amended) of the European Parliament and of the Council of 27 November 2000 on port reception facilities for ship-generated waste and cargo residues.

VI. Scope and source of data

Same scope as the correspondent notifications for port call (pre-arrival 24 hours), Hazmat, Security and Waste. Exemptions may be provided by the Member States responsible authorities for ships engaged in scheduled services performed between ports located on their territory, provided that the conditions as defined in the legal basis are met.

VII. Technical implementation

Information on exemptions is reported at national level or in central SSN system directly and then made available to other Member States via SafeSeaNet (SSN).

SSN is a network of national systems in Member States which are linked to a central SSN system that acts as a nodal point. The central SSN system stores information on exemptions which enables to complete the information provided by the notifications in case an exemption is granted to the scheduled service.

The central SSN system provides different alternative mechanisms to enable the exchange and sharing of datasets and information:

- System-to-system interface, which allows exchange of data between the national and central SSN applications; any other external system and the central SSN;
- graphical user interface providing access to port call data;
- app for mobile devices (IMS app) providing access to the current maritime picture on smart phones and tablets.

- Information on exemptions are available online for during the its validity period and for the next 5 years following expiry date. The data is archived for at least 5 years and may be provided upon request.

VIII. Conditions of Access

In accordance with the Interface and Functionalities Control Document (IFCD), information on exemptions is available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users.

Access to other communities may be requested, either on an ad hoc basis (to satisfy a given need during a given period), or in the form of an agreement (MoU), which allows access to SSN by specific users who are involved in pilot projects, but who are outside the SSN legal framework. In each case, access will only be granted to information relevant to their mandate. The access rights for each user profile shall be determined by a decision of the HLSG¹³ for the specific agreed purpose.

IX. Status of implementation

This dataset is already available for all ship calls to EU ports and made available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users.

X. Dissemination channels

The data is currently available as a feed integrated into the SafeSeaNet Ecosystem Graphical User Interface (SEG) for the Member State and Institutional operations, including EFCA IMS. The current known next port call and last known port of all are also provided via system-to-system to Frontex and are available via the EUROSUR Fusion Services.

XI. Points of contact

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¹³ High Level Steering Group for Governance of the Digital Maritime System and Services (HLSG) – The governance group defined in Annex III of Directive 2002/59/EC (as amended), which comprises MS and Commission representatives, and which has the tasks defined in Commission Decision (EU) 2016/566 of 11 April 2016 (Repealing decision 2009/584/EC of 31 July 2009).

2. Vessel Positions

Vessel positions from a variety of sources, including those exchanged via SafeSeaNet. These positions are generated by vessels transmitting position information due to the respective legal requirements (cooperative vessels).

2.1 Dataset 2.1 MRS

I. Data group

Vessel Positions

II. Short description

Ship position and other dynamic information (speed, course, draft, etc.) as reported to Mandatory Ship Reporting systems (MRS) adopted by the IMO.

III. Agency responsible for dataset

EMSA

IV. Data elements

- Ship identification: IMO number, MMSI, Ship Name and Call sign.
- Dynamic information: Ship's position (Latitude and Longitude), Position timestamp in UTC, Course over ground (COG), Speed over ground (SOG) and Navigational status.
- Voyage related information: Destination and Estimated Time of Arrival (ETA), Cargo and, if dangerous goods present on board, quantity and IMO class, Total number of persons on board and Characteristics and estimated quantity of bunker fuel, for ships of more than 1 000 gross tonnage

V. Legal basis

SOLAS Chapter V Regulation 11.

Article 5 of the Directive 2002/59/EC.

VI. Scope and source of data

Scope of each Mandatory Ship Reporting system is defined in the IMO Resolution establishing this system. MRS data is reported by ships participating in MRS system to coastal authorities of the Member States and made available to other national systems of Member States via SafeSeaNet system.

VII. Technical implementation

MRS data is reported by ship to coastal station defined in the IMO Resolution establishing Mandatory Ship Reporting system. Reports are given using AIS (Automatic Information System), VHF voice or by alternative communication means: website, e-mail, fax, SATCom or mobile phone. This is clearly defined for each MRS system.

Once an MRS report is received and validated by the MRS authority, it is stored in a database. Then the relevant MRS information is automatically extracted and submitted to the central SSN via the national SSN application and made available to other Member States.

SSN is a network of national systems in Member States which are linked to a central SSN system that acts as a nodal point. The central SSN system stores part of information reported to MRS (time, position of report, PoB, ETA and Next Port) and other details (i.e. COG, SOG, hazmat, bunkers, etc.) are stored at national level and are available upon request.

The central SSN system provides different alternative mechanisms to enable the exchange and sharing of datasets and information:

- System-to-system interface which allows exchange of data between the national and central SSN applications; any other external system and the central SSN;
- Graphical user interface providing access to MRS data;

- App for mobile devices (IMS App) providing access to current maritime picture on smart phones and tablets.

MRS data is available online for a minimum of 2 months from the reporting date to MRS. The data is archived for at least 5 years and may be provided upon request.

VIII. Conditions of Access

In accordance with the Interface and Functionalities Control Document (IFCD), MRS data is available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users.

Access to other communities may be requested, either on an ad hoc basis (to satisfy a given need during a given period), or in the form of an agreement (MoU), which allows access to SSN by specific users who are involved in pilot projects, but who are outside the SSN legal framework. In each case, access will only be granted to information relevant to their mandate. The access rights for each user profile shall be determined by a decision of the HLSG for the specific agreed purpose.

IX. Status of implementation

This dataset is already available for all MRS system established by IMO in EU waters including Norway and Iceland. It is made available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users.

X. Dissemination channels

The data is currently available as a feed integrated into the SafeSeaNet Ecosystem Graphical User Interface (SEG) for the Member State and Institutional operations, including EFCA IMS.

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2.2 Dataset 2.2 T-AIS

I. Data group

Vessel Positions

II. Short description

Position information provided by ships via on board Automatic Identification System and received automatically by Member State's terrestrial shore-based AIS installations (T-AIS).

III. Agency responsible for dataset

EMSA

IV. Data elements

- Fixed/static information: MMSI, Call sign and Ship Name, IMO number, Length and beam and Type of ship
- Dynamic information: Ship's position with accuracy indication and integrity status, Position timestamp in UTC, Type of electronic position fixing device, Course over ground (COG), Speed over ground (SOG), True heading, Navigational status and Rate of turn (ROT).
- Voyage related information: Ship's draught, Hazardous cargo (type) and Destination and ETA

V. Legal basis

SOLAS Regulation V/19.2.4

Articles 6, 6a and 9 of the Directive 2002/59/EC.

VI. Scope and source of data

Since 2002, the SOLAS Regulation V/19.2.4 requires that all ships of 300 gross tonnage (GT) and upwards engaged on international voyages, cargo ships of 500 GT and upwards not engaged on international voyages and passenger ships irrespective of GT must have an AIS Class A onboard at all times.

In 2006, Class B AIS transponders were introduced (with fewer functionalities but at a cheaper cost) and since then even smaller vessels have voluntarily started to use AIS technology.

Since May 2014, following stricter EU legislation, any fishing vessel with an overall length of more than 15 metres and flying the flag of a Member State and registered in the Community, or operating in the internal waters or territorial sea of a Member State, or landing its catch in the port of a Member State is also obliged to be equipped with AIS.

AIS data is gathered by shore-based stations owned by the Member States and made available to other national systems of Member States via SafeSeaNet. This is done via a streaming interface which enables the constant flow of data (based on predefined criteria) between: the national systems and the central SSN system (either directly or via an AIS regional server).

VII. Technical implementation

AIS works by automatically broadcasting tracking information at regular intervals via a Very High Frequency (VHF) transmitter built into the transponder to shore-based receiving stations. The AIS transponders work in an autonomous and continuous mode and, presently, the two VHF frequencies used are 161.975Mhz (AIS1, or channel 87B) and 162.025Mhz (AIS2, or channel 88B).

EMSA provides different alternative mechanisms to retrieve T-AIS information:

- System-to-system interface which allows exchange of data between EMSA and the national system;
- Graphical user interface providing access to T-AIS data;
- App for mobile devices (IMS app) providing access to current maritime picture on smart phones and tablets.

T-AIS data is available online for a minimum of 30 months from the reporting date. The data is archived for at least 5 years and may be provided upon request.

VIII. Conditions of Access

In accordance with the Interface and Functionalities Control Document (IFCD), T-AIS data is available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users.

Access to other communities may be requested, either on an ad hoc basis (to satisfy a given need during a given period), or in the form of an agreement (MoU), which allows access to SSN by specific users who are involved in pilot projects, but who are outside the SSN legal framework. In each case, access will only be granted to information relevant to their mandate. The access rights for each user profile shall be determined by a decision of the HLSG for the specific agreed purpose.

IX. Status of implementation

This dataset is already available for EU coast including Norway and Iceland and made available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users.

X. Dissemination channels

The data is currently available as a feed integrated into the SafeSeaNet Ecosystem Graphical User Interface (SEG) for the Member State and Institutional operations, including EFCA IMS. This data is also provided via system-to-system to Frontex and is available via the EUROSUR Fusion Services (EFS).

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2.3 Dataset 2.3 T-AIS from SAFEMED

I. Data group

Vessel Positions

II. Short description

T-AIS information available to specific Member States having signed the relevant SLA with the SAFEMED countries (third countries with a coast in the Mediterranean Sea).

III. Agency responsible for dataset

EMSA

IV. Data elements

- Fixed/static information: MMSI, Call sign and Ship Name, IMO number, Length and beam and Type of ship
- Dynamic information: Ship's position with accuracy indication and integrity status, Position timestamp in UTC, Type of electronic position fixing device, Course over ground (COG), Speed over ground (SOG), True heading, Navigational status and Rate of turn (ROT)
- Voyage related information: Ship's draught, Hazardous cargo (type) and Destination and ETA

V. Legal basis

Service Level Agreement (SLA) on sharing T-AIS information to be signed by SAFEMED countries

Conditions of Use for the participation of the SAFEMED and BCSEA Countries in MAREΣ in phase 2

VI. Scope and source of data

Since 2002, the SOLAS Regulation V/19.2.4 requires that all ships of 300 gross tonnage (GT) and upwards engaged on international voyages, cargo ships of 500 GT and upwards not engaged on international voyages and passenger ships irrespective of GT must have an AIS Class A onboard at all times.

AIS data is gathered by shore-based stations owned by countries participating in SAFEMED project (i.e. Algeria, Egypt, Jordan, Israel, Libya, Lebanon, Morocco, Palestine and Tunisia).

VII. Technical implementation

AIS works by automatically broadcasting tracking information at regular intervals via a Very High Frequency (VHF) transmitter built into the transponder to shore-based receiving stations. The AIS transponders work in an autonomous and continuous mode and, presently, the two VHF frequencies used are 161.975Mhz (AIS1, or channel 87B) and 162.025Mhz (AIS2, or channel 88B).

EMSA provides different alternative mechanisms to retrieve T-AIS from SAFEMED:

- System-to-system interface which allows exchange of data between EMSA and the national system;
- Graphical user interface providing access to T-AIS data;
- App for mobile devices (IMS App) providing access to current maritime picture on smart phones and tablets.

T-AIS data is available online for a minimum of 30 months from the reporting date. The data is archived for at least 5 years and may be provided upon request.

VIII. Conditions of Access

In accordance with the Conditions of Use for the participation of the SAFEMED and BCSEA Countries in MAREΣ in phase 2, T-AIS data from SAFEMED are exchanged and made available to the MAREΣ participating States¹⁴, and T-AIS data of the MAREΣ participating States are made available to the SAFEMED participants.

¹⁴ The States participating in MAREΣ are Italy, Slovenia, Croatia, Greece, Bulgaria, Romania, Cyprus, Malta, Spain, France, Portugal and the UK (Gibraltar). Montenegro is participating in the MAREΣ sub-regional server and sharing T-AIS data with Italy, Croatia and Slovenia.

IX. Status of implementation

Currently Morocco, Tunisia and Jordan within the scope of the SAFEMED IV project, have signed the SLA, for the service to be used exclusively for pollution detection and preparedness.

The HLSG 5 meeting (Brussels, 2 July 2019) agreed Jordan can participate in MAREΣ and share their T-AIS data with them in accordance with the conditions set at the HLSG 4, for the duration of the pilot project. After receiving additional positive replies from other beneficiaries, the HLSG will be informed and invited to approve their participation.

X. Dissemination channels

The data will be available as a feed integrated into the SafeSeaNet Ecosystem Graphical User Interface (SEG) for the Member State participating in MAREΣ and to SAFEMED participants.

XI. Points of contact

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2.4 Dataset 2.3 T-AIS from BCSEA

I. Data group

Vessel Positions

II. Short description

T-AIS information available to specific Member States having signed the relevant SLA with the BCSEA countries (third countries with a coast in the Black and Caspian Sea).

III. Agency responsible for dataset

EMSA

IV. Data elements

- Fixed/static information: MMSI, Call sign and Ship Name, IMO number, Length and beam and Type of ship
- Dynamic information: Ship's position with accuracy indication and integrity status, Position timestamp in UTC, Type of electronic position fixing device, Course over ground (COG), Speed over ground (SOG), True heading, Navigational status and Rate of turn (ROT)
- Voyage related information: Ship's draught, Hazardous cargo (type) and Destination and ETA

V. Legal basis

Service Level Agreement (SLA) on sharing T-AIS information to be signed by BCSEA countries
Conditions of Use for the participation of the SAFEMED and BCSEA Countries in MAREΣ in phase 2

VI. Scope and source of data

Since 2002, the SOLAS Regulation V/19.2.4 requires that all ships of 300 gross tonnage (GT) and upwards engaged on international voyages, cargo ships of 500 GT and upwards not engaged on international voyages and passenger ships irrespective of GT must have an AIS Class onboard at all times.

AIS data is gathered by shore-based stations owned by countries participating in BCSEA project (i.e. Azerbaijan, Georgia, Iran, Kazakhstan, Moldova, Ukraine, Turkey and Turkmenistan).

VII. Technical implementation

AIS works by automatically broadcasting tracking information at regular intervals via a Very High Frequency (VHF) transmitter built into the transponder to shore-based receiving stations. The AIS transponders work in an autonomous and continuous mode and, presently, the two VHF frequencies used are 161.975Mhz (AIS1, or channel 87B) and 162.025Mhz (AIS2, or channel 88B).

EMSA provides different alternative mechanisms to retrieve T-AIS from BCSEA:

- System-to-system interface which allows exchange of data between EMSA and the national system;
- Graphical user interface providing access to T-AIS data;
- App for mobile devices (IMS app) providing access to current maritime picture on smart phones and tablets.

T-AIS data is available online for a minimum of 30 months from the reporting date. The data is archived for at least 5 years and may be provided upon request.

VIII. Conditions of Access

In accordance with the Conditions of Use for the participation of the SAFEMED and BCSEA Countries in MAREΣ in phase 2, T-AIS data from BCSEA are exchanged and made available to the MAREΣ participating States¹⁵, and T-AIS data of the MAREΣ participating States are made available to the BCSEA participants.

¹⁵ The States participating in MAREΣ are Italy, Slovenia, Croatia, Greece, Bulgaria, Romania, Cyprus, Malta, Spain, France, Portugal and the UK (Gibraltar). Montenegro is participating in the MAREΣ sub-regional server and sharing T-AIS data with Italy, Croatia and Slovenia.

IX. Status of implementation

Currently Georgia and Ukraine within the scope of the BCSEA Project, have signed the SLA, for the service to be used exclusively for pollution detection and preparedness.

The HLSG 5 meeting (Brussels, 2 July 2019) agreed Georgia and Ukraine can participate in MAREΣ and share their T-AIS data with them in accordance with the conditions set at the HLSG 4, for the duration of the pilot project. After receiving additional positive replies from other beneficiaries, the HLSG will be informed and invited to approve their participation.

X. Dissemination channels

The data will be available as a feed integrated into the SafeSeaNet Ecosystem Graphical User Interface (SEG) for the Member State participating in MAREΣ and to BCSEA participants.

XI. Points of contact

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2.5 Dataset 2.5 T-AIS from external providers

I. Data group

Vessel Positions

II. Short description

Position information provided by ships via on board Automatic Identification System and received automatically by terrestrial shore based AIS installations hosted by 3rd parties, namely commercial providers. This dataset is funded by Frontex and technically implemented by EMSA, under the EMSA-Frontex SLA.

III. Agency responsible for dataset

EMSA

IV. Data elements

- Fixed/static information: MMSI, Call sign and Ship Name, IMO number, Length and beam and Type of ship
- Dynamic information: Ship's position with accuracy indication and integrity status, Position timestamp in UTC, Type of electronic position fixing device, Course over ground (COG), Speed over ground (SOG), True heading, Navigational status and Rate of turn (ROT)
- Voyage related information: Ship's draught, Hazardous cargo (type) and Destination and ETA
- Transmission related information: Identification of base station which received the signal.

V. Legal basis

SOLAS Regulation V/19.2.4

VI. Scope and source of data

Since 2002, the SOLAS Regulation V/19.2.4 requires that all ships of 300 gross tonnage (GT) and upwards engaged on international voyages, cargo ships of 500 GT and upwards not engaged on international voyages and passenger ships irrespective of GT must have an AIS Class A onboard at all times. In 2006, Class B AIS transponders were introduced (with fewer functionalities but at a cheaper cost) and since then even smaller vessels have voluntarily started to use AIS technology.

Since May 2014, following stricter EU legislation, any fishing vessel with an overall length of more than 15 metres and flying the flag of a Member State and registered in the Community, or operating in the internal waters or territorial sea of a Member State, or landing its catch in the port of a Member State is also obliged to be equipped with AIS.

AIS data is gathered by shore-based stations owned by commercial entities and made available to national systems of Member States and other institutional users via EMSA's streaming interfaces, which enable a constant flow of data (based on predefined criteria) between the commercial provider, EMSA and end users.

VII. Technical implementation

AIS works by automatically broadcasting tracking information at regular intervals via a Very High Frequency (VHF) transmitter built into the transponder to shore-based receiving stations. The AIS transponders work in an autonomous and continuous mode and, presently, the two VHF frequencies used are 161.975Mhz (AIS1, or channel 87B) and 162.025Mhz (AIS2, or channel 88B).

EMSA provides different alternative mechanisms to retrieve T-AIS information:

- System-to-system interface;
- Graphical user interface providing access to T-AIS data;
- App for mobile devices (IMS App) providing access to current maritime picture on smart phones and tablets.

VIII. Conditions of Access

In accordance with the specifications in place between EMSA and the commercial provider, this commercial T-AIS data is available to EU Member States' authorities executing functions in the maritime domain, Ports, EMSA, EC and other EU bodies users.

Access to other communities may be requested, either on an ad hoc basis (to satisfy a given need during a given period), or in the form of an agreement (MoU). In each case, access will be granted only to information relevant to their mandate. The access rights for each user profile shall be determined by a decision of the HLSG for the specific agreed purpose.

IX. Status of implementation

As of Q1 2021 this dataset will be available for areas outside of SafeSeaNet coverage in the Eastern Mediterranean and Black Sea. The data will be made available to EU Member States' authorities executing functions in the maritime domain, Ports, EMSA, EC and other EU bodies users.

X. Dissemination channels

The data will be integrated into the SafeSeaNet Ecosystem Graphical User Interface (SEG) for the Member State and Institutional operations, including EFCA IMS, as well as via system-to-system to Frontex and will be available via the EUROSUR Fusion Services (EFS).

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2.6 Dataset 2.6 LRIT

I. Data group

Vessel Positions

II. Short description

Vessel position information automatically transmitted by as shipborne equipment via satellite communication networks.

III. Agency responsible for dataset

EMSA

IV. Data elements

- Positional data - The Global Navigation Satellite System (GNSS) position (latitude and longitude) of the ship (based on the WGS 84 datum).
- Time Stamp - The date and time (UTC) associated with the GNSS position.
- Ship identity - IMO identification number, ship name and the MMSI number of the ship.
- Ship flag - flag of the ship
- Ship Type - Code of the type of ship transmitting the LRIT information (ship types codes to be used in the LRIT system are defined in paragraph 1.2.3.3 to the annex of MSC.1/Circ.1259/Rev.7).
- Speed and Heading - ships flying the flags of EU LRIT CDC Participating Countries and fitted with Inmarsat C terminals (96.5% of the EU LRIT CDC terminals) also provide information on speed and heading when transmitting LRIT information.

V. Legal basis

Resolution MSC.202(81), adopted on 19 May 2006, amends the International Convention for the Safety of Life at Sea, 1974, as amended, by including Regulation 19-1 Long-range identification and tracking of ships.

VI. Scope and source of data

The following ship types engaged on international voyages must report automatically LRIT mandatory positions, every 6 hours, worldwide:

- Passenger ships including high-speed craft;
- Cargo ships, including high-speed craft, of 300GT and upwards; and
- Mobile offshore drilling units (MODU).

Ships fitted with an automatic AIS and operated exclusively within sea area A1 are not required to comply with LRIT regulation.

It is possible to increase the reporting up to intervals of 15 minutes.

Ships report these LRIT positions to a specific LRIT Data Centre (LRIT DC). It is possible to exchange LRIT positions between LRIT DCs via the LRIT International Data Exchange (LRIT IDE).

VII. Technical implementation

A ship in transit sends a position report via its shipborne equipment (different equipment from that used for AIS, which uses VHF communications systems). The message, which includes the shipborne equipment identifier, positional data latitude and longitude, and the date and time of the transmission, is received by a telecommunications satellite. The communication networks used for LRIT are Iridium and Inmarsat (C and M2M). The satellites are operated by a Communication Service Provider (CSP), which provides the communication infrastructure and services to link the various parts of the LRIT system, using communications protocols in order to ensure the end-to-end secure transfer of the LRIT information. The data is then transmitted to the Application Service Provider (ASP).

The ASP completes the LRIT information of the vessel by adding the ship identity (IMO identification number and the MMSI number for the ship), the ship type, as well as the date and time the position report is received and forwarded by the ASP. The new extended message generated by the ASP is then passed to an LRIT Data

Centre, which completes the ship identification by adding the ship name. The ASP also ensures that the LRIT information is routed in a reliable and secure manner.

In the particular case of the EU LRIT CDC, speed and heading is also added by the ASP for ships fitted with Inmarsat C terminals (96.5% of the EU LRIT CDC terminals)

The EU LRIT CDC includes several Participating Countries which are non-EU (Montenegro, Georgia and Tunisia, as on 01-2020). Nevertheless, LRIT data available for EU purposes includes only position data of ships flying an EU Member State flag after its agreement has been provided. Adequate data filtering is then applied.

The EU LRIT CDC system provides different alternative mechanisms to retrieve LRIT information:

- System-to-system interface which allows exchange of data between LRIT and the national or European system;
- EU LRIT CDC User Web Interface (UWI).

Data going back as far as June 2009, when the EU LRIT Data Centre was established, is available.

VIII. Conditions of Access

LRIT positions linked with a given ship belongs to the Flag this ship is flying. So, to receive LRIT positions from EU MSs ships, it is needed to request the agreement of each MS. This formality is done by EMSA, after receiving a formal request. To be noted that according to EMSA founding regulation, relevant vessel data and positioning can be provided only to competent national authorities and Union bodies.

After the agreements are received, data can be provided through a UWI or XML interface.

IX. Status of implementation

This dataset is already available to the following authorities:

- Flag States may request information on the location of their vessels around the world;
- Coastal States may request information on ships up to 1 000 nautical miles from their coasts irrespective of their flag;
- Port States may request information on those ships that have declared one of their ports as destination, irrespective of their location or flag;
- Search and rescue authorities, irrespective of the positions of the ships or their flag.

X. Dissemination channels

LRIT data is currently available:

- in the EU LRIT CDC web interface and is integrated into the SafeSeaNet Ecosystem Graphical User Interface (SEG);
- through an XML interface set-up securely and directly between EU LRIT DC and the requester data centre.
- As part of EUROSUR Fusion Services.

XI. Points of contact

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2.7 Dataset 2.7 SAT-AIS

I. Data group

Vessel Positions

II. Short description

Position information provided by ships via on board Automatic Identification System and received automatically by satellite communication systems (SAT-AIS).

III. Agency responsible for dataset

EMSA

IV. Data elements

- Fixed/static information: MMSI, Call sign and Ship Name, IMO number, Length and beam and Type of ship
- Dynamic information: Ship's position with accuracy indication and integrity status, Position timestamp in UTC, Type of electronic position fixing device, Course over ground (COG), Speed over ground (SOG), True heading, Navigational status and Rate of turn (ROT)
- Voyage related information: Ship's draught, Hazardous cargo (type) and Destination and ETA
- Ancillary information: Acquisition timestamp, Satellite ID, Ground station acquisition timestamp, Ground Station ID, Data Centre Ingestion Timestamp, Data Centre Delivery Timestamp, Data quality indicators (valid position report, invalid position report, uncertain position report) and Doppler shift

V. Legal basis

SOLAS Regulation V/19.2.4; SafeSeaNet Interface and Functionalities Control Document and Regulation (EC) No 1406/2002 followed by EMSA Work Programmes

VI. Scope and source of data

Since 2002, the SOLAS Regulation V/19.2.4 requires that all ships of 300 gross tonnage (GT) and upwards engaged on international voyages, cargo ships of 500 GT and upwards not engaged on international voyages and passenger ships irrespective of GT must have an AIS Class A onboard at all times. In 2006, Class B AIS transponders were introduced (with fewer functionalities but at a cheaper cost) and since then even smaller vessels have voluntarily started to use AIS technology.

Since May 2014, following stricter EU legislation, any fishing vessel with an overall length of more than 15 metres and flying the flag of a Member State and registered in the Community, or operating in the internal waters or territorial sea of a Member State, or landing its catch in the port of a Member State is also obliged to be equipped with AIS.

AIS data is gathered by shore-based stations owned by the Member States and made available to other national systems of Member States via SafeSeaNet. This is done via streaming interface which enables the constant flow of data (based on predefined criteria) between: the national systems and the central SSN system (either directly or via an AIS regional server).

VII. Technical implementation

AIS works by automatically broadcasting tracking information at regular intervals via a Very High Frequency (VHF) transmitter built into the transponder to shore-based receiving stations. The AIS transponders work in an autonomous and continuous mode and, presently, the two VHF frequencies used are 161.975Mhz (AIS1, or channel 87B) and 162.025Mhz (AIS2, or channel 88B). The radio signals, transmitted by the AIS transponders, are also received by dedicated payload of satellites operated under commercial, and national SAT-AIS programmes. The satellite services enable data acquisition outside the range of terrestrial AIS network coverage, including polar areas and complementing global maritime situational awareness picture.

EMSA provides different alternative mechanisms to retrieve SAT-AIS information:

- System-to-system interface which allows exchange of data between EMSA and the national system;
- Graphical user interface providing access to SAT-AIS data;

- App for mobile devices (IMS App) providing access to current maritime picture on smart phones and tablets.

SAT-AIS data is available online since July 2017. The data is archived for at least 5 years and may be provided upon request.

VIII. Conditions of Access

In accordance with the Interface and Functionalities Control Document (IFCD), SAT-AIS data is available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users. Access can be granted following three types of licences which are foreseen by the SAT-AIS service contract conditions:

- Licence to provide global feed of SAT-AIS data for EMSA users - EMSA will provide a global feed of real-time and historical SAT-AIS data, including its associated data quality indicators and where available its associated Doppler data, through the SafeSeaNet Ecosystem Graphical User Interface (SEG) including web and mobile applications, to entities such as:
 - EU / EFTA Member States;
 - EU institutions such as EMSA, EFCA, and Frontex, to support their users: governmental and international operational entities collaborating with EMSA, EU bodies and operations such as EUNAVFOR, MAOC-N or other similar agreements or arrangements. The global feed of real-time SAT-AIS data in the form of S2S will be provided to EFCA and Frontex, if required so;
 - For users of EMSA services, other than EFCA and Frontex, EMSA may, if required so, distribute SAT-AIS data in the form of S2S for requests covering small geographical areas not larger than 5 Million km² and for very specific reasons i.e. during a SAR operation; for monitoring a specified number of ships, etc.;
- Licence to provide global S2S feed of SAT-AIS data for EU Member States - Licences to provide a global feed of real-time SAT-AIS data in a form of S2S (EMSA's streaming solution) to individual EU / EFTA Member States for geographical areas larger than 5 Million km².
- Licence to provide feed of SAT-AIS data for given AOI - EMSA will provide real-time and historical SAT-AIS data, in a form of access to SEG or S2S, from a particular Area of Interest (AOI) to entities such as EU candidate countries, or for the European Neighbourhood Policy Countries, e.g. beneficiary countries under European Commission programmes such as SAFEMED, BCSEA or any other EMSA cooperation agreements.

Access to other communities may be requested, either on an ad hoc basis (to satisfy a given need during a given period), or in the form of an agreement (MoU), which allows access to SSN by specific users who are involved in pilot projects, but who are outside the SSN legal framework. In each case, access will only be granted to information relevant to their mandate. The access rights for each user profile shall be determined by a decision of the HLSG for the specific agreed purpose.

IX. Status of implementation

This dataset is already available for EU coast including Norway and Iceland and made available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users.

X. Dissemination channels

The data is currently available as a feed integrated into the SafeSeaNet Ecosystem Graphical User Interface (SEG) for the Member State and Institutional operations, including EFCA IMS. This data is also provided via system-to-system to Frontex and is available via the EUROSUR Fusion Services (EFS).

XI. Points of contact

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2.8 Dataset 2.8 VMS

I. Data group

Vessel Positions

II. Short description

The vessel monitoring system (VMS) is a satellite-based monitoring system which at regular intervals (i.e. every 2 hours) provides data to the fisheries authorities on the location, course and speed of vessels. This data allows monitoring behaviour of fishing vessels in real-time, in particular for control purposes.

III. Agency responsible for data set

EFCA

IV. Data elements

A standard North Atlantic Format (NAF) VMS message is composed of the following data elements:

- Internal Number (IR)
- Radio Call Sign (RC)
- Vessel name (NA)
- Flag State (FS)
- Time (TI) [Position Time UTC - hhmm]
- Date (DA) [Position Date - yymmdd]
- Latitude (LA) [Position Degrees and Minutes - Nddmm or Sddmm]
- Longitude (LO) [Position Degrees and Minutes Eddmm or Wddmm]
- Speed (SP) [Knots and tenths - kkt]
- Course (CO) [Degrees ddd]

V. Legal basis

Council Regulation (EC) No 1224/2009 of 20 November 2009, as amended by regulation (EU) No 1380/2013(b). In particular, but not limited to article 9 (all EU fishing vessels of 12 metres overall or more shall be equipped).

VI. Scope and source of data

At regular interval the VMS will transmit the vessel identification, date time and position accurate to 500 metres, and the instant speed/course of the vessel.

The VMS system is fully implemented and compulsory for EU vessels above 12 m LOA since 1 January 2012. Non-EU vessels of the same size are obliged to have an operational satellite tracking device installed on board whenever they are in Union waters. Without prejudice to specific provisions, EU and non-EU vessels as well as specific auxiliary vessels (i.e. BFT Tugs) can also be obliged to carry VMS in the framework of Regional Fisheries Management Organisation or national requirements.

The data is sourced from the vessel via the flag state and/or RFMO secretariat. The flag state is the owner of the data.

VII. Technical implementation

The three general technical elements of a VMS are:

- Shipboard equipment: The electronic equipment installed on board a vessel is the fundamental requirement for the vessel to participate in a VMS programme. This equipment typically consists of some combination of antenna and transceiver, external power source and cabling. Collectively, this equipment is referred to as the VMS Unit. An integrated GPS in the unit calculates the position directly and include it in the position report. The unit's course (heading) and speed may be calculated directly and transmitted along with the position report, or it may be calculated at the fishery monitoring centre software application, based on the time and distance between position reports.
- Communications systems: The communications system carries position reports and other messages from the Shipboard equipment - VMS , through space and surface lines, to the Fishery monitoring centre

- VMS . The service providers used for the space segment in most fisheries VMS programmes are Argos, and Inmarsat-C and D+.
- Fishery Monitoring Centre (FMC): After data reports have been sent from a vessel's Shipboard equipment - VMS and through the communications system, they are transmitted to the end user at the fishery monitoring centre (FMC). The transmission from the Communications systems - VMS typically is conducted over commercial data networks.

VIII. Conditions of Access

Access to VMS is limited to relevant coastal and flag state fisheries control authorities. VMS shared during JDP campaigns coordinated by EFCA are available to all participating MS fisheries control authorities.

In addition, the sharing of VMS and the integration in the IMS, provides access to selected operational stakeholders from Frontex and/or EMSA.

IX. Status of implementation

VMS is fully established and operational. Relevant dissemination channels are in place to share VMS with MS fisheries control authorities, EFCA, EMSA and Frontex.

X. Dissemination channels

The transmission of VMS messages between EFCA, Member States and RFMO can be made using 2 different technologies:

- Encrypted https transmission: peer-to-peer connection between EFCA and the distinct FMCs in NAF format.
- Via FLUX Transportation Layer. The FLUX TL is a messaging integration system in UN/CEFACT format, using a central node (DG-MARE) which ensures the dispatching of messages between the sending node and the receiving node.

XI. Points of contact

EFCA Servicedesk

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2.9 Dataset 2.9 Ship Gathered AIS

I. Data group

Vessel Positions

II. Short description

Position information transmitted by ships via on board Automatic Identification System (AIS) and gathered automatically by commercial vessels in the area fitted with AIS receiving equipment.

III. Agency responsible for data set

EMSA

IV. Data elements

- Fixed/static information: MMSI, Call sign and Ship Name, IMO number, Length and beam and Type of ship
- Dynamic information: Ship's position with accuracy indication and integrity status, Position timestamp in UTC, Type of electronic position fixing device, Course over ground (COG), Speed over ground (SOG), True heading, Navigational status and Rate of turn (ROT)
- Voyage related information: Ship's draught, Hazardous cargo (type) and Destination and ETA

V. Legal basis

SOLAS Regulation V/19.2.4; SafeSeaNet Interface and Functionalities Control Document and Regulation (EC) No 1406/2002 followed by EMSA Work Programmes.

VI. Scope and source of data

Since 2002, the SOLAS Regulation V/19.2.4 requires that all ships of 300 gross tonnage (GT) and upwards engaged on international voyages, cargo ships of 500 GT and upwards not engaged on international voyages and passenger ships irrespective of GT must have an AIS Class A onboard at all times. In 2006, Class B AIS transponders were introduced (with fewer functionalities but at a cheaper cost) and since then even smaller vessels have voluntarily started to use AIS technology.

Since May 2014, following stricter EU legislation, any fishing vessel with an overall length of more than 15 metres and flying the flag of a Member State and registered in the Community, or operating in the internal waters or territorial sea of a Member State, or landing its catch in the port of a Member State is also obliged to be equipped with AIS.

Ship Gathered AIS data is collected by receiving equipment on board commercial vessels at sea and is relayed by service providers for integration into EMSA's streaming interface, from where it is made available to the national systems of Member States and other institutional partners.

VII. Technical implementation

AIS works by automatically broadcasting tracking information at regular intervals via a Very High Frequency (VHF) transmitter built into the transponder to receiving stations. The AIS transponders work in an autonomous and continuous mode and, presently, the two VHF frequencies used are 161.975Mhz (AIS1, or channel 87B) and 162.025Mhz (AIS2, or channel 88B).

EMSA is capable of providing different alternative mechanisms to retrieve Ship-AIS information:

- System-to-system interface which allows exchange of data between EMSA and the national system;
- Graphical user interface providing access to Ship-AIS data;
- App for mobile devices (IMS App) providing access to current maritime picture on smart phones and tablets.

VIII. Conditions of Access

The exact Conditions of Access will be agreed by EMSA when the data becomes available to users.

IX. Status of implementation

This dataset is not yet available.

X. Dissemination channels

The data is not yet available.

XI. Points of contact

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3. EMSA Central Reference Databases

A set of databases containing elements (such as organisations, ships and locations) which support all EMSA applications and are integrated into EUROSUR Fusion Services.

3.1 Dataset 3.1 Central Geographical Database (CGD)

I. Data group

EMSA Central Reference Databases

II. Short description

The Central Geographical Database (CGD) is a repository of reference areas used by various IMS-based applications and operations.

III. Agency responsible for dataset

EMSA

IV. Data elements

Area attributes:

- Unique identifier - Unique identifying number of the area.
- Name - Name of the geographical area.
- Description - Description of the geographical area.
- Area Category/ Type - Category of the geographical area (e.g. IMDatE; CSN area) - see Table 1.
- Definition/ Geometry type- Definition of the area - Bounding Box (rectangle), Polygon, and Circle.
- Country - Country or countries within the area.
- Organisation (Authority) - Organisation managing the area in question (authority).
- Two additional attributes will be added to the CGD:
- Operation - Current operation in the area (e.g. EFCA Atlantic operation). When a specific attribute is set to an operation, only the users belonging to the operation will be able to access it. If the attribute is not defined all users can access the area.
- Active - Areas registered in CGD may either be active (e.g. EFCA fishing area open) or Non-Active - (e.g. EFCA fishing area is closed).

Table 1 - Overview of CGD Areas Categories

Area Category	Description
TSS	Traffic Separation Scheme
SRR_Region	Search and Rescue Region
Territorial_Waters	Exclusive Economic Zone
Contiguous Zone	Contiguous Zone of the coastal state
Internal Waters	Internal waters of the coastal state
Fisheries	Areas for fisheries purposes (includes Regional fisheries management organisations (RFMOs) areas)
Security	Geographical areas highlighted for security purposes
EO_Spill_Alerting_Area	Earth Observation Spill Alerting Area

Area Category	Description
EO_Act_Alerting_Area	Earth Observation Action Alerting Area
EO_Sensitive_Area	Earth Observation Sensitive Area
EO_Coverage_Requirements	Earth Observation Coverage Requirements
EO_Tasking_Areas	Earth Observation Tasking Area
LRIT_DDP	Area of the Long-Range Identification and Tracking System Data Distribution Plan
LRIT Sensitive Area Monitoring	Sensitive Area (Horn of Africa) monitored via LRIT System (currently for EU NAVFOR only)
Marine_Natural_Reserve	Areas of Marine Natural Reserves
Access_Rights_Area	Area with specific access rights
Service_Area	For specific EMSA services, e.g. EFCA Atlantic, EUNAVFOR/ATALANTA, SAFEMED, TRACECA
LRIT EU DC for Frontex - Med and the North Africa/ Canarias/ Iberian Peninsula Waters	LRIT EU DC data available for Frontex
Global	Global Area
Anomaly Detection Service Areas on Request	Specific areas covering areas of interest for anomaly detection service
Vessel Track Reporting	Specific areas covering areas of interest
PSSA	Particularly Sensitive Sea Area
MRS	Mandatory Reporting System
VTS	Vessel Traffic Service
Place of Refuge Alerting Area	Place of refuge alerting area
Maritime Assistance Services	Maritime assistance services area
Place of Refuge	Place of refuge
Areas for Receiving Incident Reports on Ships Posing a Potential Hazard	Incident report areas
AIS Base Station Coverage	Area describing the coverage of AIS Base Stations
Anchorage	Anchorage Area

Area Category	Description
Inshore Traffic Zone	Inshore traffic zone area
Recommended Route	Area highlighting a recommended route
Area Closed for Navigation	Area which has been closed for navigation
Countries	Countries
Port Areas	Port areas
Sea /Ocean Basins	Geographical area containing sea/ocean basins
General Purpose Area	Geographical area for general purposes
EU Boundary Area	Geographical area corresponding to EU boundaries
Regional Agreements	Geographical area associated to a specific Regional Agreement
Customised Areas/Lines (Accessibility Level Private and Public)	Custom areas created by users
International Recommended Transit Corridor (IRTC)	Navy-patrolled route through the Gulf of Aden measuring 490 NM long and 20 NM wide. All ships passing through the IRTC are recommended to register with the Maritime Security Centre - Horn of Africa (MSCHOA)
High-Risk Area (HRA)	All ships passing through the High-Risk Area (an area bounded by Suez and the Strait of Hormuz to the North, 10°S and 78°E) are recommended to register with MSCHOA
UK Maritime Trade Operations (UKMTO) Voluntary Reporting Area	On entering the UKMTO Voluntary Reporting Area - area bounded by Suez to the North, 10°S and 78°E - ships are advised to send a UKMTO "Vessel Position Reporting Form - Initial Report".
Patrol Areas	Geographical Areas for Patrolling Purposes

V. Legal basis

VTMIS Directive 2002/59/EC, as amended by the Directive 2014/100/EU (Annex III - 2.3); SSN Interface and Functionalities Control Document - sections: 2.4 Additional system functionalities; 2.4.2 Integrated Maritime Services (IMS) Functionalities.

VI. Scope and source of data

The CGD contains:

- The areas of responsibility for the organisations/authorities registered in the Central Organisation Database (COD).
- Areas for Earth Observation - CleanSeaNet service-related alerting.
- Fishing and other specific areas provided by European Fisheries Control Agency (EFCA).

- Specific areas requested by IMS Member States, for instance, Ballast water exchange areas (OSPAR¹⁶), own operational areas, EEZ, SRR, etc.

The CGD is partially fed by the EFCA Maritime Boundaries and Fishing Area Repository. The data scope as well as the access rights are defined by the data owners. CGD areas are provided to EMSA by the end-users and uploaded by the EMSA CGD admin. Changes are planned in CGD to allow end-users to access the information available in the CGD with a read-only type of access.

VII. Technical implementation

Central Geographical Database (CGD) makes part of the IMDatE (IMS) technical platform.

The CGD implements the OGC Web Feature Service (WFS) that can be used to retrieve and update geospatial data, e.g. polygons.

VIII. Conditions of Access

In accordance with the Interface and Functionalities Control Document (IFCD), 2.4.2, access rights and functional roles within the boundaries are defined by the data owner.

The IMS specific functionalities are described in the form of [service] agreements, Service Level Agreements (SLA) or the Operational Level Agreements (OLA) which, inter alia, should cover: user requirements, the availability, continuity, reliability, access rights, testing, change management and monitoring requirements.

IX. Status of implementation

This dataset is already available to EU Member States' authorities executing functions in the maritime domain, having access to IMS.

X. Dissemination channels

The data is made available in the SafeSeaNet Ecosystem Graphical User Interface (SEG) for the Member State and Institutional operations, CleanSeaNet service and EFCA IMS, via WFS.

XI. Points of contact

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¹⁶ OSPAR is the mechanism by which 15 Governments & the EU cooperate to protect the marine environment of the North-East Atlantic. It combines and up-dates the 1972 Oslo Convention on dumping waste at sea and the 1974 Paris Convention on land-based sources of marine pollution. More information is available here: <https://www.ospar.org/>

3.2 Dataset 3.2 Central Location Database (CLD)

I. Data group

EMSA Central Reference Databases

II. Short description

The Central Location Database (CLD) is used as a reference for locations by all maritime applications of the SSN ecosystem as well as national systems of the Member States and EUROSUR Fusion Services.

III. Agency responsible for dataset

EMSA

IV. Data elements

Location identification:

- Location code - unique identifier of the location. For UNECE locations: first two letters identifying the country, according to the ISO 3166 two-letter Code and three characters identifying the location within the country.
- Location Name with diacritics - Name of the location with diacritics. Equals to the Name with diacritics provided by UNECE for UNECE locations.
- Location Name without diacritics - Name of the location without diacritics. Equals to the Name without diacritics provided by UNECE for UNECE locations.
- Comments - Any additional information regarding the location.
- Country - Country of the location.
- Type - Type of the location (e.g. SSN specific, UNECE).
- Function - Function number as defined by UNECE. Mandatory for UNECE locations.
- Status - Indicates whether the location is active in the CLD.

Location Position:

- Latitude
- Longitude

Location attributes:

- Other Location Name - Other names for this location
- Subsidiary Location - Subsidiary location within the port or port approaches (e.g. a terminal in the port, a berth, an anchorage site, a fairway section etc.) as defined in UNECE recommendation 16
- In SECA - Whether the location is in a Sulphur Emission Control Area (SECA)
- EU Border Inspection Post - Whether the location is an EU Border Inspection Post (BIP).
- Port where transshipment or landing operations of fishery products are authorised - Whether the location is in the list of designated EU ports where transshipment and/or landing operations of fishery products are authorised according to EC Regulation 1005/2008

Port facilities:

- Port Facility Name - Facility Name in the Global Integrated Shipping Information System (GISIS) Maritime Security
- Port facility Description - Facility description in GISIS Maritime Security
- Port Facility LOCODE - First 5 characters of Facility Number from GISIS Maritime Security
- Port facility GISIS code - Last 4 characters of Facility Number from GISIS Maritime Security
- Port Facility's Coordinates (Latitude and Longitude)

Location images:

- Image
- URL - link to port related information

EMSA application:

- Acronym - Acronym of the maritime application
- Name - Name of the maritime application

- Active - Whether the location is currently active in the Maritime Application

V. Legal basis

SSN Interface and Functionalities Control Document - section 5.2.3 Reference Database Management

VI. Scope and source of data:

The CLD includes all LOCODEs¹⁷ listed in UN/LOCODE list, SSN specific locations as well as port facilities information stemming from the IMO Maritime Security module of the Global Integrated Shipping Information System (GISIS).

The synchronisation of the CLD with the UN/LOCODE list and the IMO GISIS Maritime Security module is currently done manually by the EMSA CLD administrator. The UNECE Secretariat publishes a new UN/LOCODE version twice a year (July and December). The automatic link between the CLD and the IMO GISIS is planned to be established in 2020.

VII. Technical implementation

The CLD information is made available to external systems, which may use it for cross-checking purposes with similar data stored in their databases (e.g. SSN, NSW). To connect and benefit from the Central Location Database, EMSA designed a set of web services to allow sharing information:

- Access through the EMSA web interface: the web interface is accessible through EMSA portal.
- Request/response mechanism: to request the content of location records in the CLD based on different criteria (e.g. country of the Location and name of the location).
- Location data announcement ("push"): this service is used by the CLD to announce to an external system previously subscribed to the service the creation of a new Location record or the change on data stored in the CLD for a Location.

VIII. Conditions of Access

In accordance with the Interface and Functionalities Control Document (IFCD), location data is available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users.

IX. Status of implementation

This dataset is already available to EU Member States' authorities executing functions in the maritime domain, Ports, EMSA, EC and other EU bodies users.

X. Dissemination channels

The data is currently available in the CLD user web interface and in the SafeSeaNet Ecosystem Graphical User Interface (SEG) for the Member State and Institutional operations, including EFCA IMS. This data will be also provided via system-to-system to Frontex in 2020.

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¹⁷ The United Nations Code for Trade and Transport Locations (UN/LOCODE), is a geographic coding scheme developed and maintained by United Nations Economic Commission for Europe (UNECE). UN/LOCODE assigns codes to locations used in trade and transport with functions such as seaports, rail and road terminals, airports, postal exchange offices and border crossing points. The most updated version can be found at http://www.unece.org/cefact/codesfortrade/codes_index.html

3.3 Dataset 3.3 Central Organisation Database (COD)

I. Data group

EMSA Central Reference Databases

II. Short description

The Central Organisation Database (COD) keeps information related to public organisations, such as local and national authorities, and private companies and contractors, involved with the SafeSeaNet Ecosystem.

III. Agency responsible for dataset

EMSA

IV. Data elements

- Organisation ID - unique identifier code for the organisation.
- Organisation Name - Name of the relevant organisation in English without diacritics.
- Organisation Type - Type of the organisation in question: Public (organisation of public interest listed in the COD such as Maritime Authorities and organisations acting as public-private partnerships) or Private (private company listed in COD such as EMSA application contractors, ship management companies or ship registered owner companies).
- Local Language Name - Original name of the relevant organisation in its local language.
- Unit or Department Name - Relevant department within the organisation.
- SAR LRIT ID - The requestor ID to be used by the LRIT EU DC to perform SAR requests. Applicable to MRCCs.
- Country or Institution - Country or Institution which the organisation belongs to (as it is registered into the Central Country Database - CCD maintained by EMSA).
- Status - Indicates whether the organisation is active or inactive. An inactive organisation cannot be edited, published, provided to external systems.
- Contact Information - Contact Details of organisation (address, e-Mail, web site, phone no., fax no., telex).
- Inmarsat call details - Inmarsat number including the Inmarsat country code.
- VHF channels - Very High Frequency (VHF) channels (representing frequencies) used in the Global Maritime Distress and Safety System communications.
- MF channels - Medium Frequency (MF) channel or frequency used in the GMDSS communications.
- Organisation Duty - A task(s) that the organisation is responsible for.
- Area of responsibility - Area where the organisation's duty applies. This may be either a list of geographical areas or a list of individual locations.

V. Legal basis

Article 22 of the Directive 2002/59/EC as amended

SSN Interface and Functionalities Control Document - section 5.2.3 Reference Database Management

VI. Scope and source of data

The initial purpose of the Central Organisation Database (COD) was to serve as the Shore-based Traffic Monitoring Infrastructure Database (STMID) which is meant to simplify and facilitate the sharing of information regarding the authorities and coastal stations designated by Member States in accordance with Article 22 of Directive 2002/59/EC. This information was collected via questionnaires sent to Member States in 2006 and updated in 2013. For the STMID, for each designated organisation, COD identifies one or several “duties” that the organisation performs (e.g. assessing the situation regarding the accommodation of ships in need of assistance, receiving notifications from ships prior entry into ports, etc.).

Currently, the COD serves also as a reference repository of organisations for configuring user accounts of EMSA applications (each user belongs to an organisation from COD).

The database is designed in a way that can be easily extended to other communities such as authorities with CG functions or others.

VII. Technical implementation

The CLD information is made available to external systems, which may use it for cross-checking purposes with similar data stored in their databases (e.g. SSN, NSW). To connect and benefit from the Central Organisation Database, EMSA designed a set of web services to allow sharing information:

- Access through the EMSA web interface: the web interface is accessible through EMSA portal;
- Request/response for organisations data: to request the content of organisation records based on different criteria (e.g. country of the organisation, name of the organization, principal location, etc).
- Announcement: This service is used by COD to inform External Systems which will have subscribed to the service of creations of new organisations and changes of organisations' details.

VIII. Conditions of Access

In accordance with the Interface and Functionalities Control Document (IFCD), organisation data currently stored in COD is available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users.

IX. Status of implementation

This dataset is already available to EU Member States' authorities executing functions in the maritime domain, Ports, EMSA, EC and other EU bodies users.

X. Dissemination channels

The COD Web User Interface is accessible via the EMSA portal (<https://portal.emsa.europa.eu>) to authorised users of the Member States who are allowed to register and update the information on the organisations which have been designated by Member States. In addition, other users may be granted access to consult the information available in the COD (read-only access).

The details of the STMID authorities registered in the COD can be also displayed through the SSN Ecosystem GUI (SEG) by activating the dedicated layer called "Organisations." In this way, a SEG user can display organisations based on their responsibilities (e.g. NCA 24/7, Place of Refuge, Hazmat notification, etc.), or search for them using their names. In addition, it is possible to display areas that are associated with the different responsibilities/duties of an organisation (e.g. SAR area, VTS area, etc.).

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3.4 Dataset 3.4 Central Ship Database (CSD)

I. Data group

EMSA Central Reference Databases

II. Short description

The CSD includes all the static data of ships such as identification information, particulars and information on ship statutory certificates. The purpose of the CSD is to be used by maritime authorities for data quality purposes as a reference data source.

III. Agency responsible for dataset

EMSA

IV. Data elements

Ship identification:

- CSDID: Number created by the CSD to uniquely identify a vessel in the system
- IMO number: The unique ship identification number shown on its IMO ship's certificate in accordance with IMO Res A.600 (15).
- MMSI: Identifier used by maritime digital selective calling (DSC), automatic identification systems (AIS) and certain other equipment to uniquely identify a ship or a coast radio station.
- Call sign: A unique ship's identification used primarily for radio communications shown on the ship's IMO certificates
- Ship name: The ship's name shown on the IMO ship's certificate.
- IR number: EU fishing vessel Registration number (CFR field).
- External marking: Number and letters displayed on the exterior of vessels (i.e. fishing vessels, pleasure boats, ships without mechanical means of propulsion, wooden boat, etc.) EU vessels Pursuant to Regulation (EU) No 404/2011)
- Ship flag: The ISO code for the country subdivision in which the ship is registered
- Home port: A vessel's home port is the port at which it is based or usually operating from (which may not be the same as its port of registry).
- Port of registration: Port where the ship was first registered
- Ship Inmarsat Call number: 9-digit number indicating the location of the ship by satellite services of Inmarsat (the international Call ID for Inmarsat network must not be quoted)
- UVI: "Unique Vessel Identifier (IMO for EU fishing fleet pursuant to Regulation (EU) No 404/2011- possible other for non-EU fishing fleet)"
- CFR: Community Fleet Register Number (only EU fishing vessels)
- National registration number: Registration Number given by National Authority for fishing vessels.
- Vessel satphone number: The number of the vessel satellite phone

Ship type:

- Ship Type LRIT: The ship type according to the LRIT system
- ShipType AIS: The type of ship according to the AIS classification.
- ShipType PSC: The type of ship according to the PSC classification.
- ShipType LL: The type of ship according to Lloyd's List classification.
- ShipType IHS: This is the classification of vessels according to IHS Fairplay.
- ShipType UN: The type of ship according to UNECE Recommendation 28
- Ship type FAO: Fishery Vessel Type according to FAO/EU. In accordance with the International Standard Statistical Classification of Fishery Vessels (ISSCFV)

Construction details:

- Year of construction: The year when the vessel was built
- Keel laying date: Date when the ship progressive construction began.
- Contract date: Date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder

- Date of first entry into service: Date on which ship first entry into service

Status:

- Service indicator
- Ship status from PSC: The status of the vessel according to Port State Control authorities: active / dead

Statutory certificate:

- Certificate type: to identify the certificate
- Date of issue: Date indicating when the certificate was issued
- Issuer type: Type of organization issuing the certificate (Administration or Recognized Security Organization)
- Date of expiry: Date indicating when the certificate will be expired

Dimensions:

- Gross Tonnage: The measurement of ship's total capacity expressed in volumetric tons of 100 cubic feet.
- Net Tonnage: Net tonnage is a representation of the internal volume of a ship's cargo holds, in tonnes, defined during design.
- Reduced Gross Tonnage: The value calculated as per MSC 82/24/Add.2. To be quoted only for open top container ships.
- Moulded breadth: The transverse distance (in metres) extending from the most outboard point on one side to the most outboard point on the other side of a ship's hull including any projections on the ship's side; this dimension determines the maximum space occupied by the ship when used with length overall. In other words the highest value of the ship's beam.
- Beam: The nominal width (in metres) of the ship defined by design.
- Number of holds: Number of cargo holds of the ship.
- Length Overall: The distance (LOA - length overall in meters) between the forward most and aftermost parts of the ship.
- Length between perpendiculars: The nominal (defined during ship design) length of a vessel along the waterline from the forward surface of the stem, or main bow perpendicular member, to the after surface of the sternpost, or main stern perpendicular member. Expressed in meters.
- Keel to mast height: Distance (in metres) between the bottom of the keel and the top of the ship's mast.
- Deadweight: The ship's carrying capacity expressed in tonnes.
- Max Draught: the depth of a loaded vessel in the water in metres, taken from the level of the waterline to the lowest point of the hull.
- Moulded depth: The moulded depth is the vertical distance measured in metres from the top of the keel to the top of the freeboard deck beam at side.
- Max number of passengers: The maximum number of passengers that a ship may carry by design according to the applicable rules.
- Number of RoRo compartments: Number of RORO compartments of a ship.
- Max number of TEU: Twenty-foot equivalent unit, a measure used for capacity in container transportation. One TEU represents the cargo capacity of a standard intermodal container, 20 feet (6.1 m) long and 8 feet (2.44 m) wide.
- Number of cargo tanks: Number of cargo tanks of the ship.

Dimensions for fishing vessels:

- Gross Tonnage Class: The classification of Gross Tonnage according to EU regulation
- Gross Tonnage Other: This is the Gross Tonnage as provided by the Fishing vessel register.
- Length Overall Class: Classification depending on the LOA, as established by EU fisheries regulation.

Company information:

- ISM company name: The name of the company in charge of assuring the ISM code.
- ISM company IMO number: Identification number of the ISM company responsible for the ship which conforms to the IMO Unique Company and Registered Owner Identification Number Scheme adopted by the Organization.
- Registered owner name: The name of the registered owner company

- Registered owner IMO number: The IMO number of the registered owner company responsible for the ship

Technical details:

- Hull shape: The kind of hull type according to displacement, semi-displacement and light craft.
- Hull type: The hull is the watertight body of a ship or boat. From an operational / safety perspective is important to define if the vessel is of single hull type or double hull.
- Max service speed: Maximum speed at 75% of the MCR: the average speed maintained by a ship under normal load and weather conditions.
- Manoeuvre speed: The maximum speed in knots (defined during ship design) that a ship can maintain during a manoeuvre.
- Max speed: The maximum speed in knots (defined during ship design) of the vessel.
- Type of propulsion system: The kind of propulsion according to conventional, non-conventional (diesel-electric, combined diesel, water jet, hybrid...).
- Power kW (MCR): Maximum output that an electric or mechanical power generating station is capable of producing continuously under normal conditions over a year
- Main Engine RPM: Maximum Revolutions per minute of the main engine of the vessel.
- Fuel type: The type of fuel that the main engine of the vessel uses
- Ice class: ICE class notation applies to vessels intended for service in icy waters with everything from light ice conditions to ice breaking and ramming
- Number of bow thrusters: Number of bow thrusters of the ship.
- Number of stern thrusters: Number of stern thrusters of the ship.
- Construction material: The main material that the hull is made of
- Number of all engines: The total number of engines on board in a vessel
- Number of main engines: The total number of main engines on board in a vessel
- Auxiliary Engine Power: The max power of the auxiliary engine in kW.
- Main engine designer: The designer of the main engine
- Shaft generator included: Electricity from the main engine. No emission at sea from a separate diesel
- Engine manufacturer: The brand that manufactured the main engine
- Engine model: The brand and model of the main engine

Technical details for fishing vessels:

- Power Class: Main Engine Powerclass as per EU Reg (EU)
- Main fishing gear: The tool with which aquatic resources are captured by fishing vessels
- Auxiliary Fishing Gear 1: 1st Auxiliary Fishing Gear Code as per EU/FAO
- Auxiliary Fishing Gear 2: 2nd Auxiliary Fishing Gear Code as per EU/FAO
- Auxiliary Fishing Gear 3: 3rd Auxiliary Fishing Gear Code as per EU/FAO
- SEG (EU): RES1 Fleet Segment Code as per EU Reg (for EU vessels) as per EU Master Data
- CR Fishing Category Codes (EU): 3rd country Fisheries Agreement Code (for relevant EU vessels) as per EU Master Data
- Number of fish holds: Number of holds dedicated to fish storage
- Fish hold volume: Capacity in cubic meters of fish storage
- Carrying capacity: Capacity in tons of fish storage
- Freezing capacity: Capacity in tons of fish freezing

Port State Control information:

- Banned from EU ports: Indicates if the ship is banned from EU ports

Fisheries control information:

- VMS on board: Does the ship has a Vessel Monitoring System (VMS) device on board?
- AIS on board: Does the ship has an Automatic Identification System (AIS) device on board?
- ERS on board: Does the ship has an Electronic Reporting System (ERS) device on board?
- Has national fishing license: Does the ship has a national fishing license?

Reference List for fishing vessels:

- RFMO organisation: RFMOs Organizations and/or DG-SANCO

- Serial and approval numbers: serial/approval numbers
- Identifier list: RFMO and DG-SANCO identifier list
- Permit type: ICCAT permit type and NEAFC authorisation type
- Permit start date: Date when the permit/authorisation type is starting
- Permit end date: Date when the permit/authorisation type is ending

V. Legal basis

SSN Interface and Functionalities Control Document - section 5.2.3 Reference Database Management

VI. Scope and source of data

The CSD handles data regarding all vessel types including merchant ships, fishing vessels and leisure crafts. To build a complete and up-to-date database, the information should stem from several sources.

Different parties such as Coastal Stations, Port State Control Officers, Flag registry managers, LRIT NCAs and EU Recognised Organisations can contribute and in return benefit from the available information. The information from these sources is received by the CSD through EMSA maritime applications (e.g. SSN, THETIS, STAR-Tracking, EU LRIT Data Centre), commercial data service providers (MARINFO), EU systems (e.g. EFCA Vessel Record), MS systems (e.g. Flag registers, Leisure crafts databases) and EU Recognised Organisations (eCertificate data).

VII. Technical implementation

The current version of the CSD handles a part of the features presented above. A major upgrade of the system is currently under development and will contain all information and be interfaced with all source introduced above. The CSD will make available the ship data to all maritime applications of EMSA (e.g. SSN, THETIS, STAR-Tracking, SEG, Frontex application) and MS operational systems such as National SSN Systems.

The CSD will keep the history of changes to vessel data. It will be possible to retrieve not only current vessel information but information valid at given time.

EMSA designed a set of web services to allow sharing the CSD information:

- Access through the EMSA web interface: the web interface is accessible through EMSA portal;
- Request/response mechanism: to request the content of location records in the CSD based on different criteria (e.g. ship identification data).
- Location data announcement ("push"): this service is used by the CSD to push ship information updates to an external system which previously subscribed to the service.

VIII. Conditions of Access

In accordance with the Interface and Functionalities Control Document (IFCD), ship data is available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users.

IX. Status of implementation

The CSD is already available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users.

The current version of the CSD handles a part of the features presented above. A major upgrade of the system is currently under development and will contain all information and be interfaced with all source introduced above. It is scheduled to be deployed by end 2020.

X. Dissemination channels

The data is currently available in the CSD user web interface and in the SafeSeaNet Ecosystem Graphical User Interface (SEG) for the Member State and Institutional operations, including EFCA IMS. This data is also provided via system-to-system to some MS.

The new version of the CSD, which is under development, will make available the ship data through system-to-system interface to all maritime applications of EMSA (e.g. SSN, THETIS, STAR-Tracking, SEG, Frontex application) and MS operational systems such as National SSN Systems

XI. Points of contact

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3.5 Dataset 3.5 Central Hazmat Database (CHD)

I. Data group

EMSA Central Reference Databases

II. Short description

The Central Hazmat Database (CHD) includes a list of dangerous and polluting goods taking into consideration the relevant data elements from the IMO Conventions and Codes.

III. Agency responsible for dataset

EMSA

IV. Data elements

- HazmatID - The ID of the Hazmat item as maintained in the CHD.
- DG classification - Indication of the classification used (IMDG, IGC, IBC, IMSBC, MARPOL Annex I)
- Textual reference - This is the proper shipping name, completed with the technical name where appropriate, for goods under IMDG Code, or the product name for goods under IBC Code and IGC Code, or the bulk cargo shipping name for goods under IMSBC Code, or the name of oil for goods under Annex I to the MARPOL Convention.
- IMO hazard class (only code) - IMO Hazard class as defined in IMDG, IBC and IMSBC codes. It specifies the hazard code for the actual substance. Subsidiary hazard codes may be added where applicable in the "Subsidiary Risks" data items.
- UN number - United Nations Dangerous Goods Identifier (UNDG), unique serial number assigned within the UN to substances and articles contained in a list of the dangerous goods most commonly carried.
- Packing group (only code) - Where applicable: Packing danger group code as appropriate and as defined in IMDG. The packing group for a chemical indicates the degree of hazard associated with its transportation. The highest group is Group I (great danger); Group II is next (medium danger), while Group III chemicals present the lowest hazard (minor danger). Packing groups are often shown on MSDS data sheets for chemicals under the heading "Transport Information".
- Subsidiary risks (only code) - Any risks in addition to the class to which dangerous goods are assigned; and which is determined by a requirement to have a subsidiary risk.
- Marine Pollutant/Pollution Category - MARPOL Code This code applies to pollution hazards as defined in MARPOL Annex II in case of bulk (e.g. pollution category X, Y, Z, OS) and Annex III in case of packaged goods (e.g. Marine Pollutant P)
- EmS (only code) - Classification of the Procedures for Emergency Preparedness and Response (EmS) for ships carrying dangerous goods according to the IMO EmS Guide
- Mode of Carriage - This is a description of how the product is transported on the ship: in packaged form (e.g. in boxes, containers) or in bulk (e.g. in tankers, bulk carriers)
- Type of Product carried in bulk - Description of the type of product carried in bulk: solid, liquid or gas
- Type of Liquid - Description of the type of liquid: oil or chemical/noxious substance
- Additional Information (and Flashpoint) - Any additional information regarding dangerous and polluting goods on-board (Properties and Observations in the IMDG list). The additional information field includes Flashpoint information. Flashpoint is the temperature in degrees Celsius at which a liquid will give off enough flammable vapour to be ignited.
- Mandatory or Voluntary version of the code - The IMSBC Code and the IMDG Code are revised every two years and have a transitional period of one year. Before the new version of a Code or Convention becomes mandatory, there is a transitional period of time when the new version of the code may be applied voluntarily.

V. Legal basis

SSN Interface and Functionalities Control Document - section 5.2.3 Reference Database Management

VI. Scope and source of data

The CHD contains data elements extracted from the following IMO Codes and Conventions (i) International Maritime Dangerous Goods Code (IMDG), (ii) International Code for the Construction and Equipment of Ships Carrying Chemicals in Bulk (IBC), (iii) the International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC); (iv) the International Maritime Solid Bulk Cargoes Code (IMSBC) and (v) Marpol Annex I

The database is populated using IMO Codes and Conventions made available in house from RuleCheck.

The total number of HAZMAT products in the database is around 5,000. The number of products per code varies from around 3500 in the IMDG code to 50 in the list of oils in Marpol Annex I. The database also includes a link to the relevant entries in the MAR-CIS database.

VII. Technical implementation

The CHD is updated as soon as there are changes to the relevant IMO Codes and Conventions and legal acts of the Union related to the carriage and reporting of HAZMAT information in SSN. Updating the database may be carried out in two ways: a) Update and edit individual data elements, and b) Update all the entries with respect to a particular Code.

The CHD web user interface is available to authorised and guest users through EMSA's Maritime Application Portal.

Regarding the system to system interface the CHD provides interfaces for the following functionality:

- Hazmat items request mechanism
- Hazmat items updates subscription mechanism
- Hazmat updates via push mechanism

Two sets of services, each one based on a different architecture are implemented by CHD. The first set utilizes XML messages exchange over HTTP and the second is SOAP based. The two sets of services are completely independent, with the exception that only one subscription (i.e. either SOAP or REST) is allowed per external system. Consequently, for the services that will be hosted in the external system's end, the implementation of one architecture (i.e. XML over HTTP or SOAP) is enough, in order to achieve full functionality.

VIII. Conditions of Access

The CHD is available to EU Member States' SSN National Competent Authorities, SSN Local Competent Authorities and other national authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users. Public users may access a limited version of the CHD using a guest password.

IX. Status of implementation

This CHD is already available to EU Member States' authorities executing functions in the maritime domain, Ports, EMSA, EC.

X. Dissemination channels

The CHD web user interface is available to authorised users from EMSA's Maritime Applications Portal. (<https://portal.emsa.europa.eu>). The data may also be provided via a system-to-system interface. Public users may access the CHD using a guest password.

SEG users may identify vessels which have reported Hazmat on board in SSN and Hazmat details view provides a link to the CHD web application.

XI. Points of contact

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3.6 Dataset 3.6 MAR-CIS

I. Data group

EMSA Central Reference Databases

II. Short description

The Marine Chemical Information Sheets (MAR-CIS) are datasheets of chemical substances developed by EMSA that contain relevant information for responding to hazardous and noxious substances (HNS) marine spills.

III. Agency responsible for dataset

EMSA

IV. Data elements

MAR-CIS datasheets have around 170 different elements that are organised in categories and sub-categories, see below:

- Identification
 - Warning
 - Key properties
 - Identification
- Substance properties
 - Substance properties
 - Fire codes
- Shipping information
 - Maritime transport codes
 - IMDG code (International Maritime Dangerous Goods Code)
 - IBC code (International Code for the construction and equipment of ships carrying dangerous chemicals in bulk)
 - IMSBC code (International Maritime Solid Bulk Cargos Code)
 - GESAMP profile
- Hazards and risks
 - CLP/GHS classification and hazard communication
 - Health hazards
 - Substance intrinsic hazards
 - Environmental hazards
- Emergency measures
 - Emergency health measures
 - Emergency response measures on board of vessels
 - Environmental protection measures
- Case histories
- Physical and chemical properties
- Other names

MAR-CIS database benefits from the IMO codes and Conventions updates done through the Central Hazmat Database (CHD).

V. Legal basis

The MAR-CIS Datasheets have been developed in accordance with Regulation No 724/2004¹⁸ setting a legal obligation to EMSA in the field of response to ship sourced pollution within EU waters.

¹⁸ Regulation (EC) No 724/2004 of the European Parliament and of the Council of 31 March 2004 amending Regulation (EC) No 1406/2002 establishing a European Maritime Safety Agency can be accessed here <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32004R0724>

VI. Scope and source of data

The MAR-CIS Marine Chemical Information Sheets are datasheets of chemical substances developed by EMSA that gather relevant information from different sources for responding to marine spills of hazardous and noxious substances (HNS). These datasheets provide concise information on the substances' physical and chemical properties, handling procedures and emergency spill response procedures, as well as maritime transport requirements for safe transport at sea. Presently the database contains datasheets for 217 different substances.

VII. Technical implementation

The MAR-CIS information is made available through the EMSA web interface (accessible via EMSA portal) and through an application for mobile devices that allow users to search, to print and to share the datasheet as a pdf file.

VIII. Conditions of Access

Public administrations (e.g. marine pollution response authorities, harbour authorities, coast guard) from the 28 EU Member States and EFTA coastal states can access the MAR-CIS information.

IX. Status of implementation

MAR-CIS data is already available to EU Member States' authorities. The data is updated and revised every year.

X. Dissemination channels

MAR-CIS information is available online through EMSA's Maritime Applications Portal. (<https://portal.emsa.europa.eu>) and through a downloadable application for mobile devices (available at Google Play Store and App Store) that enable the offline use of MAR-CIS information.

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4. Fishery Information

Data from EFCA and external sources specifically catering for the needs of the Fisheries Control Authorities.

4.1 Dataset 4.1 EU Fleet Register

I. Data group

Fishery Information

II. Short description

The Fleet Register is a database where all the fishing vessels flying the flag of a Member State have to be registered in accordance with Community legislation.

The Union Fishing Fleet Register, commonly named "Fleet Register", is an effective and comprehensive tool for implementing the rules of the Common Fisheries Policy (CFP) and is used by Commission services as well as various governmental and non-governmental bodies all over the world.

The EU Fleet Register is a database where all the fishing vessels flying the flag of a Member State have to be registered in accordance with European Union legislation. Any changes in the status of a fishing vessel, for example it has been scrapped, need to be registered by Member States in the fleet register.

III. Agency responsible for data set

EFCA

IV. Data elements

The data contained in the Fleet Register can be classified in two different categories:

General Data

- Registration information: event type and dates (modification, entry, exit, destruction)
- Vessel identification: vessel name, registration port, external marking, unique vessel Identifier number (IMO number), international radio call sign, MMSI.
- Technical Information: length, tonnage, engine, construction, equipment on board.
- Fishing Gears: main and auxiliary gears
- Management information: Fishing license, fleet segment, entry into service, owner, operator

Additional Vessel Data

- Vessel identifiers used by third parties (i.e. ICCAT number etc...)
- Additional Tech. information: carrying tonnage, dimensions, speed
- Main & auxiliary engine info.: mark, model, propeller type
- Picture
- Vessel equipment details: communication and VMS, fish processing and fish holds, fuel tank, auxiliary boats/skiffs
- Other Admin. Info and place of construction
- Storage information: fish hold and freezing capacity
- Crew information: size
- Vessel direct contact details
- Additional contact details: Master/Agent, construction company/registration authority,

The Fleet Register provides information on all vessels along with their description of any changes that have occurred in their lifetimes since the creation of the Fleet Register in 1989.

V. Legal basis

Commission Implementing Regulation (EU) 2017/218 of 6 February 2017 on the Union fishing fleet register; Member States shall record the information on ownership, on vessel and gear characteristics and on the activity of Union fishing vessels flying their flag and submit to the Commission such information in accordance with Article 24(1) of Regulation (EU) No 1380/2013. The Commission shall maintain a Union fishing fleet register containing the information received from the Member States.

Article 24(2) of Regulation (EU) No 1380/2013 provides that Member States send to the Commission the information on ownership and on vessel and gear characteristics of Union fishing vessels flying their flag, those data should also be included in this Regulation.

Council Regulation (EEC) No 2930/86 of 22 September 1986 defines the characteristics for fishing vessels (OJ L 274, 25.9.1986, p. 1).

Commission Implementing Regulation (EU) No 404/2011 of 8 April 2011 lays down detailed rules for the implementation of Council Regulation (EC) No 1224/2009 establishing a Community control system for ensuring compliance with the rules of the Common Fisheries Policy (OJ L 112, 30.4.2011, p. 1).

VI. Scope and source of data

The Union Fleet Register contains the data elements for the Union fishing fleet meaning all fishing vessels flying a Member State flag. 'Fishing vessel' means any vessel equipped for commercial exploitation of marine biological resources or a blue fin tuna trap. Currently there are 81171 vessel entries (Mar 2020).

Member States collect, validate and record the data for their own vessels in their national fishing fleet register. The Member States submit to the Commission any event concerning fishing vessels introduced in the national fishing fleet register no later than at the end of the working day when the event has been fully registered.

The main objective of the Fleet Register is to enable any Union fishing vessel with key characteristics to be identified, with the aim of:

- Monitoring the implementation of capacity management measures.
- Being a source of information for the officials of the Commission and Member States in charge of control and inspection.
- Serving as an accurate source of statistical data on the European fishing fleet.
- Serving as a reference database for vessels characteristics for other applications that manage information on fishing vessels.

VII. Technical implementation

Data is being transmitted between the Commission and the Member States based on the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) standards available on the Master Data Register page of the European Commission Fisheries website.

All transmissions are fully automated and immediate, using the transportation layer.

VIII. Conditions of Access

There are two levels of access to the Union Fishing Fleet Register:

- public access (only vessel information)
- fisheries control authorities access (more extensive information including ownership information)

IX. Status of implementation

The new Commission Implementing regulation (EU) 2017/218 of 6 February 2017 on the Union fishing fleet entered into force on 1 February 2018, some application developments are still ongoing.

X. Dissemination channels

- Public access to the new Union fishing fleet data (only vessel information) is available through the following link: https://webgate.ec.europa.eu/fleet-europa/search_en
- Access for fisheries control authorities is available via a specific web-gate (ECAS) requiring access credentials for entering the Union Fishing Fleet Register application.



XI. Points of contact

EFCA Servicedesk

E-mail:

4.2 Dataset 4.2 Maritime boundaries and fishing areas repository

I. Data group

Fishery information

II. Short description

EFCA hosts a specific repository for maritime boundaries and fisheries areas for use in fisheries control applications (EFCA IMS, V-track). The repository serves as a single source of validated and up-to-date shape files and related metadata.

III. Agency responsible for data set

EFCA

IV. Data elements

- Updated and validated shape (shp) files for:
 - Territorial waters and EEZ's
 - SAR, FIR and ports
 - FAO & ICES related fishing areas (major fishing areas, sub areas, divisions/subdivisions statistical rectangles, Helcom, Ecoregions etc.)
 - EU related fishing areas (JDP areas, protection and restricted areas)
 - RFMO related areas (Convention areas, regulatory areas, VME closures, bottom fishing areas, FRA's, areas of competence, position of farms and traps)
- Metadata including legal reference documentation

V. Legal basis

Art. 3 of Commission Regulation (EU) 2019/473 on the European Fisheries Control Agency (14 April 2019). Specifying the Mission of the Agency in particular, (a) to coordinate control and inspection by Member States related to the control and inspection obligations of the Union; (b) to coordinate the deployment of the national means of control and inspection pooled by the Member States and (i) to assist in the uniform implementation of the control system of the common fisheries policy.

VI. Scope and source of data

Worldwide with a focus on fisheries related priority areas. Data is being collected from known sources:

- External sources such as VLIZ (Marineregions.org), FAO, RFMO websites
- European Commission repository
- EFCA own production

Maritime boundaries, fisheries control related areas and marine protected areas are produced and/or made available on best effort bases. They are to be considered as indicative information and should be used and/or interpreted prudently.

VII. Technical implementation

Currently an inventory is being composed which compiles permanent, seasonal and real time fisheries related areas, as well as relevant maritime boundaries.

This will lead to a repository of up to data information which will feed all legacy systems such as V-track and EFCA IMS. (Q1 2021)

VIII. Conditions of Access

Currently no online access available.

Data availability for all fisheries control and coastguard authorities.

IX. Status of implementation

Currently the repository is being upgraded in view of the development of a new IMS service for EFCA.

X. Dissemination channels

The repository will serve as a validated and up-to-date reference data source to be integrated in the EFCA IMS application.

Individual maritime boundary or fishery area datasets (shp files) can be made available on request to interested end-users or integrated in other applications if needed.

XI. Points of contact

EFCA Servicedesk

E-mail:

4.3 Dataset 4.3 Fisheries inspection and surveillance information

I. Data group

Fishery information

II. Short description

Fisheries control activity data collected in the framework of the Joint Deployment Plans (JDP) coordinated by the Agency are recorded, managed and analysed by EFCA using a specific in-house application: the JDP Application Database (JADE).

III. Agency responsible for data set

EFCA

IV. Data elements

The purpose of JADE is to register all the information related with the planning, execution and results of JDP. The main entities managed by this module are:

- JDP
- Campaign
- Patrol
- Event (Sighting and Inspection)

The data collected is event based. Each event is a summary of one inspection or one sighting. Each Event is assigned to a Patrol. Each Patrol is executed during a Campaign. Each Campaign belongs to a Joint Deployment Plan (JDP).

Most of the events registered are related to EU fishing vessels. Other vessels might also be object of event reporting (non-fishing vessels, non-EU vessels and recreational vessels). JADE is also used to register targets for inspection provided by Member States.

The number of data elements in Jade is extensive they mainly relate to:

- Events: consists of inspection & sighting information (Activity Report)
- Including vessel ID/details, patrol ID/platform, position/time of event, inspection/sighting results
- Target lists: list/type of vessels targeted for inspection based on risk analysis data
- Data related to last haul inspections: catch data established during last haul
- Information on JDP and Campaigns (basic information regarding scope of JDP's)
- Information regarding patrols (i.e. MS patrol means involved)
- Other specific information (target, business, last haul etc.)

V. Legal basis

Art. 3 of Commission Regulation (EU) 2019/473 on the European Fisheries Control Agency (14 April 2019). Specifying the Mission of the Agency in particular (a) to coordinate control and inspection by Member States related to the control and inspection obligations of the Union; (b) to coordinate the deployment of the national means of control and inspection pooled by the Member States and (c) to assist Member States in reporting information on fishing activities and control and inspection activities to the Commission and third parties;

Each JDP is object of an agreement with participating Member States, which includes data reporting requirements between Member States and EFCA.

VI. Scope and source of data

The data is sourced from own event reporting produced by Member States and EFCA (ActReps) which are then imported by EFCA in JADE.

VII. Technical implementation

JADE application functionalities have been upgraded gradually over recent years. The current version is 2.10.

VIII. Conditions of Access

JADE is only accessible for EFCA staff and/or MS representatives present at EFCA during JDP campaigns.

IX. Status of implementation

JADE is fully implemented and used on a daily basis at EFCA.

X. Dissemination channels

Only accessible for EFCA staff and MS fisheries control authorities. Standard Reports (produced by the application) and Custom reports (designed by users with Administrator profile and based on SQL) can be provided.

XI. Points of contact

EFCA Servicedesk

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4.4 Dataset 4.4 Electronic Reporting System (EFCA-ERS)

I. Data group

Fishery information

II. Short description

The Electronic recording and reporting system (ERS) is used to record, report, process, store and send fisheries data (catch, landing, sales and transshipment) and was established to support the coordination of joint deployment plan operations.

III. Agency responsible for data set

EFCA

IV. Data elements

There is a wide range of data elements imbedded in the EFCA ERS such as:

Vessel activity information

- Message information: operation nr-record nr-message date-reception date-operation message type - ERS message type - subscriber type - communication channel
- Catch declarations: Time of declaration- declaration type - trip ID - Catch per species
- Fishing trip information: Vessel activity - Departure port-Arrival port - Gear used - duration of the trip

Reference data

- Vessel identifiers: CFR - Registration - Vessel Name - IRCS - External Marking
- Vessel attributes: Port Code - Port Name - LOA - GT - Power - Gear types
- Fishing authorisations: Authorization name, Authorization year, Species, Area, Gear, Authorisation type
- Areas: FAO Areas, FAO Divisions, FAO Subareas, FAO Subdivisions, FAO Subunits, Countries zones, ICES zones, EEZ zones, Ports zones, User defined areas

Market information

Senders / Recipients, Fish freshness, Fish packaging, Fish presentation, Fish preservation state, Fish size category, Product destination, PO use, Withdrawal

V. Legal basis

EFCA established the EFCA-ERS system to receive, exchange and process electronic data related to fisheries activities in accordance with Council Regulation (EC) No 1224/2009 and Commission Implementing Regulation (EU) No 404/2011.

VI. Scope and source of data

The EFCA ERS application captures data regarding EU vessel fishing activity, which are sent by the master of the fishing vessel to the flag Member State which in turn forwards the reports to the EFCA. The data in the EFCA ERS helps Member States to get a complete picture of what fishing vessels are doing and enables fisheries control authorities to make a more informed decision on which vessels to inspect.

The EFCA-ERS system allows to:

- Receive, process and store ERS messages
- Exchange these ERS messages with the stakeholders involved in JDP operations (*e.g. MSs, EC, third countries and international organizations*)
- Support users in the CCICs with their operational planning and risk assessment tasks by providing a set of tools to view, search and analyse the ERS messages and to produce statistics and reports based on specific criteria
- Ensure data quality, integrity and reliability through validation operations

VII. Technical implementation

The key element is the electronic logbook where the master of a fishing vessel keeps a record of fishing operations. The record is then sent to the national authorities, which store the information in a secure data base. The data are mainly managed by the Member States' Fisheries Monitoring Centres (FMCs).

The data is exchanged using the European Commission's data exchange highway (DEH) using FLUX (Fisheries Language for Universal eXchange) based on a Master Data register containing data structures and lists of fisheries codes to be used in electronic information recording and exchanges among Member States, the Commission and EFCA.

VIII. Conditions of Access

All Member States fisheries control authorities participating in a JDP shall have access to that specific information in the EFCA-ERS system. Credentials will be created to those Member State officials approved by the Member State Steering Group.

The standard user will have a set of access rights depending on what the EFCA system administrator has defined for this specific role.

IX. Status of implementation

The EFCA-ERS is fully implemented.

X. Dissemination channels

The EFCA ERS data is only disseminated within EFCA and to those Member State officials approved by the Member State Steering Group. The system allows the execution of reports (custom-made query to the database defined by the system administrator) such as Declarations, Daily catches per vessel, Landing Vessel Port. These reports are used for the Control of fisheries activities and Data analysis (Risk analysis).

XI. Points of contact

EFCA Servicedesk

E-mail: servicedesk@efca.europa.eu

5. Ship Inspection Support and Port State Control

Information on Inspections of ships in ports to verify that the condition of the ship complies with the requirements of international conventions. Port State Control for IUU fishing is not included.

5.1 Dataset 5.1 THETIS database

I. Data group

Ship Inspection Support and Port State Control

II. Short description

Information on performed inspections with the aim to enforce compliance with International Conventions and elements of the EU acquis. (as per Directive 2009/16/EC as amended).

III. Agency responsible for data set

EMSA

IV. Data elements

- (a) name of the ship;
- (b) IMO identification number;
- (c) type of ship;
- (d) tonnage (gt);
- (e) year of construction as determined on the basis of the date indicated in the ship's safety certificates;
- (f) name and address of the company of the ship;
- (g) in the case of ships carrying liquid or solid cargoes in bulk, the name and address of the charterer responsible for the selection of the ship and the type of charter;
- (h) flag State;
- (i) classification and statutory certificates issued in accordance with the relevant Conventions, and the authority or organisation that issued each one of the certificates in question, including the date of issue and expiry;
- (j) port and date of the last intermediate or annual survey for the certificates in point (i) above and the name of the authority or organisation which carried out the survey;
- (k) date, country, port of detention.

For ships which have been detained, information published in accordance with Article 26 must also include:

- (a) number of detentions during the previous 36 months;
- (b) date when the detention was lifted;
- (c) duration of detention, in days;
- (d) the reasons for detention, in clear and explicit terms;
- (e) indication, where relevant, of whether the recognised organisation that carried out the survey has a responsibility in relation to the deficiencies which, alone or in combination, led to detention;
- (f) description of the measures taken in the case of a ship which has been allowed to proceed to the nearest appropriate repair yard;
- (g) if the ship has been refused access to any port or anchorage within the Community, the reasons for the measure in clear and explicit terms.

V. Legal basis

Article 26 juncto Annex XIII of Directive 2009/16/EC as amended

VI. Scope and source of data

All foreign ships calling in a port and/or anchorage belonging to a Member State ships are subject to Port State Control (PSC) inspections. PSC is a second line of defence against substandard shipping, the monitoring of compliance with the international standards for safety, pollution prevention and on-board living and working conditions should also be ensured by the port State, while recognising that port State control inspection is not a survey and the relevant inspection forms are not seaworthiness certificates.

The Directive stipulates that the Commission should manage and update the inspection database, in close collaboration with the Paris MOU¹⁹. The inspection database should incorporate inspection data of Member States and all signatories to the Paris MOU. This implies that inspections performed by Canada and Russia are also recorded in the system.

VII. Technical implementation

There is one PSC information system for the entire region: THETIS. This is a web-based application funded by the Commission, managed, operated and hosted by EMSA for and on behalf of all States of the Paris MoU. All data is stored centrally.

The system:

- is used by means of a graphical interface available to authorised users;
- has a mobile version for the creation of inspections (only)
- has a number of webservice to exchange information on inspections with IMO, ILO, Equasis;
- has webservices with the 12 Recognized Organizations for the import of digitized statutory inspections;
- has webservices for the export of inspection information to the respective participating States;
- has 2 versions of a public search engine on both the EMSA and the Paris MoU websites

Inspection information is available as far back as 1992 while inspection information up to 6 years before “today’s date” can be retrieved at any time through the public search engines using the appropriate filters.

VIII. Conditions of Access

Access to data and the system is divided in three distinct methods:

1. **Access to data:** Data is published as per Annex XIII of the Directive through various websites (EMSA, Paris MoU, Equasis). This is for the general public and for consultation only.
2. **Access to the system:** Each participating State has a National Coordinator who decides on the relevance of the request for an account, and is responsible afterwards for user management
3. **Data exports:** Each participating State is entitled to query and obtain relevant data from the system. In case of external requests, the annual meeting of the Paris MoU decides whether to grant the requestor the requested dataset.

Request for data and access beyond national level shall be directed at the Secretariat of the Paris MoU in The Hague, NL whom will then place the request on the agenda of the mentioned meeting.

IX. Status of implementation

The published data related to Directive 2009/16/EC is available on-line is available since 01 January 2011.

X. Dissemination channels

The data is currently available for consultation by the general public:
<https://portal.emsa.europa.eu/web/thetis/inspections>

¹⁹ The organization consists of 27 participating maritime Administrations and covers the waters of the European coastal States and the North Atlantic basin from North America to Europe. The current member States of the Paris MoU are: Belgium, Bulgaria, Canada, Croatia, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Latvia, Lithuania, Malta, the Netherlands, Norway, Poland, Portugal, Romania, the Russian Federation, Slovenia, Spain, Sweden and the United Kingdom

XI. Points of contact

EMSA THETIS helpdesk

Email: THETIS@emsa.europa.eu

Paris MoU Secretariat

Email: Secretariat@parismou.org

5.2 Dataset 5.2 THETIS EU Sulphur

I. Data group

Ship Inspection Support and Port State Control

II. Short description

Information on performed inspections with the aim to enforce compliance with Directive (EU) 2016/802 relating to a reduction in the sulphur content of certain liquid fuels

III. Agency responsible for data set

EMSA

IV. Data elements

- (a) name of the ship;
- (b) IMO identification number;
- (c) type of ship;
- (d) tonnage (gt);
- (e) year of construction as determined on the basis of the date indicated in the ship's safety certificates;
- (f) name and address of the company of the ship;
- (g) findings and actions taken;
- (h) flag State;
- (i) statutory certificates issued in accordance with the relevant Conventions, and the authority or organisation that issued each one of the certificates in question, including the date of issue and expiry;
- (j) port and date of the last intermediate or annual survey for the certificates in point (i) above and the name of the authority or organisation which carried out the survey;
- (k) Description of the type of inspection and where relevant sampling
- (l) date, country, port of inspection.

V. Legal basis

Article 13 Directive (EU) 2016/802 as amended.

VI. Scope and source of data

All ships operating in the EU area as well as Member State ships operating worldwide are to comply with the provisions on fuel quality as laid down in this Directive. Member State shall perform inspections to ensure compliance on both their own and foreign ships.

The scope of the inspection is limited to technical provisions on board, such as special equipment, but also owner and bunker provider, and control of the actual fuel on board eventually by means of sampling.

VII. Technical implementation

There is one Sulphur information system for the entire region: THETIS-EU. This is a web-based application funded by the Commission, managed, operated and hosted by EMSA for and on behalf of all States of the Paris MoU. All data is stored centrally.

To be noted is that Port State Control also covers part of the provisions of the Sulphur Directive but not everything. It may therefore be seen as complementary.

The system:

- is used by means of a graphical interface available to authorised users;
- has an deeply embedded webservice to exchange data between THETIS and THETIS-EU sulphur to reduce the administrative burden in case an inspection would do both a Sulphur inspection and a PSC on the same ship at the same time;
- has a public page on the EMSA websites with aggregated data only
- inspection information is available as far back as 2015.

VIII. Conditions of Access

Access to data and the system is divided in three distinct methods:

1. **Access to data:** Data is published as per decision of the Member States and the Commission through the EMSA website. This is for the general public and for consultation only.
2. **Access to the system:** Each participating State has a National Coordinator who decides on the relevance of the request for an account, and is responsible afterwards for user management
3. **Data exports:** Each participating State is entitled to query and obtain relevant data from the system. In case of external requests, the Sulphur Committee established under art 17 of Directive (EU) 2016/802 shall decide whether to grant the requestor the requested dataset.

IX. Status of implementation

The published data related to Directive (EU) 2016/802 is available on-line is available since 01 January 2016.

X. Dissemination channels

The data is currently available for consultation by the general public: <https://portal.emsa.europa.eu/web/thetis-eu/compliance>

XI. Points of contact

EMSA THETIS helpdesk

Email: THETIS@emsa.europa.eu

5.3 Dataset 5.3 THETIS EU Port Reception Facilities

I. Data group

Ship Inspection Support and Port State Control

II. Short description

Information on performed inspections with the aim to enforce compliance with Directive (EU) 2000/59 on port reception facilities (PRF) for ship-generated waste and cargo residues. This Directive will be repealed by Directive 2019/883 entering into effect on 28 June 2021. The latter is a more detailed version of the previous edition.

III. Agency responsible for data set

EMSA

IV. Data elements

The new Directive entering into effect on 28 June 2021 contains an extensive list of details comprising ship specifics as well as pre-arrival and departure information regarding waste types and volumes.

Specified in Annex 2, 3 and 5 (Dir 2019/883).

Quite a lot of these details are already manually collected in THETIS EU; the new element will be that this will all come through SSN.

V. Legal basis

Article 13 and 14 of Directive (EU) 2019/883 as amended

VI. Scope and source of data

All ships operating in the EU area are to comply with the provisions on delivery of ship generated waste and cargo residues. The operational part of the Directive requires per-arrival notifications specifying the type and volume of waste collected on board. After delivery in port and upon departure, similar notifications have to be provided. The information shall be routed through SSN and be relayed to THETIS EU with an aim to serve the competent authorities on the Member States when selecting ships for inspections, perform and follow-up of inspections as well as to generate statistics on volumes generated and landed.

VII. Technical implementation

There is one PRF information system for the entire region: THETIS-EU. This is a web-based application funded by the Commission, managed, operated and hosted by EMSA for and on behalf of all States of the Paris MoU. All data is stored centrally.

All data detailed in the notifications is collected through SSN for every arrival and departure and subsequently transmitted to THETIS EU where the information is stored, processed and made presentable for the authorised user. Inspection results will be returned on request to the SSN competent authorities in order to provide feedback on the reported information.

To be noted is that Port State Control also covers part of the provisions of the PRF Directive but not everything. It may therefore be seen as complementary.

The system:

- is used by means of a graphical interface available to authorised users;
- has a deeply embedded webservice to exchange data between THETIS and THETIS-EU PRF to reduce the administrative burden in case an inspection would do both a PRF inspection and a PSC inspection on the same ship at the same time;
- Has an inbound webservice from SSN for notification details, and an outbound webservice to SSN for inspection results;
- has no public search engine or aggregated data presentation
- inspection information is available as far back as 2016.

VIII. Conditions of Access

Access to data and the system is divided in two distinct methods:

1. **Access to data:** Data is not published or otherwise available;
2. **Access to the system:** Each participating State has a National Coordinator who decides on the relevance of the request for an account, and is responsible afterwards for user management;

The Directive is placed in the remit of the Committee on Safe Seas and the Prevention of Pollution from Ships (COSS) established by Regulation (EC) No 2099/2002, which is therefore the appropriate forum where data access and system integration may be discussed.

IX. Status of implementation

Directive 2002/59 is supported by THETIS EU since April 2016; the support for the subsequent Directive 2019/883 will be available as from 28 June 2021.

X. Dissemination channels

The data is currently not available outside SSN and THETIS EU.

XI. Points of contact

EMSA THETIS helpdesk

Email: THETIS@emsa.europa.eu

5.4 Dataset 5.4 THETIS EU Maritime Security

I. Data group

Ship Inspection Support and Port State Control

II. Short description

Information on performed ship-inspections with the aim to enforce compliance with Regulation 725/2004 on enhancing ship and port facility security.

III. Agency responsible for data set

EMSA

IV. Data elements

The Regulation makes the ISPS Code mandatory for EU and EEA Member States. Moreover, the Regulation makes Part B mandatory above the voluntary status of the part in the ISPS. The Regulation also applies to some types of nationally flagged ships, unlike the ISPS code which only applies to foreign ships calling at a MS port.

V. Legal basis

The legal basis for the ship-inspections lies in Article 8. The information system has been built following a recent request from the MARSEC Committee mentioned in Article 11 of the Regulation but is not specifically mentioned in the Regulation itself.

VI. Scope and source of data

Ships entering any EU port have to provide a pre-arrival notification, the “security message”. This message is captured by SSN and made available to authorised users. THETIS and THETIS EU are considered information systems for authorised users.

In case of a foreign ship, PSC (THETIS user) may decide to inspect the ship. The ISPS code is part of the relevant instruments for control by PSC. Upon findings, the PSC authority may inform the Security Authority in the Member State whom then will decide to send Duly Authorised Officers to perform a detailed Security inspection.

In the case of a national flagged ship covered only by the Regulation, the primary inspection may be done only by DAO's.

The Competent authority for Security may also perform direct inspections and record those in THETIS EU without waiting for a PSC inspection to report any findings.

All inspections related to the ship only; Security elements of terminals and facilities cannot be recorded in the applications, but these inspections still have to be performed.

The whole of the pre-arrival, and inspection processes are captured in the information systems.

VII. Technical implementation

There is one MARSEC information system for the entire region: THETIS & THETIS-EU. This is a web-based application funded by the Commission, managed, operated and hosted by EMSA for and on behalf of all States of the Paris MoU. All data is stored centrally.

All data detailed in the notifications is collected through SSN for every arrival and departure and subsequently transmitted to THETIS (EU) where the information is stored, processed and made presentable for the authorised user.

To be noted is that Port State Control also covers part of the provisions of the MARSEC Regulation but not everything. It may therefore be seen as complementary.

The system:

- is used by means of a graphical interface available to authorised users;

- has a deeply embedded webservice to exchange data between THETIS and THETIS-EU MARSEC to reduce the administrative burden in case an inspector would do both a MARSEC inspection and a PSC inspection on the same ship at the same time or as follow up;
- Has an inbound webservice from SSN for notification details;
- has no public search engine or aggregated data presentation;
- The PSC public website will show Security deficiencies, but given the sensitive nature of the information, in aggregated format only.

Inspection information related to PSC inspections is available as far back as 2011. In THETIS EU data is available since 2019.

VIII. Conditions of Access

Access to data and the system is divided in two distinct methods:

1. **Access to data:** Data from PSC inspections is only available in aggregated form. Data from MARSEC inspections (THETIS EU) is not available to the public;
2. **Access to the system:** Each participating State has a National Coordinator who decides on the relevance of the request for an account, and is responsible afterwards for user management;

The Regulation is placed in the remit of the Security Committee referred to in Article 11 of the Regulation, which is therefore the appropriate forum where data access may be discussed.

IX. Status of implementation

Directive 2009/16 is supported by THETIS since January 2011 and Regulation 725/2004 is supported by THETIS EU since January 2019.

X. Dissemination channels

The data is currently not available outside SSN and THETIS EU.

XI. Points of contact

EMSA THETIS helpdesk

Email: THETIS@emsa.europa.eu

5.5 Dataset 5.5 THETIS EU Ship Recycling

I. Data group

Ship Inspection Support and Port State Control

II. Short description

Information on performed ship-inspections with the aim to enforce compliance with Regulation 1257/2013 on Ship Recycling.

III. Agency responsible for data set

EMSA

IV. Data elements

Regulation 1257/2013 provides for a comprehensive set of rules and regulations for ship recycling which apply to Flag States, ships and recycling facilities. The Regulation is a precursor of the international Hong Kong Convention which, due to very high ratification thresholds, may never enter into force.

V. Legal basis

The legal basis for inspections sits in both the Regulation Art 11 (inspection by competent authority itself) and in Directive 2009/16 in case inspections on foreign ships are performed by PSC.

VI. Scope and source of data

Data emanates from ship inspections (only). No data on facilities or on Inventories of Hazardous materials is inspected, other than as part of the ship inspection. The ship inspection is also only a enforcement inspection and not an authorisation. Details of the inspection, findings and actions taken as result thereof are recorded in THETIS respectively THETIS EU.

VII. Technical implementation

There is one Ship Recycling information system for the entire region: THETIS-EU. This is a web-based application funded by the Commission, managed, operated and hosted by EMSA for and on behalf of all States to which Regulation (EU) 1257/2013 applies. All data is stored centrally.

All data related to pre-arrival, arrivals and departures is collected through SSN and subsequently transmitted to THETIS (EU) where the information is stored, processed and made presentable for the authorised user.

The system:

- is used by means of a graphical interface available to authorised users;
- has a deeply embedded webservice to exchange data between THETIS and THETIS-EU to facilitate the data sharing process between PSC and the Competent Authority for Ship Recycling;
- Has an inbound webservice from SSN for notification details;
- has currently no public search engine or aggregated data presentation.

inspection information regarding ship recycling is not yet available. The relevant module of THETIS EU will go live in [May 2020]

VIII. Conditions of Access

Access to data and the system is divided in two distinct methods:

1. **Access to data:** Data on Recycling findings as collected during PSC inspections will be available through the public search-engine for PSC data. Data collected during enforcement inspections done by the competent authority is not planned to be made public.
2. **Access to the system:** Each participating State has a National Coordinator who decides on the relevance of the request for an account, and is responsible afterwards for user management;

Access rights to data other than to the Member States is not foreseen in the Regulation. However, the Regulation foresees a committee within the meaning of Regulation (EU) No 182/2011 which is the appropriate forum to discuss access rights and data access.

IX. Status of implementation

Regulation 1257/2013 is supported by THETIS since August 2019 and will be further supported by THETIS EU from [May 2020] which includes the relevant amendments of Directive 2009/16 on PSC.

X. Dissemination channels

The data is currently not available outside THETIS EU.

XI. Points of contact

EMSA THETIS helpdesk

Email: THETIS@emsa.europa.eu

5.6 Dataset 5.6 THETIS EU RoRo Ferry

I. Data group

Ship Inspection Support and Port State Control

II. Short description

Information on performed ship-inspections with the aim to enforce compliance with Directive 2017/2110 on a system of inspections for the safe operation of ro-ro passenger ships and high-speed passenger craft in regular service.

This Directive puts foreign flagged ships fully under PSC and creates a separate regime for national flagged ships.

III. Agency responsible for data set

EMSA

IV. Data elements

The Directive places the enforcement inspections for foreign flagged ships fully under PSC and therefore the inspections fully assimilated and recorded in THETIS as PSC information system. Inspections performed on national flagged ships because the ship either operates domestically, or between a homeport and a non-EU port do not come under PSC and therefore have to be recorded separately. The application to be used is THETIS EU.

These inspections relate to enforcement inspections and are not Flag State surveys related to the validity of statutory certificates.

V. Legal basis

The legal basis for the ship-inspections of national flagged ships lies in Article 2 while the recording in, and functionalities off the information system is regulated in Article 10. The information system has been built to meet the requirement that all its functionalities shall be identical to those in THETIS (PSC) with the aim to make the inspections, data and recording comparable.

VI. Scope and source of data

The data is recorded and managed by Member State authorities performing control/enforcement inspections on RoRo ferries and High-Speed Passenger craft. Although foreign ships are inspected under PSC by the same competent authorities, the inspections are performed only on ships flying the same flag as the port State and therefore cannot be recorded in THETIS.

The scope of the inspections is identical as PSC inspections and has the same characteristics. Instructions and applicable Conventions shall be followed as per Directive 2009/16 on PSC.

Inspection results shall be published as per detailed list is presented in Annex XIII of Directive 2009/16 on PSC.

VII. Technical implementation

There is one Ropax information system for the entire region: THETIS-EU. This is a web-based application funded by the Commission, managed, operated and hosted by EMSA for and on behalf of all States to which Directive (EU) 2017/2110 applies. All data is stored centrally.

All data related to pre-arrival, arrivals and departures is collected through SSN and subsequently transmitted to THETIS (EU) where the information is stored, processed and made presentable for the authorised user.

The system:

- is used by means of a graphical interface available to authorised users;
- has a deeply embedded webservice to exchange data between THETIS and THETIS-EU in case a ship would (temporarily) change route and would suddenly become eligible for PSC inspections ;
- has an inbound webservice from SSN for notification details;
- has currently no public search engine or aggregated data presentation, but this is planned for 2020;

inspection information on Ropaxes is available as far back as 2011 although covered by the previous Directive. In THETIS EU data is available since 21 Dec 2019.

VIII. Conditions of Access

Access to data and the system is divided in two distinct methods:

1. **Access to data:** Data from RoPax inspections will be made available via a dedicated search-engine on a public website during 2020. Data from PSC inspection of RoPaxes is available via the regular PSC search engine.
2. **Access to the system:** Each participating State has a National Coordinator who decides on the relevance of the request for an account, and is responsible afterwards for user management;

Access rights to data other than to the Member States is not foreseen in the Directive. However, to adopt delegated acts referred to in Article 12 (amending the Directive) is conferred on the Commission. BNo Committee (eg COSS) is specified.

IX. Status of implementation

Directive 2017/2110 is supported by THETIS EU since 21 December 2019, which includes the relevant amendments of Directive 2009/16 on PSC.

X. Dissemination channels

The data is currently not available outside THETIS EU, but a public search-engine is planned for 2020.

XI. Points of contact

EMSA THETIS helpdesk

Email: THETIS@emsa.europa.eu

5.7 Dataset 5.7 THETIS MRV - Monitoring, reporting and verification

I. Data group

Ship Inspection Support and Port State Control

II. Short description

Information on fuel consumption and associated air emissions regarding voyages to, from or intra EU waters have to be reported annually for analysis and publication.

III. Agency responsible for data set

EMSA

IV. Data elements

Regulation 757/2015 on monitoring, reporting and verification provides for the collection and validation of details related to ship-operations with regards fuel consumption. These details have to be reported to the Commission on an annual basis, but may be reported in the information system on a “per voyage” basis which then aggregates the data before submission to the Commission.

Data is related to ownership, verifier (those entities confirming the reported information), ship type, engine particulars, fuel tanks and measuring equipment as well as voyage information (aggregated), fuel consumption and fuel types used.

V. Legal basis

The legal basis for reporting the required information sits in Regulation 6 which specifies the templates to be used. The Commission by means of DG CLIMA has concluded an Agreement of Service with EMSA for the creation, management and support of an information system to support the templates. The Regulation also amends Directive 2009/16 on PSC for the purpose of enforcement inspections. During such inspections the availability of a Document of Compliance shall be verified.

VI. Scope and source of data

Data is related to the fuel consumed on voyages from outside to ports in the Union, from ports in the Union to places outside the Union and voyages between two or more ports in the Union.

Shipowners responsible for the respective ship(s) on 31 December of the previous year shall report the necessary information which thereafter has to be verified by an accredited third party. The annual data has to be available by 31 April of the following year and a Document of Compliance will be made available by the system.

The Commission publishes all data as received through a search engine on a public site <https://mrv.emsa.europa.eu/#public/emission-report>. The same site also holds a publicly free downloadable file to serve researchers etc.

Shipowners may opt to require non-publication of the information submitted.

VII. Technical implementation

There is one MRV information system for the entire region: THETIS-MRV. This is a web-based application funded by the Commission, managed, operated and hosted by EMSA for and on behalf of all shipowners of the global community to whom Regulation (EU) 2015/757 applies. All data is stored centrally.

The system:

- is used by means of a graphical interface available to authorised users;
- has a deeply embedded webservice to be fed with new ship data recorded in THETIS;
- has a public search engine and a downloadable file to facilitate research.

Inspection information regarding the availability of the MRV DoC is available. PSC inspections since 01 July 2019 shall include the MRV DoC in the document checks.

VIII. Conditions of Access

Access to data and the system is divided in two distinct methods:

1. **Access to data:** Data on Recycling findings as collected during PSC inspections will be available through the public search-engine for PSC data. Data collected as part of MRV reporting by shipowners is accessible through an on-line search engine complemented with a downloadable file.
2. **Access to the system:** Each Shipowner has one or more accounts. Verifiers have their own accounts and Flag States may have their own accounts. Further types of accounts are not foreseen in the Regulation.

Access rights to data other than published and downloadable for the public site is not foreseen in the Regulation. However, the Regulation foresees a Committee established by Article 26 of Regulation (EU) No 525/2013 of the European Parliament and of the Council which is the appropriate forum to discuss access rights and data access.

IX. Status of implementation

Regulation 757/2015 is supported by THETIS-MRV since August 2017.

X. Dissemination channels

The data is available to the general public through the public website:
<https://mrv.emsa.europa.eu/#public/emission-report>

XI. Points of contact

EMSA THETIS helpdesk

Email: THETIS@emsa.europa.eu

5.8 Dataset 5.8 THETIS Mediterranean MoU

I. Data group

Ship, inspection support and Port State Control

II. Short description

Information on performed inspections with the aim to enforce compliance with International Conventions in accordance with the procedures of the Mediterranean Memorandum of Understanding on Port State Control. (MedMoU)

The MedMou has been redrafted in 2017 to follow the text of the Paris MoU as regards most of the inspection procedures, actions taken and publications.

III. Agency responsible for data set

EMSA

IV. Data elements

- (a) name of the ship;
- (b) IMO identification number;
- (c) type of ship;
- (d) tonnage (gt);
- (e) year of construction as determined on the basis of the date indicated in the ship's safety certificates;
- (f) name and address of the company of the ship;
- (g) in the case of ships carrying liquid or solid cargoes in bulk, the name and address of the charterer responsible for the selection of the ship and the type of charter;
- (h) flag State;
- (i) classification and statutory certificates issued in accordance with the relevant Conventions, and the authority or organisation that issued each one of the certificates in question, including the date of issue and expiry;
- (j) port and date of the last intermediate or annual survey for the certificates in point (i) above and the name of the authority or organisation which carried out the survey;
- (k) date, country, port of detention.

For ships which have been detained, information published in accordance with Article 26 must also include:

- (a) number of detentions during the previous 36 months;
- (b) date when the detention was lifted;
- (c) duration of detention, in days;
- (d) the reasons for detention, in clear and explicit terms;
- (e) indication, where relevant, of whether the recognised organisation that carried out the survey has a responsibility in relation to the deficiencies which, alone or in combination, led to detention;
- (f) description of the measures taken in the case of a ship which has been allowed to proceed to the nearest appropriate repair yard;
- (g) if the ship has been refused access to any port or anchorage within the Community, the reasons for the measure in clear and explicit terms.

V. Legal basis

There is no strict legal basis in EU legislation, but the project has been developed under the SAFEMED IV project under the auspice of DG NEAR.

VI. Scope and source of data

All foreign ships calling in a port and/or anchorage belonging to a State are subject to Port State Control (PSC) inspections. PSC is a second line of defence against substandard shipping, the monitoring of compliance with the international standards for safety, pollution prevention and on-board living and working conditions should also be ensured by the port State, while recognising that port State control inspection is not a survey and the relevant inspection forms are not seaworthiness certificates.

The MedMoU has implemented the IMO Resolution on PSC in the text of its Memorandum and recently amended the text to resemble the Paris MoU - and with that by implication EU Directive 2009/16. Several elements were not taken on board such as the “expanded inspection”. This does not affect the scope of data.

VII. Technical implementation

There is one PSC information system for the entire region: THETIS-MED. This is a web-based application funded by the Commission, managed, operated and hosted by EMSA for and on behalf of all States²⁰ of the Mediterranean MoU. All data is stored centrally.

The system:

- is used by means of a graphical interface available to authorised users;
- has webservice to exchange information on inspections with IMO and Equasis;
- has webservices with THETIS to include inspections performed by CY and MT in the context of the Paris MoU;
- has 2 versions of a public search engine on both the EMSA and the MedMoU websites

inspection information, including migrated data, is available as far back as 2000 while inspection information up to 6 years before “today’s date” can be retrieved at any time through the public search engines using the appropriate filters.

VIII. Conditions of Access

Access to data and the system is divided in three distinct methods:

1. **Access to data:** Data is published as per the text of the Memorandum through various websites (EMSA, Paris MoU, Equasis). This is for the general public and for consultation only.
2. **Access to the system:** Each participating State has a National Coordinator who decides on the relevance of the request for an account, and is responsible afterwards for user management
3. **Data exports:** Each participating State is entitled to query and obtain relevant data from the system. In case of external requests, the annual meeting of the MedMoU decides whether to grant the requestor the requested dataset.

Request for data and access beyond national level shall be directed at the Secretariat of the Mediterranean MoU in Cairo, Egypt whom will then place the request on the agenda of the mentioned meeting.

IX. Status of implementation

The published data related to the Memorandum is available on-line since 01 January 2013. After the recent entry into operation of THETIS-MED, all publication obligations have been assumed by this system, including the data previously stored in MEDSiS.

X. Dissemination channels

The data is currently available for consultation by the general public: <https://portal.emsa.europa.eu/web/thetis-med/homepage>

²⁰ The Mediterranean MoU has been established on 11 July 1997 and currently comprises Algeria, Cyprus, Egypt, Israel, Jordan, Lebanon, Malta, Morocco, Tunisia and Turkey

XI. Points of contact

EMSA THETIS helpdesk

Email: THETIS@emsa.europa.eu

Paris MoU Secretariat

Email: Secretariat@parismou.org

MedMoU secretariat

Email: Secretariat@medmou.org

5.9 Dataset 5.9 THETIS eCertificates

I. Data group

Ship Inspection Support and Port State Control

II. Short description

Information on Statutory and Class certificates, including Class conditions provided directly from the source.

III. Agency responsible for data set

EMSA

IV. Data elements

Regulation 391/2009 provides that those entities which are recognised by the European Union and therefore authorised to act on behalf of EU Flag States (RO's) need to share a set of data on issued certificates and raised observations (conditions) within 72 hours with the database for PSC.

V. Legal basis

The legal basis for the provision of data sits in Art 10.4 of the Regulation.

VI. Scope and source of data

The data relates to those certificates and conditions which have been issued by the third party (RO) while surveying one of the ships in their register. The data have to be transmitted within 72 hours after recording the change in the RO database. It is therefore the best live picture of a ship possible, noting that new certificates will be issued when there are changes of flag, name, managers etc.

Limitation is that the Regulation only applies to the 13 largest RO's, still leaving 15 to 20% of the world fleet uncovered.

Further limitation is that the information is only provided for the part of the work per ship the RO is responsible for. This could be a full set, but it could also be a part of it.

VII. Technical implementation

The Regulation regulates that the information from the RO's shall be made available for the system related to PSC. This is the THETIS information system.

Data from the 13 individual (EU) RO's is transmitted daily via individual webservices to THETIS, stored and cleaned and posted in a way that it can be used for consultation by authorised users, and made available for selection to be included in a new inspection report, with an aim to reduce the administrative burden.

The system:

- is used by means of a graphical interface available to authorised users;
- has 13 individual webservices to convey data of 37 identified Statutory Certificates;
- has currently no public search engine or aggregated data presentation.

VIII. Conditions of Access

Access to data and the system is divided in two distinct methods:

1. **Access to data:** e-certificates as collected from the RO's are available to authorised users of THETIS for consultation, processing and follow up during inspections.
2. **Access to the system:** Each participating State has a National Coordinator who decides on the relevance of the request for an account, and is responsible afterwards for user management;

Access rights to data other than to the Member States is not foreseen in the Regulation. However, the Common Ship Database is considered part of the THETIS platform and data will be shared with the CSD once the development is available.

The Regulation falls under the remit of the Committee on Safe Seas and the Prevention of Pollution from Ships (COSS) established by Regulation (EC) No 2009/2002 of the European Parliament and of the Council, which is the relevant forum for further discussion on extension of access rights.

IX. Status of implementation

Regulation 319/2009 is supported by THETIS since January 2011. The technical implementation and scope were rather limited until 2015 when a full webservice came into operation. In 2019 a new webservice with a wider scope has been put in place, and is gradually implemented, noting that the senders have to rebuild their side as well.

The webservices are mandatory for the 13 EU RO's but may be used voluntarily by any Flag State and other RO's as well.

X. Dissemination channels

The data is currently not available outside THETIS.

XI. Points of contact

EMSA THETIS helpdesk

Email: THETIS@emsa.europa.eu

5.10 Dataset 5.10 THETIS Insurance Information

I. Data group

Ship Inspection Support and Port State Control

II. Short description

Directive 2009/20/EC on the insurance of shipowners for maritime claims forces that all ships under the flag of a Member State as well as all other ships have an insurance cover for maritime claims as specified in the Limited Liability Convention 1996.

III. Agency responsible for data set

EMSA

IV. Data elements

Directive 2009/20/EC focusses on the availability of a certificate to prove the presence of coverage for maritime claims. The inspection is delegated to Port State Control, but it also prescribes refusal of access of ships to ports in case of absence of said certificate.

The data therefore relates to the availability of the certificate (Y/N) and more importantly to any action taken by the competent authorities.

V. Legal basis

The legal basis for the inspections and recording under PSC sits in Article 5. This Article includes actions which a coastal State may have to take in case the absence of a certificate is detected pre-entry.

VI. Scope and source of data

The data focusses on the availability of a certificate to prove coverage by insurance against maritime claims, but does not look at the exact detail of the terms and conditions. This is to be monitored by the issuing entity.

Actions taken by the inspecting authority are prescribed by the Directive and enforced by Port State Control. Actions taken are an integral part of the dataset.

VII. Technical implementation

THETIS serves the enforcement of the Insurance Directive through PSC. This is a web-based application funded by the Commission, managed, operated and hosted by EMSA for and on behalf of all EU Port States. All inspection data is stored centrally. Noting that not all EU ships are inspected annually, it cannot be concluded at random that all ships have a (valid) certificate.

The system:

- is used by means of a graphical interface available to authorised users;
- has a public search engine.

Inspection information regarding PSC inspections is available and searchable for consultation on a public site. However, noting that the Insurance Directive has no publication requirement, the (non) availability of the certificate is not published.

VIII. Conditions of Access

Access to data and the system is divided in two distinct methods:

1. **Access to data:** Data on recorded findings during PSC inspections can be extracted from the system by EMSA only.
2. **Access to the system:** Each participating State has a National Coordinator within the competent authority for PSC who decides on the relevance of the request for an account and is responsible afterwards for user management one or more accounts.

In the absence of a legalised Committee, requests for data shall be directed at the Commission, DG MOVE.

IX. Status of implementation

Directive 2009/20/EC is supported by THETIS since January 2011.

X. Dissemination channels

The data is not available outside THETIS

XI. Points of contact

EMSA THETIS helpdesk

Email: THETIS@emsa.europa.eu

5.11 Dataset 5.11 THETIS Liability of Carriers of Passengers

I. Data group

Ship Inspection Support and Port State Control

II. Short description

Regulation (EC) 392/2009 on the liability of carriers of passengers by sea in the event of accidents obliges all shipowners operating passenger ships in EU waters or to and from EU ports to be covered for Liability in case of accidents. The Regulation has similar legal requirements as the Athens Convention 2002, but extends the obligation to ships operating domestically in sea-areas A and B.

III. Agency responsible for data set

EMSA

IV. Data elements

Regulation (EC) 392/2009 focusses on the availability of a certificate to prove the presence of coverage for relevant claims. The inspection is delegated to Port State Control, but the Regulation also obliges Flag State to prevent ships to operate without certificate of cover.

The data therefore relates to the availability of the certificate (Y/N) and more importantly to any action taken by the competent authorities.

V. Legal basis

The legal basis for the inspections and recording under PSC sits in Annex IV of Directive 2009/16 on PSC. This Annex recalls the certificates and documents to be checked (where relevant) during any PSC inspection.

VI. Scope and source of data

The data focusses on the availability of a certificate to prove liability of carriers of passengers by sea in the event of accidents, but does not look at the exact detail of the terms and conditions. This is to be monitored by the issuing entity.

Actions taken by the inspecting authority are prescribed by the Regulation and enforced by Port State Control. Actions taken are an integral part of the dataset. Any action taken by the Flag State is not covered by THETIS at this moment.

VII. Technical implementation

THETIS serves the enforcement of the Liability Regulation through PSC. This is a web-based application funded by the Commission, managed, operated and hosted by EMSA for and on behalf of all EU Port States. All inspection data is stored centrally. Noting that not all EU ships are inspected annually, it cannot be concluded at random that all ships have a (valid) certificate.

The system:

- is used by means of a graphical interface available to authorised users;
- has a public search engine.

Inspection information regarding PSC inspections is available and searchable for consultation on a public site. However, noting that the Liability Regulation has no publication requirement, the (non) availability of the certificate is not published.

VIII. Conditions of Access

Access to data and the system is divided in two distinct methods:

1. **Access to data:** Data on recorded findings during PSC inspections can be extracted from the system by EMSA only.
2. **Access to the system:** Each participating State has a National Coordinator within the competent authority for PSC who decides on the relevance of the request for an account, and is responsible afterwards for user management one or more accounts.

The Regulation has been placed in the remit of the Committee on Safe Seas and the Prevention of Pollution from Ships (COSS) established by Article 3 of Regulation (EC) No 2099/2002. Requests for data shall be directed at this Committee.

IX. Status of implementation

Regulation (EC) 392/2009 is supported by THETIS since July 2013 following its entry into force.

X. Dissemination channels

The data is not available outside THETIS.

XI. Points of contact

EMSA THETIS helpdesk

Email: THETIS@emsa.europa.eu

5.12 Dataset 5.12 RuleCheck

I. Data group

Ship Inspection Support and Port State Control

II. Short description

Rulecheck provides an interactive overview of all Conventions and EU acquis related to seagoing shipping as deemed within the mandate of EMSA.

III. Agency responsible for data set

EMSA

IV. Data elements

All International Maritime Conventions, Codes, Resolutions, Circulars etc as published by the IMO and ILO and all EU Regulations, Directives, Acts and Decisions as published by the EU are collected in Rulecheck and are made searchable in various ways. Rulecheck therefore contains a comprehensive and up-to-date set of legislation applicable to shipping.

V. Legal basis

There is no specific legal basis for the application other than the EMSA Founding Regulation and the work program.

VI. Scope and source of data

All international Maritime Conventions are obtained and provided via the contractor for the application. Source of the information are the IMO and ILO respectively. EU texts originate from EURLEX.

Manuals and Instructions of the Paris MoU of PSC, The Black Sea MoU, the Mediterranean and Caribbean MoU's are included for authorised users only.

All texts are made available under a general disclaimer stating that the original texts prevail in case of doubt, and that data shall not be reproduced or used commercially outside Rulecheck.

VII. Technical implementation

There is one Rulecheck information system for all users. Access control will grant access to specific folders for specific user groups

The system:

- is used by means of a graphical interface available to authorised users;
- has a deeply embedded webservice to provide legal references directly to THETIS at deficiency level
- Has a direct connection to the Common Hazardous Material database for the provision of the IMDG and IBC/IGC dangerous goods lists;
- has no public search engine or aggregated data presentation;
- Will have a mobile application to be launched during 2020 which will work as a "mini browser" in order to control access to the data.

VIII. Conditions of Access

Access to the system is for authorised users. Authorisation is granted and managed by EMSA.

1. In the case of EU PSC or other governmental users: directly
2. In the case of non-EU PSC users where an Agreement is in place: directly
3. In the case of a new Organisation via an Agreement of Service between the to be served Organisation and EMSA's Executive Director.

IX. Status of implementation

The application is available since 2007 and is updated with new and amended texts every 6 months.

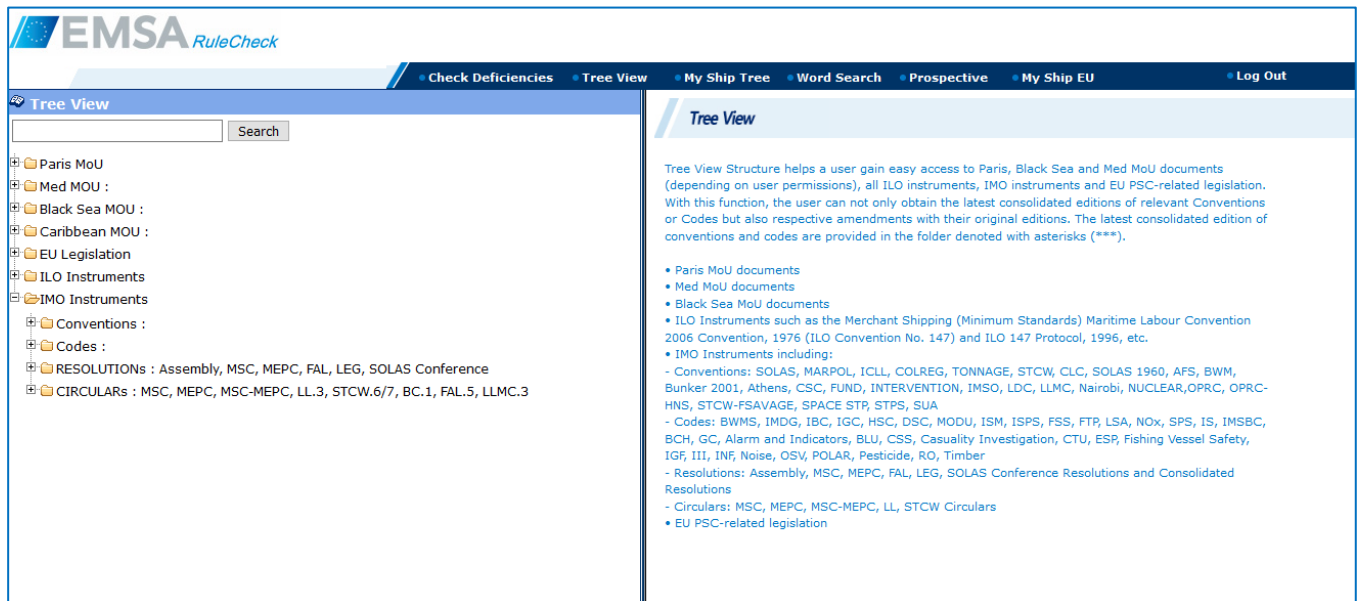
X. Dissemination channels

The access to the application is currently only available via the EMSA portal.

XI. Points of contact

EMSA THETIS helpdesk

Email: THETIS@emsa.europa.eu



The screenshot displays the EMSA RuleCheck application interface. The top navigation bar includes links for Check Deficiencies, Tree View, My Ship Tree, Word Search, Prospective, My Ship EU, and Log Out. The main content area is titled 'Tree View' and features a search bar. The left sidebar shows a hierarchical tree structure of documents, including Paris MoU, Med MOU, Black Sea MOU, Caribbean MOU, EU Legislation, ILO Instruments, and IMO Instruments. The right pane provides a detailed description of the Tree View structure, explaining that it helps users gain easy access to various maritime documents and instruments, including Paris MoU documents, Med MOU documents, Black Sea MoU documents, ILO Instruments, and IMO Instruments. It also lists specific conventions, codes, resolutions, and circulars available within the system.

Tree View Structure helps a user gain easy access to Paris, Black Sea and Med MoU documents (depending on user permissions), all ILO instruments, IMO instruments and EU PSC-related legislation. With this function, the user can not only obtain the latest consolidated editions of relevant Conventions or Codes but also respective amendments with their original editions. The latest consolidated edition of conventions and codes are provided in the folder denoted with asterisks (***) .

- Paris MoU documents
- Med MoU documents
- Black Sea MoU documents
- ILO Instruments such as the Merchant Shipping (Minimum Standards) Maritime Labour Convention 2006 Convention, 1976 (ILO Convention No. 147) and ILO 147 Protocol, 1996, etc.
- IMO Instruments including:
 - Conventions: SOLAS, MARPOL, ICLL, COLREG, TONNAGE, STCW, CLC, SOLAS 1960, AFS, BWM, Bunker 2001, Athens, CSC, FUND, INTERVENTION, IMSO, LDC, LLMC, Nairobi, NUCLEAR,OPRC, OPRC-HNS, STCW-FSAVAGE, SPACE STR, STPS, SUA
 - Codes: BWMS, IMDG, IBC, IGC, HSC, DSC, MODU, ISM, ISPS, FSS, FTP, LSA, NOx, SPS, IS, IMSBC, BCH, GC, Alarm and Indicators, BLU, CSS, Casualty Investigation, CTU, ESP, Fishing Vessel Safety, IGF, III, INF, Noise, OSV, POLAR, Pesticide, RO, Timber
 - Resolutions: Assembly, MSC, MEPC, FAL, LEG, SOLAS Conference Resolutions and Consolidated Resolutions
 - Circulars: MSC, MEPC, MSC-MEPC, LL, STCW Circulars
- EU PSC-related legislation

5.13 Dataset 5.13 Equasis (Electronic Quality Shipping Information System)

I. Data group

Ship Inspection Support and Port State Control

II. Short description

Equasis is a tool aimed at reducing substandard shipping, providing safety and environmentally related information on ships and shipping companies.

III. Agency responsible for data set

EMSA

IV. Data elements

- Information on ship info and ship identification: IMO number, ship name and flag, Gross Tonnage, type of ship, year of built, MMSI, call sign, DWT, Status, the flag State performance as far port State control inspections is concerned.
- Information on management detail: IMO number, Role, Name of the company, address, date of effect and other details, like for example percentage having at least one class certificate issued by an IACS member.
- Synthesis of inspections related to ISM Manager, Registered Owner, Ship manager/commercial manager: Company's role, No. of ships in company, in last 3 years for the company (no. inspections + no. detentions) and in last 3 years remaining companies (no. inspections + no. detentions).
- Information on ship Classification: status and surveys.
- P & I information
- Geographical information: date of record, Areas where the ship was seen, source of the information
- Convention, Association and manning: convention and status (accession, ratification, denunciation)
- Information on ship history: current and former flag(s), list of renewal surveys, company (ISM, registered Owner and Ship manager/commercial manager).
- Ship inspections: list of port state controls, human element deficiencies (PSC organisation, authority, port of inspection, type of inspection, date of report, human element deficiencies and details related to the category of the deficiency and the number of deficiencies).

V. Legal basis

This was a result of a European Commission and the French Maritime Administration decision to cooperate in developing an information system which collates existing safety-related information on ships from both public and private sources and makes it free of any charge available on the Internet. It is funded by 9 safety minded Flag States (Brazil, Canada, France, Japan, Republic of Korea, Norway, Spain, the United Kingdom and the USA) and EMSA which have signed the Memorandum of Understanding.

VI. Scope and source of data

All type of ships including fishing vessels.

Data is provided by over 60 data providers including Regional PSC MoU's, recognised organisations, ship insurers, IHS Markit, industry representatives, intergovernmental organisations (IMO, ILO etc) and other stakeholders who hold information regarding shipping (MarineTraffic, VesselTracker, AXSMarine).

VII. Technical implementation

Data is provided by over 60 data listed above on a weekly, monthly or half yearly basis. As soon as it is received it is uploaded into the database. As a matter of principle, Equasis does not modify the data from its providers before displaying it, and each piece of information displayed in Equasis can be easily traced to a provider.

EMSA hosts the Management Unit and the Technical Unit and the database is hosted by France.

VIII. Conditions of Access

Public access is allowable after registration for consultation only. No part of the information contained on the Equasis website may be stored in a retrieval system, or transmitted in any form or by any means, without prior permission in writing from Equasis.

Equasis does not forward or provide its data to third parties unless prior agreement has been reached with the provider of the transmitted data. Equasis does not provide tailor-made services such as customised lists of ships or companies.

The following actions are strictly forbidden:

- The reproduction of data contained on the site in any way for commercial purposes.
- Massive or bulk-downloading of data contained on the site.
- Use of web-robot or similar technics to download data in an automated and/or regular manner.

The above list is not exhaustive. Equasis continuously monitors the activity on its website, and if misuse is detected, then the user's account can be locked without prior notice.

IX. Status of implementation

This data set is accessible 24hrs a day after registration.

X. Dissemination channels

Equasis seeks to facilitate access to its data using various devices in order to promote its usage and to cope with other Equasis-related usage scenarios. The following Equasis applications have been freely available to the public since 2013:

- Equasis Mobile website²¹;
- Equasis iOS application;
- Equasis Android Application.

The data is also currently available via the SafeSeaNet Ecosystem Graphical User Interface (SEG) for the Member State and Institutional operations, including EFCA IMS.

XI. Points of contact

Equasis Management Unit

Email: secretariat@equasis.org

²¹ The Mobile app will be deactivated and instead there will be a mobile button enabling users to have a direct link to the Equasis webpage.

6. Earth Observation Products

Satellite imagery and associated products, acquired under CleanSeaNet and the Copernicus Programme.

6.1 Dataset 6.1 CleanSeaNet oil spill and vessel detection services products

I. Data group

Earth Observation Products

II. Short description

CleanSeaNet is the European satellite-based oil spill and vessel detection service which offers assistance to participating States for the following activities:

- Identifying and tracing oil pollution on the sea surface;
- Monitoring accidental pollution during emergencies;
- Contributing to the identification of polluters.

III. Agency responsible for dataset

EMSA

IV. Product elements

The following products are available in CleanSeaNet

- Basic products: Basic products include SAR and optical images from all EMSA available satellites (list defined in data sources section).
- Value added products

Value added products	Description
Oil spill detection	The oil spill detection product refers to the identification of potential oil spills in satellite images (both SAR and optical). The nominal delivery times for this product are 20 minutes for SAR based images and 40 minutes for optical. The relevant attributes of the oil spill product are: • Centre - latitude/longitude coordinates • Geometry - polygon describing oil spill and associated slicks boundaries • Area - expressed in m2 • Time stamp - date/time of the observation • Classification level - the probability/ confidence that the detection is oil • Possible pollution source type/detection/vessel identification/track
Vessel detection	The vessel detection product refers to the extraction of vessel positions based on echoes or detectable objects in the satellite image that may be vessels. This product has nominal delivery times of 20 minutes for SAR-based and 40 minutes for optical-based products and it includes the following attributes: • Position - latitude/longitude coordinates • Time Stamp - date/time of acquisition • Confidence level of vessel detection - quantitative measurement of the uncertainty associated with the detection of a vessel, on a scale 1 to 100%

Value added products	Description
	- Length and width - expressed in meters (when possible) - Heading - route direction (when possible) - Speed - expressed in m/s (when possible) - Vessel classification - category of the vessel e.g. fishing vessel, sailing vessel, merchant vessel (when possible) - Associated error elements for all parameters
Met-Ocean products (SAR derived wind and wave)	This product entails the delivery of a package containing ocean surface wind and wave (swell) derived from SAR imagery. The attributes of these products are: - Wind speed - expressed in m/s - Wind direction - wind from direction - Wave height - sea surface swell wave significant height, expressed in m - Wave direction - sea surface swell wave direction

• Fusion products

Fusion products	Description
Vessel detection correlation	Vessel detections derived from SAR and optical images are correlated against vessel data, such as: - Automatic Identification System (AIS) reported positions from terrestrial and satellite AIS system data; - Long Range Identification and Tracking (LRIT) reported positions; - Vessel Monitoring System (VMS) data. This product provides an overview of which vessels are reporting and which are not in a given area and contains two layers: - Vessel detections correlated with vessel reporting information - Vessel detections not correlated with vessel reporting information It should be noted that a user will only receive correlations of vessel reporting information for which that user has been granted the relevant access rights.
Oil spill alert reports	This product is based on the Quasi Real Time (QRT)/Near Real Time (NRT) analysis of satellite images in order to detect possible oil spills on the sea surface. When a possible spill is detected within the alert area of a coastal state, an oil spill notification is sent to the relevant authorities. This report includes: - Complete details of the oil spills detected - Identification of polluters - Alert level based on user defined rules - Context maps overlaying electronic nautical charts with the possible spill position.

Full documentation characterizing the individual data elements for basic, value added and fusion products are available in the Earth Observation Data Centre (EODC) External Interface Control Document (EICD) version 2.0.0.

V. Legal basis

Directive 2005/35/EC (since amended by Directive 2009/123/EC) on ship-source pollution and on the introduction of penalties, including criminal penalties, for pollution offences. The Directive tasks EMSA to "work with the Member States in developing technical solutions and providing technical assistance in actions such as tracing discharges by satellite monitoring and surveillance".

VI. Scope and source of data

The CleanSeaNet service is based on the regular ordering of Synthetic Aperture Radar (SAR) satellite images, providing night and day worldwide coverage of maritime areas independent of fog and cloud cover. The information retrieved includes among others: spill location, spill area and length, confidence level of the detection and supporting information on the potential source of the spill (i.e. detection of vessels and oil and gas installations). Optical satellite images can also be acquired upon request, depending on the situation and user's needs and mostly in support to pollution emergencies

The following sources of data are used in CleanSeaNet products:

- Earth Observation

Synthetic Aperture Radar (SAR)	Optical
Sentinel-1A/B L1B	Worldview-1/2/3
Radarsat-2	GeoEye
TerraSAR-X/Tandem-X	Pleiades 1A/1B
PAZ	SPOT-5/6/7
	Deimos-2
	EROS-B

- In-situ data used in the production, quality control and validation of basic and added value products
- Vessel reporting information

VII. Technical implementation

The provision of CSN relies on several different technical components:

- Satellite assets used to acquire images.
- Ground stations used in the downlink and processing of the satellite data received.
- High speed networks used in the delivery of information from ground stations to EMSA.
- EMSA's Earth Observation Data Centre, where the products are received, ingested, further processed and enriched, and made available to users and other EMSA systems.

VIII. Conditions of Access

Public administrations (e.g. marine pollution response authorities, harbour authorities, coast guard) from the 27 EU Member States and EFTA coastal states can access the CleanSeaNet products. Additionally, beneficiary countries of the European Neighbourhood Policy projects can also access the service.

IX. Status of implementation

Products are already available to authorised users.

X. Dissemination channels

The information is made available through several channels:

- SafeSeaNet Ecosystem Graphical User Interface (SEG)
- System to system interfaces to EMSA's Earth Observation Data Centre
- Via alert reports and notifications

XI. Points of contact

CleanSeaNet service: cleanseanet@emsa.europa.eu

EMSA's Maritime Support Services (MSS)

Tel: +351 211 209 415

Fax: +351 211 209 480

Email: MaritimeSupportServices@emsa.europa.eu

6.2 Dataset 6.2 Copernicus Border Surveillance Service (Maritime) products

I. Data group

Earth Observation Products

II. Short description

Copernicus is a European Union Programme aimed at developing European information services based on satellite Earth Observation (EO) and in-situ (non-space) data. The Copernicus Border Surveillance Service (CBS) aims at supporting the activity of law enforcement and border management authorities in the Member States and Schengen Associate Countries with their efforts to detect and prevent irregular migration and cross border crime as well as contributing to the saving of lives at sea.

III. Agency responsible for the dataset

Frontex

IV. Service elements²²

Services provided (in the maritime domain)	Description
Coastal Monitoring	<u>Purpose:</u> Punctual and ad-hoc imagery analysis reports, vectorised data and imagery of coastal strips (beaches and ports) identified through risk analysis to support the operational assessment of irregular migration and cross-border crime related activities. <u>Objects of Interest:</u> - Vessels, including wooden boats, rubber boats and speed boats, within the AOI - Coastal infrastructure (ports, road network, buildings, tents, huts) and activities (makeshift camps; gatherings of people or vehicles) - Infrastructure which could be utilized for the manufacturing, modification or repair of boats <u>Data:</u> - Electro-optical satellite imagery - SAR imagery <u>Analysis:</u> - Punctual analysis - Change detection - Activity analysis - Determination of departure <u>Delivery time:</u> - Fast delivery: 3 hr - Complete Product: 24 hr
Maritime Surveillance of an Area of Interest	<u>Purpose:</u> Detect, identify and track vessels/craft suspected or having been identified as being used for irregular migration or cross border crime using Earth Observation data combined with In-Situ data provided by open source, and by other platforms and sensors.

²² The Copernicus Border Surveillance Service is currently being re-designed in preparation of the next phase of the Copernicus programme under the MFF 2021 – 2027 and in line with Reg (EU) 2019/1896.

Services provided (in the maritime domain)	Description
	<u>Objects of Interest:</u> • Vessels within the AOI <u>Data:</u> • Electro-optical satellite imagery • Vessel reporting systems • Open source data • In-situ platforms data <u>Delivery time:</u> • Depending on the data source, instantly for vessel reporting systems in coverage to 1hr after image acquisition for satellite imagery.
Vessel Detection Service	<u>Purpose:</u> Satellite based vessel detection (SAR) and identification (optical) correlated with collaborative systems (AIS, LRIT) <u>Objects of interest:</u> • Vessels within the AOI <u>Data:</u> • SAR imagery • Vessel reporting systems • Open source data • In-situ platforms data <u>Delivery time:</u> • 1 hr with minimum 1 day planning lead time
Vessel Tracking and Reporting	<u>Purpose:</u> Tracking of vessels/other craft over high seas suspected or having been identified as being used for irregular migration or cross border crime using reporting systems. <u>Objects of interest:</u> • Vessels legally mandated to carry reporting systems within the AOI <u>Data:</u> • Electro-optical satellite imagery • Vessel reporting systems • Open source data <u>Delivery time:</u> Depending on the data source, instantly for vessel reporting systems in coverage to 1hr after image acquisition for satellite imagery.
Vessel Anomaly Detection	<u>Purpose:</u> Provision of alerts generated automatically when suspicious vessel behaviour is detected. <u>Objects of interest:</u> • Vessels suspected to be involved in illegal activity <u>Data:</u> • Vessel reporting systems

Services provided (in the maritime domain)	Description
	• Open source data • Maritime data analytics <u>Delivery time:</u> Instantly for vessel reporting systems in coverage.
Environmental Assessment ²³	<u>Purpose:</u> Environmental information to support operational planning, decision making processes, and satellite acquisition planning.

V. Legal basis

Copernicus is a European Union Programme aimed at developing European information services based on satellite Earth Observation and in-situ (non-space) data. The program was established by Regulation (EU) No 377/2014 and is coordinated and managed by the European Commission. Copernicus provides vast amounts of global data from satellites and from ground-based, airborne and seaborne measurement systems are being used to provide information to help service providers, public authorities and other international organisations improve the quality of life for the citizens of Europe. The information services provided are freely and openly accessible to its users, with the exception of the Copernicus Security services. Cooperation of Frontex with the Copernicus programme is stated in Reg (EU) 2019/1896.

VI. Scope and source of data

The CBS (maritime) offers a global view on maritime related data and information in support of the EBCG's and other law enforcement agencies' situational awareness regarding illegal migration and cross-border crime. It also supports the EU efforts to reduce the loss of lives at sea.

The data comes from a variety of institutional (EMSA, EFCA, EU SatCen and Copernicus Space Data Access System), commercial partners and open sources and is aggregated and fused by Frontex. Data sources include space borne sensors, vessel reporting systems, commercial databases and open source, such as media.

VII. Technical implementation

The CBS is provided within the framework of EUROSUR Fusion Services.

VIII. Conditions of Access

The CBS is accessible by the EBCG and other law enforcement agencies. Access might be restricted depending on the sensitivity and classification of the products.

IX. Status of implementation

Operational

X. Dissemination channels

Delivered via EUROSUR Fusion Services (EFS).

XI. Points of contact

EUROSUR Fusion Services (EFS) Service Desk

Email: efs@frontex.europa.eu

²³ For information on content refer to dataset 7.5 & 7.6.

6.3 Dataset 6.3 Copernicus Maritime Surveillance Service products

I. Data group

Earth Observation Products

II. Short description

Copernicus is a European Union Programme aimed at developing European information services based on satellite Earth Observation (EO) and in-situ (non-space) data. The CMS service supports monitoring of human activity at sea for a range of functions, including amongst others fisheries control, maritime safety and security, marine environment pollution monitoring, customs, and law enforcement. The CMS service can be accessed by European Union (EU) and European Free Trade Association (EFTA) national administrations with responsibilities at sea, as well as relevant EU bodies and institutions.

III. Agency responsible for the dataset

EMSA

IV. Product elements

The following products are available in CMS:

- Basic products include SAR and optical images from all EMSA available satellites (list defined in data sources section).
- Value added products

Value added products	Description
Oil spill detection	The oil spill detection product refers to the identification of potential oil spills in satellite images (both SAR and optical). The nominal delivery times for this product are 20 minutes for SAR based images and 40 minutes for optical. The relevant attributes of the oil spill product are: • Centre - latitude/longitude coordinates • Geometry - polygon describing oil spill and associated slicks boundaries • Area - expressed in m2 • Time stamp - date/time of the observation • Classification level - the probability/ confidence that the detection is oil • Possible pollution source type/detection/vessel identification/track
Vessel detection	The vessel detection product refers to the extraction of vessel positions based on echoes or detectable objects in the satellite image that may be vessels. This product has nominal delivery times of 20 minutes for SAR-based and 40 minutes for optical-based products and it includes the following attributes: • Position - latitude/longitude coordinates • Time Stamp - date/time of acquisition • Confidence level of vessel detection. - quantitative measurement of the uncertainty associated with the detection of a vessel, on a scale 1 to 100% • Length and width - expressed in meters (when possible) • Heading - route direction (when possible) • Speed - expressed in m/s (when possible) • Vessel classification - category of the vessel e.g. fishing vessel, sailing vessel, merchant vessel (when possible)

Value added products	Description
	Associated error elements for all parameters
Wake Detection	The Wake Detection product aims to identify potential vessel wakes and, when possible, to detect the vessel associated with the wake. The WDS product has nominal delivery times of 30 minutes for SAR-based and 50 minutes for optical-based products and it includes the following attributes: - Position - latitude/longitude coordinates - Time Stamp - date/time of acquisition - Wake geometry - polygon contouring the wake geometry - Length and width - expressed in meters (when possible) - Heading - route direction (when possible) - Confidence level of wake detection - quantitative measurement of the uncertainty associated with the detection of a vessel wake, on a scale 1 to 100%
Feature Detection	This product entails detection features of interest at sea, in the shoreline and in harbour areas which are not covered by other EO products, such as, oil spill detection, vessel detection or activity detection. The feature detection product has nominal delivery times of 30 minutes for SAR-based and 50 minutes for optical-based products and it includes the following attributes: - Feature description - high level description of the detected feature - Position - latitude/longitude coordinates - Time Stamp - date/time of acquisition - Confidence level of feature detection- quantitative measurement of the uncertainty associated with the detection of a feature, on a scale 1 to 100% - Length and width - expressed in meters (when possible) - Heading - route direction (when possible) - Vessel classification - category of the vessel e.g. fishing vessel, sailing vessel, merchant vessel (when possible) Types of feature at this include: Fish cages and fish traps - Fish farms - Oil and gas installations - Detection of lost containers - Detection of aircraft debris - Iceberg detection - Skiffs on beach Additional features are added regularly or upon request of users
Activity Detection	This product aims at identifying activities of interest detected in the satellite images, over a defined area at a given time. The product has a nominal delivery times of 30 minutes for SAR-based and 50 minutes for optical-based products and the following attributes are included: - Activity description - type of activity detected on an EO scene - Area - latitude/longitude coordinates

Value added products	Description
	• Time Stamp - date/time of acquisition • Confidence level of activity detection - quantitative measurement of the uncertainty associated with the identified activity, on a scale 1 to 100% • Associated vessels or features - attributes described in the vessel and feature product description. Types of activity include: • Fishing grounds monitoring • Fishing activity pattern • Vessels towing cages • Rendezvous at sea and transshipment operations • At-sea refuelling • Remote port and coastal monitoring • Detection of potential aggregation points for illegal embarkation • Detection of illegal discards • Hijacked ship • Skiffs/speed boats approaching vessel • Monitoring of activities/change detection along the coastline Additional activities are added regularly or upon request of users.
Met-Ocean products (SAR derived wind and wave)	This product entails the delivery of a package containing ocean surface wind and wave (swell) derived from SAR imagery. The attributes of these products are: • Wind speed - expressed in m/s • Wind direction - wind from direction • Wave height - sea surface swell wave significant height, expressed in m • Wave direction - sea surface swell wave direction

• Fusion products

Fusion products	Description
Vessel detection correlation	Vessel detections derived from SAR and optical images are correlated against vessel data, such as: • Automatic Identification System (AIS) reported positions from terrestrial and satellite AIS system data; • Long Range Identification and Tracking (LRIT) reported positions; • Vessel Monitoring System (VMS) data. This product provides an overview of which vessels are reporting and which are not reporting in a given area and contains two layers: • Vessel detections correlated with vessel reporting information • Vessel detections not correlated with vessel reporting information It should be noted that a user will only receive correlations of vessel reporting information for which that user has been granted the relevant access rights.

Fusion products	Description
Oil spill alert reports	This product is based on the Quasi Real Time (QRT)/Near Real Time (NRT) analysis of satellite images in order to detect possible oil spills on the sea surface. When a possible spill is detected within the alert area of a coastal state, an oil spill notification is sent to the relevant authorities. This report includes: • Complete details of the oil spills detected • Identification of polluters • Alert level based on user defined rules • Context maps overlaying electronic nautical charts with the possible spill position.

Full documentation characterizing the individual data elements for basic, value added and fusion products are available in the Earth Observation Data Centre (EODC) External Interface Control Document (EICD) version 2.0.0

V. Legal basis

Copernicus is a European Union Programme aimed at developing European information services based on satellite Earth Observation and in-situ (non-space) data. The program was established by Regulation (EU) No 377/2014 and is coordinated and managed by the European Commission. Copernicus provides vast amounts of global data from satellites and from ground-based, airborne and seaborne measurement systems are being used to provide information to help service providers, public authorities and other international organisations improve the quality of life for the citizens of Europe. The information services provided are freely and openly accessible to its users, with the exception of the Copernicus Security services.

VI. Scope and source of data

The CMS service offers users an extended geographical scope and enhanced range of high quality maritime information. Coverage can be provided in areas of European interest across the globe, with a variety of different resolutions and sensor types.

The following sources of data are used in CMS products:

- Earth Observation

Synthetic Aperture Radar (SAR)	Optical
Sentinel-1A/B L1B	Worldview-1/2/3
Radarsat-2	GeoEye
TerraSAR-X/Tandem-X	Pleiades 1A/1B
PAZ	SPOT-5/6/7
	Deimos-2
	EROS-B

- In-situ data used in the production, quality control and validation of basic and added value products
- Vessel reporting information

VII. Technical implementation

Scope of the sources of data is global. The provision of CMS relies on several different technical components:

- Satellite assets used to acquire images
- Ground stations used in the downlink and processing of the satellite data received
- High speed networks used in the delivery of information from ground station to EMSA.
- EMSA's Earth Observation Data Centre, where the products are received, ingested, further processed and enriched, and made available to users and other EMSA systems.

VIII. Conditions of Access

The CMS service provides support to interested Member State administrations and European bodies exercising functions in the maritime domain. On request, CMS can also provide support to relevant international organisations in consultation with and based on the approval of DG DEFIS and the European External Action Service (EEAS).

IX. Status of implementation

Products are already available to authorised users.

X. Dissemination channels

The information is made available through several channels:

- SafeSeaNet Ecosystem Graphical User Interface (SEG)
- System to system interfaces to EMSA's Earth Observation Data Centre
- Via alert reports and notifications

XI. Points of contact

Copernicus Maritime Surveillance (CMS) service: copernicus@emsa.europa.eu

EMSA's Maritime Support Services (MSS)

Tel: +351 211 209 415

Fax: +351 211 209 480

Email: MaritimeSupportServices@emsa.europa.eu

7. Meteorological and Oceanographic Data

Information on environmental and atmospheric conditions such as wind speed and direction, wave height and direction and wave period.

7.1 Dataset 7.1 Copernicus Marine Environment Monitoring Service

I. Data group

Meteorological and Oceanographic Data

II. Short description

The Copernicus Marine Environment Monitoring Service (CMEMS) provides regular and systematic reference information on the physical and biogeochemical state, variability and dynamics of the ocean and marine ecosystems for the global ocean and the European regional seas.

III. Agency responsible for dataset

EMSA

IV. Data elements

The following datasets are available:

Remote Sensing

- Chlorophyll-a concentration
 - Global
 - Baltic Sea
 - Black Sea
 - Mediterranean Sea
 - North Atlantic
 - Arctic Ocean
- Sea Surface Temperature:
 - Global
 - Baltic Sea
 - Black Sea
 - Mediterranean Sea
 - Atlantic NW Shelf
 - Arctic
- Sea Ice:
 - Baltic - Ice Concentration
 - Baltic - Ice Thickness
 - Arctic - Ice Concentration
 - Greenland - Ice Concentration
 - Antarctic - Ice Concentration
- Sea Surface Winds - Scatterometer:
 - Eastward Wind Component
 - Northward Wind Component
 - Wind Speed
 - Wind Direction
- Sea Surface Height:
 - Global
 - Black Sea
 - Mediterranean Sea
- Ocean Currents
 - Northward Meridional Velocity

- Eastward Zonal Velocity
 - Combined N-E Velocity
- Salinity:
 - Global

Model Forecast

- Sea Surface Temperature:
 - Global
- Ocean Currents:
 - Northward Meridional Velocity
 - Eastward Zonal Velocity
 - Combined N-E Velocity
- Sea Surface Height:
 - Global
- Significant Wave Height:
 - Global
 - Baltic Sea
 - Black Sea
 - Mediterranean Sea
 - North Atlantic
 - Arctic Ocean
 - Iberian Biscay Irish seas

V. Legal basis

Copernicus is the European Union's Earth Observation Programme, looking at our planet and its environment for the ultimate benefit of all European citizens. Regulation (EU) No 377/2014 establishing the Copernicus Programme stipulates that Copernicus services are made available and accessible to any citizen and any organisation around the world on a free, full and open access basis.

VI. Scope and source of data

CMEMS data contain daily and weekly remote sensing observations and hourly forecast ocean and marine ecosystem products for European regional seas and the global ocean in support of all maritime activities (safety, security, environment, fisheries, etc.).

VII. Technical implementation

The CMEMS information is provided through a WMS interface and is displayed as “Remote Sensing” and “Forecast model” raster data layers under the “Met-Ocean” layer of the SEG.

VIII. Conditions of Access

The products delivered by CMEMS are provided free of charge and are available to all users. Hence, CMEMS data is available to EU Member States’ authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users.

IX. Status of implementation

This dataset is already available to EU Member States’ authorities executing functions in the maritime domain, Ports, EMSA, EC and other EU bodies users.

X. Dissemination channels

The data is currently available in the SafeSeaNet Ecosystem Graphical User Interface (SEG) for the Member State and Institutional operations.

XI. Points of contact

EMSA's Maritime Support Services (MSS)

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Fax: +351 211 209 480

Email: MaritimeSupportServices@emsa.europa.eu

7.2 Dataset 7.2 European Marine Observation and Data Network

I. Data group

Metrological and Oceanographic Data

II. Short description

The European Marine Observation and Data Network (EMODnet) is a network of organisations supported by the EU's integrated maritime policy, observing the sea, processing the data according to international standards and making this information freely available as interoperable data layers and data products.

III. Agency responsible for dataset

EMSA

IV. Data elements

The following datasets are available:

In-situ Platforms:

- Argo Floats/Profilers
- Bathymetry GTS
- Drift Buoys
 - Positions
 - Tracks
- Ferrybox
- Gliders
- HF Radars
 - Positions
 - Areas
- Marine Mammals
- Mini-Loggers
- Moorings
- Profiling Moorings
- River Stations
- TESAC Messages
- Tide Gauges
- XBT/XCTD Profiles

Sea-state Parameters:

- Waves
- Water Temperature
- Water Salinity
- Currents
- Optical Properties
- Sea Level
- Atmospheric
- Water Conductivity
- Winds
- Underwater Noise

V. Legal basis

The European Marine Observation and Data Network (EMODnet) is financed by the European Union under Regulation (EU) No 508/2014 of the European Parliament and of the Council of 15 May 2014 on the European Maritime and Fisheries Fund.

VI. Scope and source of data

In-situ time series and datasets are made available, as recorded by fixed platforms (moorings, tide gauges, HF radars, etc.), moving platforms (ARGO, Lagrangian buoys, ferryboxes, etc.) and repeated observations (CTDs, etc.). The available themes are the temperature of the water column, the salinity of the water column, horizontal velocity of the water column, sea level and sea level trends, wave height and period, wind and atmospheric pressure, optical properties (e.g. light attenuation, back scattering, turbidity, etc.), underwater sound pressure level (acoustic pollution), river runoff, other biogeochemical data (e.g. chlorophyll, dissolved oxygen, etc.), sea-ice coverage.

VII. Technical implementation

The EMODnet information is provided through a WFS interface and is displayed “In-situ” data layers under the “Met-Ocean” layer of the SEG.

VIII. Conditions of Access

The products delivered by EMODnet are provided free of charge and are available to all users. Hence, EMODnet data is available to EU Member States’ authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users.

IX. Status of implementation

This dataset is already available to EU Member States’ authorities executing functions in the maritime domain, Ports, EMSA, EC and other EU bodies users.

X. Dissemination channels

The data is currently available in the SafeSeaNet Ecosystem Graphical User Interface (SEG) for the Member State and Institutional operations.

XI. Points of contact

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7.3 Dataset 7.3 Copernicus Atmospheric Monitoring Service

I. Data group

Meteorological and Oceanographic Data

II. Short description

The Copernicus Atmospheric Monitoring Service (CAMS) provides continuous data and information on atmospheric composition. The service describes the current situation, forecasts the situation a few days ahead, and analyses consistently retrospective data records for recent years for land and the global ocean.

III. Agency responsible for dataset

EMSA

IV. Data elements

The following datasets are available:

Model Forecast

- Sulphur Dioxide:
 - Total SO₂
 - Surface SO₂
- Nitrogen Dioxide:
 - Total NO₂
 - Surface NO₂
- Carbon Dioxide:
 - Total CO₂
 - Surface CO₂

V. Legal basis

Copernicus is the European Union's Earth Observation Programme, looking at our planet and its environment for the ultimate benefit of all European citizens. Regulation (EU) No 377/2014 establishing the Copernicus Programme stipulates that Copernicus services are made available and accessible to any citizen and any organisation around the world on a free, full and open access basis.

VI. Scope and source of data

CAMS data contain hourly forecast atmospheric [emission] products for the global ocean in support of all maritime activities (safety, security, environment, fisheries, etc.).

VII. Technical implementation

The CAMS information is provided through an WMS interface and is displayed as "Forecast model" raster data layers under the "Met-Ocean" layer of the SEG.

VIII. Conditions of Access

The products delivered by CAMS are provided free of charge and are available to all users. Hence, CAMS data is available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users.

IX. Status of implementation

This dataset is already available to EU Member States' authorities executing functions in the maritime domain, Ports, EMSA, EC and other EU bodies users.

X. Dissemination channels

The data is currently available in the SafeSeaNet Ecosystem Graphical User Interface (SEG) for the Member State and Institutional operations.

XI. Points of contact

EMSA's Maritime Support Services (MSS)

Tel: +351 211 209 415

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Email: MaritimeSupportServices@emsa.europa.eu

7.4 Dataset 7.4 European Organisation for the Exploitation of Meteorological Satellites

I. Data group

Metrological and Oceanographic Data

II. Short description

The European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT) is an intergovernmental organisation supplying weather and climate-related satellite data, images and products - 24 hours a day, 365 days a year - to the National Meteorological Services of European Member States in Europe, and other users worldwide. EUMETSAT provides real-time satellite based observations of Europe's weather and atmosphere composition.

III. Agency responsible for dataset

EMSA

IV. Data elements

The following datasets are available:

Remote Sensing:

- Weather/Atmospheric
 - Precipitation Estimate
 - Fog
 - Air Mass
 - Natural Colour RGB

V. Legal basis

EUMETSAT Member States adopted the Oslo Declaration at the 67th meeting of Council stating the data policy and the related on-line services are aimed at facilitating direct access to meteorological data and products on a non-discriminatory basis in compliance with relevant WMO resolutions, as well as national and international regulations. The declaration encourages further development of on-line services and expansion of graphical products made available to the public, while continuing licensing policies for the underlying digital data and products.

VI. Scope and source of data

EUMETSAT data contain real-time hourly observations of European weather and atmospheric composition in support of all maritime activities (safety, security, environment, fisheries, etc.).

VII. Technical implementation

The EUMETSAT information is provided through a WMS interface and is displayed as "Remote-Sensing" data layers under the "Met-Ocean" layer of the SEG.

VIII. Conditions of Access

The products delivered by EUMETSAT are provided free of charge and are available to all users. Hence, EUMETSAT data is available to EU Member States' authorities executing functions in the maritime domain, Ports, EMSA, EC and other EU bodies users. All EUMETSAT images are subject to EUMETSAT copyright. If you wish to re-use these images, EUMETSAT's copyright credit should be shown by displaying the words "copyright {year} EUMETSAT" (where {year} is the current year) on each of the images shown. The designations employed and the presentation of material on this service do not imply the expression of any opinion whatsoever on the part of EUMETSAT concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The boundaries and names shown and the designations used do not imply official endorsement or acceptance by EUMETSAT.

IX. Status of implementation

This dataset is already available to EU Member States' authorities executing functions in the maritime domain, ports, EMSA, EC and other EU bodies users.

X. Dissemination channels

The data is currently available in the SafeSeaNet Ecosystem Graphical User Interface (SEG) for the Member State and Institutional operations.

XI. Points of contact

EMSA's Maritime Support Services (MSS)

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Email: MaritimeSupportServices@emsa.europa.eu

7.5 Dataset 7.5 Frontex Meteorological data provided under EUROSUR Fusion Services

I. Data group

Metrological and Oceanographic Data

II. Short description

This service provides information about past, current and forecasted weather conditions, lighting strikes, weather radar images (from national weather services) and radar forecast up to 2 hours.

III. Agency responsible for dataset

Frontex

IV. Data elements

The following data is presented via dedicated graphical information layers and accessible directly in the Frontex systems available to all users:

a) Atmospheric - Observations for locations:

1. In-situ, past data from weather stations.

- Data is provided to the service provider by national weather services. The national weather services operate their station networks according to the standards of the World Organization for Meteorology (WMO).
- 3400 WMO-stations in the extent of the service (see section VI).
- 75% of stations with hourly report frequency, 25% of stations with 3-hourly report frequency.
- Data based on SYNOP reports (official WMO stations) and on METAR reports (provided from airport weather stations).

2. Weather forecast (7 days) for locations:

- 5170 locations: weather stations, supplemented by forecasts for 'virtual stations' in the area.
- Data bases on the service provider's location forecast system and considers local effects of the station's surroundings on the weather parameters.

The following table presents the available meteorological parameters for locations:

Data attribute	Unit	Sample value	Parameter description
Time	UTC	2019-11-25T13:00:00Z	Date and time
Name	text	S. Maria Di Leuca	Station name
ICAO	text	LIBY	ICAO (International Civil Aviation Organization) code of airport weather stations
Height	m	104	Height of the location of a station
Weather	text	Fair	General status of current weather
Air_temp	°C	13.8	Air temperature at 2 m
Dewpoint	°C	12.3	Temperature to which the air would have to cool in order to reach saturation
Humidity	%	91	Relative humidity
Wind_dir	degrees	108	Wind direction
Wind_speed	kts	6	Average wind speed over 10 minutes at a height of 10 metres
Wind_gust	kts	12	Highest 3 seconds duration wind speed at 10 metres

Data attribute	Unit	Sample value	Parameter description
CloudCover	octas	8	The fraction of the sky obscured by clouds
Pressure	hPa	1002.6	Atmospheric pressure at sea level
Visibility	Km	9.1	Horizontal visibility
Precip_1hr	Mm	0.3	Precipitation amount past 1 hour
Precip_6hr	Mm	1.5	Precipitation amount past 6 hours
Precip%	%	12	Precipitation probability past 6 hours > 0.2 mm
Snow_depth	M	0	The depth of the accumulated snow
Snow_1hr	mm	0	Amount of fresh snowfall past hour
Snow_6hr	mm	0	Amount of fresh snowfall past 6 hours
FZL	M	2323	Freezing level
Thunder%	%	4	Thunder probability

b) Atmospheric, area-covering model data and forecast:

Current, forecasted and past (7 days) atmospheric conditions based on *European Centre for Medium-Range Weather Forecasts* (ECMWF) weather models provided for the geographical extent described in section VI.

The ECMWF runs a sophisticated set of mathematical models of the global atmosphere which assimilates observations from ground weather stations, ships, radiosondes, satellites, weather radar, airplanes etc. into analysis of the current state of the atmosphere. Using the resulting analysis as a starting condition the centre calculates twice daily (initialized with the analysis of 00 UTC and 12 UTC) a forecast for up to 7 days ahead.

Data attribute	Unit	Description	Display
Air temperature 2m	°C	Temperature of the air a 2 meters above surface level	area and contours
Apparent temperature	°C	Perceived outdoor temperature, caused by the combined effects of air temperature, relative humidity and wind speed.	area and contours
Dew point 2m	°C	Temperature to which the air would have to cool (at constant pressure and constant water vapour content) in order to reach saturation.	area and contours
Ground temperature	°C	Temperature of the ground.	area and contours
Precipitation amount 3/6 -hourly	mm	The amount of precipitation over a period of 3/6 hours prior to the chosen time stamp.	area and contours
Precipitation probability	%	The chance that there will be precipitation at that time.	area and contours
Pressure mean sea level	hPa	The atmospheric pressure (the weight of the atmosphere) at sea level at a given location.	area and contours
Snow depth	m	The depth of the accumulated snow.	area and contours
Snowfall 3/6 -hourly	mm	The amount of fresh snow over	area and contours

Data attribute	Unit	Description	Display
		a period of 3/6 hours prior to the chosen time stamp.	
Total cloud cover	%	The fraction of the sky obscured by clouds when observed from a particular location.	area and contours
Visibility	km	The horizontal visibility.	area and contours + grid
Wind chill	°C	The perceived outdoor temperature, caused by the combined effects of air temperature and wind speed.	area and contours

c) Weather - Observations and Short Range Forecast

Additional weather phenomena visually presented as follows:

Data attribute	Description	Visualisation
Lightnings	Lightning strikes observed over the past 60 minutes. The attributes provide information on the type (Cloud to ground or Cloud to cloud) and the amplitude of a strike (strength). Observations available up to 3 days back with interval steps every 15 minutes (every update contains data over a period of 60 minutes).	Overlay
Precipitation and precipitation type	Ground weather radar reflectivity observations combined with other information to provide images showing precipitation type (rain, freezing rain, hail, sleet, snow) and its intensity. Short range forecast (2 hours) based on model also available.	Overlay
Cloud forecast	Model based cloud forecast	Overlay
Cloud cover satellite images: visible and infrared (IR)	Visible images represent the amount of sunlight being scattered back into space by the clouds, aerosols, atmospheric gases, and the earth's surface. Thicker clouds have a higher reflectivity (or albedo) and appear brighter than thinner clouds on a visible image.	Overlay
	Infrared satellite images are the measurements that are related to brightness temperature. Since temperature usually decreases with height, high level clouds are colder than low level clouds. Therefore, high level clouds appear brighter than low level clouds.	Overlay

d) Historical data

The online services described in point a) and b) provide data for a historic period of time up to 7 days. The weather radar and meteorological satellite services described in point c) provide data for a historic period of time up to 4 days (lightnings - 3 days).

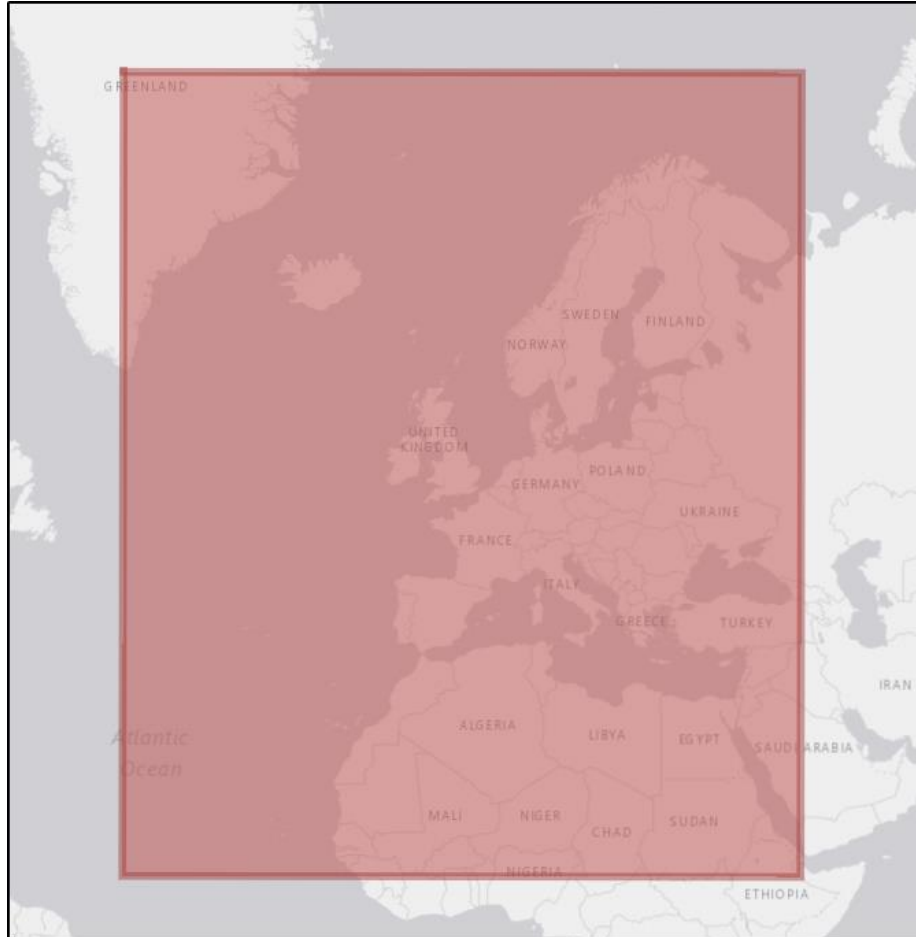
Additionally, atmospheric model and forecast data (mentioned in part b) can be requested for a historic period of time since January 2017. The data is available as polygon (area) and point (grid) GIS feature classes.

V. Legal basis

EBCG Regulation (EU) 2019/1896

VI. Scope and source of data:

The data is used for operational and mission planning as well as risk analysis purposes. It covers the entire Schengen Area and the adjacent third countries and open seas, as in the figure below:



The data is supplied by a commercial operator ingesting data from a variety of commercial and national in-situ sources. Satellite images come from Meteosat, GOES and MTSAT for visualisation purposes.

VII. Dissemination channels

Delivered via EUROSUR Fusion Services (EFS).

VIII. Technical implementation

The data is supplied via Open GIS Consortium (OGC) web services by the service provider and ingested into Frontex systems. From there it is provided to authorised users. The past model data (from the previous day) is supplied as GIS datasets and loaded into the Frontex database.

IX. Access rights

Access to online meteorological data is granted to EFS users.

The archive, model-based meteorological data can be delivered upon request to EFS Service Desk.

X. Status of implementation

Operational

XI. Points of contact

EUROSUR Fusion Services (EFS) Service Desk

Email: efs@frontex.europa.eu

7.6 Dataset 7.6 Frontex Oceanographic data

I. Data group

Meteorological and Oceanographic Data

II. Short description

This service provides information about past, current and forecasted oceanographic and maritime information (from national and EU oceanographic and maritime services).

III. Agency responsible for dataset

Frontex

IV. Data elements

The following data is presented via dedicated information layers and accessible directly in the systems available to all users:

- a) Oceanographic model data and forecast:

Current, forecasted and past (last 7 days) oceanographic conditions based on *European Centre for Medium-Range Weather Forecasts* (ECMWF) and *Nautical MeteoBase* (NMB) models provided for the geographical extent described in section VI.

Data attribute	Unit	Description	Display
Current	Dgs true North, speed in m/s	Contains the speed and direction of current. The arrow points to where the current is going to. The larger the arrow, the higher the speed.	arrows
Current speed	m/s	The horizontal movement of water. It is a combination of tidal water movement and oceanic water movement.	area and contours
Current direction	Dgs true North	The direction the current is going to.	grid
Sea surface temperature	°C	Water temperature of the sea surface.	area and contours + grid
Significant wave height	m	Mean wave height (trough to crest) of the highest third part of all waves.	area and contours + grid
Significant wave mean direction	Dgs true North	Mean direction of the total wave spectrum, the direction the waves are coming from.	grid
Swell	Dgs true North	The symbol shows a combination of swell height and the direction. The arrows point to where the waves are going to. The larger the arrow, the higher the swell.	arrows
Swell height	m	Swell consists of wind-generated waves that are not significantly	area and contours + grid

Data attribute	Unit	Description	Display
		affected by the local wind at that time. They have been generated elsewhere or some time ago.	
Swell period	s	The time required for two successive swell wave crests to pass a fixed point, or the time for a single swell wave crest to travel a distance equal to the length of the wave.	area and contours + grid
Swell direction	Dgs true North	Swell direction is the direction the swells are coming from.	grid
Visibility	nm	The horizontal visibility.	area and contours + grid
Wind	Dgs true North, speed in kts	Contains wind speed and wind direction. The symbol points to where the wind is going to. Each short barb stand for 5 knots, each long barb stands for 10 knots. A pennant means 50 knots.	barbs
Wind gusts	m/s	Highest 3 seconds duration wind speed at 10 metres.	area and contours + grid
Wind speed	m/s	Average wind speed over 10 minutes at a height of 10 metres.	area and contours
Wind wave height	m	Mean wave height (trough to crest) of the highest third of the wind waves. Wind waves are directly generated and affected by local winds.	area and contours
Wind wave period	s	The time required for two successive wind wave crests to pass a fixed point, or the time for a single wind wave crest to travel a distance equal to the length of the wave.	area and contours
Wind wave direction	Dgs true North	The direction the waves are coming from.	grid
Tidal location elevation	m	The height above (below if value is negative) the level in case there is no tide.	point locations
Tidal location depth	m	The depth of the seabed under the water level.	point locations

b) Historical data

The online services described in point a) provide data for a historic period of time up to 7 days.

Additionally, marine model and forecast data (except tidal locations) can be requested for a historic period of time since January 2017. The data is available as polygon (area) and point (grid) GIS feature classes.

V. Legal basis

EBCG Regulation (EU) 2019/1896

VI. Scope and source of data

The data is used for operational and mission planning as well as risk analysis purposes. It covers the entire Schengen Area and the adjacent third countries and open seas (compare the figure in chapter 7.5, section VI). The data is supplied by a commercial operator which combines data from a variety of commercial and national in-situ sources with meteorological models.

VII. Dissemination channels

Delivered via EUROSUR Fusion Services (EFS).

VIII. Technical implementation

The data is supplied via Open GIS Consortium (OGC) web services by the service provider and ingested into Frontex systems. From there it is provided to authorised users. The past model data (from the previous day) is supplied as GIS datasets and loaded into the Frontex database.

IX. Access rights

Access to online meteorological data is granted to EFS users.

The archive, model-based oceanographic data can be delivered upon request to EUROSUR Fusion Services (EFS) Service Desk.

X. Status of implementation

Operational.

XI. Points of contact

EUROSUR Fusion Services (EFS) Service Desk

Email: EFS@frontex.europa.eu

8. Assets

Data on the planned deployments, planning and current position of assets operated by the Agencies.

8.1 Dataset 8.1 Details

I. Data group

Assets

II. Short description

Details of assets, which could be e.g. an aircraft (manned and unmanned) or vessels - a set of information that gives the opportunity to identify asset involved in an operation in a unique way providing information about its technical capabilities. This information might not be available for classified operations.

III. Agency responsible for data set

The agency responsible for the deployed asset:

- EFCA
- EMSA
- Frontex

IV. Data elements

- Operational call sign
- Radio Call Sign
- Asset classification (aerial or maritime/ civil or military)
- Asset type
- Asset name
- Flag State
- Asset IMO
- Asset MMSI
- Asset characteristics in term of POB, endurance, patrolling speed, max speed, etc.
- Asset special equipment on board (such as cameras, radar (SAR modes) or satellite phone detection capabilities)
- Asset communication capabilities (such as satellite communication, radio link, real time video streaming capabilities, raw data transmission capabilities)

It has to be noted, that all deployment details might be classified and thus not available to the public.

V. Legal basis

- a) EFCA Regulation (EU) 2019/473
- b) EMSA Regulation (EU) 2016/1625
- c) EBCG Regulation (EU) 2019/1896

VI. Scope and source of data

This data allows to know which assets are available to the Agencies, giving the chance to all the stakeholders to identify an asset in a unique way. The data is provided by the supplier of the asset (commercial or national). This dataset shall allow fostering of use of services by other institutions in the framework multi-purpose and multi-user operations.

VII. Dissemination channels

- a) EFCA Coordination Centre (CC) and/or Virtual Coordination Centre (VCC)
- b) EMSA Integrated Maritime Services, EMSA RPAS Data Centre
- c) Frontex delivered via EUROSUR ecosystem

VIII. Technical implementation

- a) Data are provided by the MS for national assets and made available via EFCA dissemination channels.
- b) Datasets are provided by the suppliers and are available at EMSA. The information is made available via the EMSA dissemination channels
- c) Technical implementation varies from supplier to supplier. For national assets it can be shared from their national systems. National or commercial assets involved in Frontex coordinated operational activities or surveillance missions report directly to Frontex.

IX. Access rights

Public administrations from the EU Member States and EFTA/SAC, and EU Agencies can have access to this information, if the data sets are not classified by the owner of the operation. The access to the data is limited to Agencies and relevant participating MS authorities as identified by the requesting authority.

- a) EFCA will provide the information to authorities involved in the operation
- b) EMSA will provide the requesting administration with the ownership of the operation
- c) Frontex will have the ownership of the operation

X. Status of implementation

Operational

XI. Points of contact

- a) EFCA Coordination Centre (CC) and/or Virtual Coordination Centre (VCC)
Email: Operations@efca.europa.eu
- b) EMSA Maritime Support Service
Tel: +351211209415
Email: MaritimeSupportServices@emsa.europa.eu
RPAS service: rpas@emsa.europa.eu;
- c) EUROSUR Fusion Services (EFS) Service Desk
Email: EFS@frontex.europa.eu

8.2 Dataset 8.2 Deployment

I. Data group

Assets

II. Short description

Deployment of an assets, which could be e.g. an aircraft (manned and unmanned) or vessels - a set of information that gives the opportunity to identify where an asset involved in an operation is deployed. This information might not be available for classified operations.

III. Agency responsible for data set

The agency responsible for the deployed asset:

- a) EFCA
- b) EMSA
- c) Frontex

IV. Data elements

- Operational call sign
- Radio Call Sign
- Deployment Country
- Deployment area
- Closest relevant city to the deployment
- Deployment harbour/airport (with ICAO code)
- Description of operation

It has to be noted, that all deployment details might be classified and thus not available to the public.

V. Legal basis

- a) EFCA Regulation (EU) 2019/473
- b) EMSA Regulation (EU) 2016/1625
- c) EBCG Regulation (EU) 2019/1896

VI. Scope and source of data

This data will allow to know where an asset involved in a specific operation is deployed and where the service is provided by the supplier of the asset (commercial or national). This dataset shall allow fostering of use of services by other institutions in the framework multi-purpose and multi-user operations.

VII. Dissemination channels

- a) EFCA Coordination Centre (CC) and/or Virtual Coordination Centre (VCC)
- b) EMSA Integrated Maritime Services, EMSA RPAS Data Centre
- c) Frontex delivered via EUROSUR ecosystem

VIII. Technical implementation

- a) Data are provided by the MS for national assets and made available via EFCA dissemination channels.
- b) Datasets are provided by the suppliers and are available at EMSA. The information is made available via the EMSA dissemination channels.
- c) Technical implementation varies from supplier to supplier. For national assets it can be shared from their national systems. National or commercial assets involved in Frontex coordinated operational activities or surveillance missions report directly to Frontex.

IX. Access rights

Public administrations from the EU Member States and EFTA/SAC, and EU Agencies can have access to this information, if the data sets are not classified by the owner of the operation. The access to the data is limited to Agencies and relevant participating MS authorities as identified by the requesting authority.

- a) EFCA will provide the information to authorities involved in the operation
- b) EMSA will provide the requesting administration with the ownership of the operation
- c) FRONTEX will have the ownership of the operation

X. Status of implementation

Operational

XI. Points of contact

- a) EFCA Coordination Centre (CC) and/or Virtual Coordination Centre (VCC)
Email: Operations@efca.europa.eu
- b) EMSA Maritime Support Services
Tel: +351211209415
Email: MaritimeSupportServices@emsa.europa.eu
RPAS service: rpas@emsa.europa.eu;
- c) EUROSUR Fusion Services (EFS) Service Desk
Email: EFS@frontex.europa.eu

8.3 Dataset 8.3 Position, speed, course, etc.

I. Data group

Assets

II. Short description

Detailed information of the assets location, orientation and kinematic information.

III. Agency responsible for data set

The agency responsible for the deployed asset:

- a) EFCA
- b) EMSA
- c) Frontex

IV. Data elements

- Frontex
 - Position in Cartesian coordinates (x,y,z)
 - Orientation (roll, pitch, yaw)
 - Course in degree
 - Speed in knots
- EMSA
 - Position
 - Latitude (decimal degrees, WGS84)
 - Longitude (decimal degrees, WGS84)
 - Altitude (m)
 - Heading (decimal degrees)
 - Ground Speed (m/s)

It has to be noted that all deployment details might be classified and thus not available to the public.

V. Legal basis

- a) EFCA Regulation (EU) 2019/473
- b) EMSA Regulation (EU) 2016/1625
- c) EBCG Regulation (EU) 2019/1896

VI. Scope and source of data

- Frontex: This data supports near real time situational awareness by displaying asset attributes related to navigational information in mapping applications. The data comes directly from the assets navigational system and can either be transmitted from the navigational system or extracted from the electro-optical full motion video data stream if available.
- EMSA: This data supports near real time situational awareness and mission command & control by displaying asset attributes related to navigational information in mapping applications. The data is transmitted to the EMSA data centre from the RPAS navigational system, through a Local Ground Control Station. Data transmission latency is less than 10 s, update frequency is 1 Hz.

VII. Dissemination channels

- a) EFCA Coordination Centre (CC) and/or Virtual Coordination Centre (VCC)
- b) EMSA Integrated Maritime Services, EMSA RPAS Data Centre
- c) Frontex delivered via the EUROSUR ecosystem

VIII. Technical implementation

- Frontex: Motion Imagery Metadata (MIMD) Model according to the MISB metadata standard, which includes locations, orientations, and kinematics (velocity, acceleration, etc.) of platforms, gimbals, sensors, sensor elements, geospatial and other points. The locations and orientations are either

absolute references to a well-known frame of reference (e.g., WGS84) or relative references to other locations and orientations. Each location and orientation pairing define a “stage” that has the potential to be the frame of reference for another location and orientation. Linking stages together forms the Staging System. The Staging System then defines an ability to describe, in metadata, the physical make-up and configuration of a system and the time varying physical relationships of the system and its sub-system components. This metadata is then extracted and decoded to be visualised in Frontex systems and shared with authorised end users.

- EMSA: The data elements can be transmitted from the EMSA data centre by means of a REST web service, extracted from the metadata of a real time full motion video stream and also through OGC Web Services (CSW, WMS and WFS).

IX. Access rights

Public administrations from the EU Member States and EFTA/SAC, and EU Agencies can have access to this information, if the data sets are not classified by the owner of the operation. The access to the data is limited to Agencies and relevant participating MS authorities as identified by the requesting authority.

- a) EFCA will provide the information to authorities involved in the operation
- b) EMSA will provide the requesting administration with the ownership of the operation
- c) Frontex will have the ownership of the operation

X. Status of implementation

Operational

XI. Points of contact

- a) EFCA Coordination Centre (CC) and/or Virtual Coordination Centre (VCC)
Email: Operations@efca.europa.eu
- b) EMSA Maritime Support Services
Tel: +351211209415
Email: MaritimeSupportServices@emsa.europa.eu
RPAS service: rpas@emsa.europa.eu
- c) EUROSUR Fusion Services (EFS) Service Desk
Email: EFS@frontex.europa.eu

9. Data collected by aerial assets

Data collected by surface assets (vessel tracks, fixed radar).

9.1 Dataset 9.1 Video and images (optical and IR)

I. Data group

Data collected by aerial assets

II. Short description

Video and images provided by the EO systems installed on board of aerial assets. The images and pictures are transmitted in real time or sent with an undefined delay.

III. Agency responsible for data set

The Agency under whose mandate the data is being collected:

- a) EFCA
- b) Frontex
- c) EMSA

IV. Data elements

- Video/image source sensor in the visible and infrared channel
- Operational call sign
- Time in UTC
- Sensor latitude in deg. and dec.
- Sensor longitude deg. and dec.
- Sensor true altitude
- Sensor horizontal field of view deg. and dec.
- Sensor vertical field of view deg. and dec.
- Slant range in NM
- Platform heading angle by compass display
- Platform pitch angle deg. and dec.
- Platform roll angle deg. and dec.
- Frame centre latitude deg. and dec.
- Frame centre longitude deg. and dec.
- Frame centre elevation in ft.
- Screen corner latitude point 1 deg. and dec.
- Screen corner longitude point 1 deg. and dec.
- Screen corner latitude point 2 deg. and dec.
- Screen corner longitude point 2 deg. and dec.
- Screen corner latitude point 3 deg. and dec.
- Screen corner longitude point 3 deg. and dec.
- Screen corner latitude point 4 deg. and dec.
- Screen corner longitude point 4 deg. and dec.

The data elements are collected according international standards (STANAG 4069, MISB and KLV). The full datasets are described for EMSA aerial assets in the EMSA RPAS Interface Control Document.

V. Legal basis

- a) EFCA Regulation (EU) 2019/473
- b) EBCG Regulation (EU) 2019/1896
- c) EMSA Regulation (EU) 2016/1625

VI. Scope and source of data

This data allows acquisition of images coming from the different highly sensitive electro optical sensors fitted on aerial asset, with different technical and frequency spectrum capabilities: visible and (near/short/long)infra-red. The visible camera and most if the IR cameras allow zooming-in to the objects of interest. Infra-red cameras allow night time operations.

The data will be collected by the service provider owning or having the command and control on the asset and will be distributed to all the recipients or a specific list of them either from the service provider or by the relevant Agency.

VII. Dissemination channels

Delivered via:

- a) EFCA Coordination Centre (CC) and/or Virtual Coordination Centre (VCC)
- b) EUROSUR Fusion Services (EFS)
- c) EMSA RPAS Data Centre and the EMSA integrated maritime services

and service supplier airborne and ground station infrastructure.

VIII. Technical implementation

The technical implementation varies from supplier to supplier who are encouraged to implement on-board processing for further dissemination via RLOS or BRLOS datalink. If the radar track data is not correlated on-board the asset, the correlation takes place on ground within the Agencies fusion systems.

IX. Access rights

Public administrations from the EU Member States and EFTA/SAC states, and EU Agencies can request for RPAS services. Access to the data coming from the services is limited to Agencies and relevant participating MS authorities as identified by the requesting authority.

- a) EFCA will provide the information to authorities involved in the operation
- b) Frontex will have the ownership of the operation
- c) EMSA will provide the requesting administration with the ownership of the operation

X. Status of implementation

Operational

XI. Points of contact

- a) EFCA Coordination Centre (CC) and/or Virtual Coordination Centre (VCC)
Email: Operations@efca.europa.eu
- b) EUROSUR Fusion Services (EFS) Service Desk
Email: efs@frontex.europa.eu
- c) RPAS service: rpas@emsa.europa.eu;
EMSA Maritime Support Services
Tel: +351211209415,
Email: MaritimeSupportServices@emsa.europa.eu

9.2 Dataset 9.2 Radar images

I. Data group

Data collected by aerial assets

II. Short description

Surveillance radar images and ship object/track identification. The radar images could be transmitted in real time or sent with an undefined delay.

The track data coming from different radar detections. The tracks created by automatic target tracking and classification are processed on-board and can provide several extra information like course and speed, surface image and estimated mass (in case of radar with synthetic aperture radar capabilities), and estimated shape (in case of devices with inverse synthetic aperture radar capabilities). All the tracks information can be linked with the data received by on board AIS receiver so to identify the detection

Sea surface image (in case of radar with synthetic aperture radar image capabilities) provide extra information like oil spill detection and estimated mass of vessel objects.

III. Agency responsible for data set

The Agency under whose mandate the data is being collected:

- a) EFCA
- b) Frontex
- c) EMSA

IV. Data elements

The data elements can vary depending on the radar equipment used on-board the asset and the radar mode selected.

- Operational call sign
- Sensor set range of detection
- Time in UTC
- Sensor latitude in deg. and dec.
- Sensor longitude deg. and dec
- Target range from the sensor
- Target bearing from the sensor
- Target latitude in deg. and dec.
- Target longitude in deg. and dec.
- Target speed
- Target course
- Surface radar image
- Shape characteristics of the object

The full datasets are described for EMSA aerial assets in the EMSA RPAS Interface Control Document.

V. Legal basis

- a) EFCA Regulation (EU) 2019/473
- b) EBCG Regulation (EU) 2019/1896
- c) EMSA Regulation (EU) 2016/1625

VI. Scope and source of data

This data will allow to get information about vessel targets and sea surface detected by surveillance radar sensors and ideally classified either automatically (with information from AIS) or based on visual identification to complement the situational picture in a defined area and range around the asset.

The data will be collected by the service provider owning or having the command and control on the asset and will be distributed to all the recipients or a specific list of them either from the service provider or by the relevant Agency.

VII. Dissemination channels

Delivered via

- a) EFCA Coordination Centre (CC) and/or Virtual Coordination Centre (VCC)
- b) EUROSUR Fusion Services (EFS)
- c) EMSA RPAS Data Centre and the EMSA integrated maritime services

and service supplier airborne and ground station infrastructure.

VIII. Technical implementation

The technical implementation varies from supplier to supplier who are encouraged to implement on-board processing for further dissemination via RLOS or BRLOS datalink. If the radar track data is not correlated on-board the asset, the correlation takes place on ground within the Agencies fusion systems.

IX. Access rights

Public administrations from the EU Member States and EFTA/SAC states, and EU Agencies can request for RPAS services. Access to the data coming from the services is limited to Agencies and relevant participating MS authorities as identified by the requesting authority.

- a) EFCA will provide the information to authorities involved in the operation
- b) Frontex will have the ownership of the operation
- c) EMSA will provide the requesting administration with the ownership of the operation.

X. Status of implementation

Operational

XI. Points of contact

- a) EFCA Coordination Centre (CC) and/or Virtual Coordination Centre (VCC)
Email: Operations@efca.europa.eu
- b) EUROSUR Fusion Services (EFS) Service Desk
Email: efs@frontex.europa.eu
- c) RPAS service: rpas@emsa.europa.eu;
EMSA Maritime Support Services
Tel: +351211209415
Email: MaritimeSupportServices@emsa.europa.eu

9.3 Dataset 9.3 Radar derived vessel tracks

I. Data group

Data collected by aerial assets

II. Short description

Surveillance radar images and ship object/track identification. The radar images could be transmitted in real time or sent with an undefined delay.

The track data coming from different radar detections. The tracks created by automatic target tracking and classification are processed on-board and can provide several extra information like course and speed, surface image and estimated mass (in case of radar with synthetic aperture radar capabilities), and estimated shape (in case of devices with inverse synthetic aperture radar capabilities). All the tracks information can be linked with the data received by on board AIS receiver so to identify the detection

Sea surface image (in case of radar with synthetic aperture radar image capabilities) provide extra information like oil spill detection and estimated mass of vessel objects.

III. Agency responsible for data set

The Agency under whose mandate the data is being collected:

- a) EFCA
- b) Frontex
- c) EMSA

IV. Data elements

The data elements can vary depending on the radar equipment used on-board the asset and the radar mode selected.

- Operational call sign
- Sensor set range of detection
- Time in UTC
- Sensor latitude in deg. and dec.
- Sensor longitude deg. and dec
- Target range from the sensor
- Target bearing from the sensor
- Target latitude in deg. and dec.
- Target longitude in deg. and dec.
- Target speed
- Target course
- Surface radar image
- Shape characteristics of the object

The full datasets are described for EMSA aerial assets in the EMSA RPAS Interface Control Document.

V. Legal basis

- a) EFCA Regulation (EU) 2019/473
- b) EBCG Regulation (EU) 2019/1896
- c) EMSA Regulation (EU) 2016/1625

VI. Scope and source of data

This data will allow to get information about vessel targets and sea surface detected by surveillance radar sensors and ideally classified either automatically (with information from AIS) or based on visual identification to complement the situational picture in a defined area and range around the asset.

The data will be collected by the service provider owning or having the command and control on the asset and will be distributed to all the recipients or a specific list of them either from the service provider or by the relevant Agency.

VII. Dissemination channels

Delivered via

- a) EFCA Coordination Centre (CC) and/or Virtual Coordination Centre (VCC)
- b) EUROSUR Fusion Services
- c) EMSA RPAS Data Centre and the EMSA integrated maritime services

and service supplier airborne and ground station infrastructure.

VIII. Technical implementation

The technical implementation varies from supplier to supplier who are encouraged to implement on-board processing for further dissemination via RLOS or BRLOS datalink. If the radar track data is not correlated on-board the asset, the correlation takes place on ground within the Agencies fusion systems.

IX. Access rights

Public administrations from the EU Member States and EFTA/SAC states, and EU Agencies can request for RPAS services. Access to the data coming from the services is limited to Agencies and relevant participating MS authorities as identified by the requesting authority.

- a) EFCA will provide the information to authorities involved in the operation
- b) Frontex will have the ownership of the operation
- c) EMSA will provide the requesting administration with the ownership of the operation.

X. Status of implementation

Operational

XI. Points of contact

- a) EFCA Coordination Centre (CC) and/or Virtual Coordination Centre (VCC)
Email: Operations@efca.europa.eu
- b) EUROSUR Fusion Services (EFS) Service Desk
Email: efs@frontex.europa.eu
- c) RPAS service: rpas@emsa.europa.eu;
EMSA Maritime Support Services
Tel: +351211209415,
Email: MaritimeSupportServices@emsa.europa.eu

9.4 Dataset 9.4 AIS data

I. Data group

Data collected by aerial assets

II. Short description

AIS receivers on board aerial vehicles deployed under:

- a) EFCA tasked Aerial Surveillance
- b) EMSA RPAS services
- c) EUROSUR Fusion Services (EFS) - Frontex Surveillance Aircraft (FSA)

collect AIS data within detection range. This AIS data is processed on-board and/or on ground, merged with other sensor data and disseminated to EMSA and Frontex so to compile a coherent and up to date situational picture.

III. Agency responsible for data set

- a) EFCA
- b) EMSA
- c) Frontex

IV. Data elements

Data elements collected are according to NMEA 0183 standard. All AIS messages (1 to 27) are collected for both AIS types (A and B) where applicable.

For more information, please consult the datasheets available under datatype 2 *Vessel Positions*.

V. Legal basis

- a) EFCA Regulation (EU) 2019/473
- b) EMSA Regulation (EU) 2016/1625 Directive 2002/59/EC (Consolidated Version - 16/03/2011)
- c) EBCG Regulation (EU) 2019/1896

VI. Scope and source of data

This data allows to get information about vessels detected by AIS (so called collaborative vessels) and complement the situational picture in a defined area and range around the asset.

VII. Dissemination channels

Delivered via

- a) EFCA Coordination Centre (CC) and/or Virtual Coordination Centre (VCC)
- b) EMSA RPAS Data Centre and the EMSA integrated maritime services
- c) EUROSUR Fusion Services (EFS)

and service supplier airborne and ground station infrastructure.

VIII. Technical implementation

The technical implementation varies from supplier to supplier who are encouraged to implement on-board processing for further dissemination via RLOS or BRLOS datalink. If the AIS data is not correlated on-board the asset, the correlation takes place on ground within the Agencies fusion systems.

IX. Access rights

Public administrations from the EU Member States and EFTA/SAC states, and EU Agencies can request for RPAS services. Access to the data coming from the services is limited to Agencies and relevant participating MS authorities as identified by the requesting authority.

- a) EFCA will provide the information to authorities involved in the operation
- b) EMSA will provide the requesting administration with the ownership of the operation.
- c) Frontex will have the ownership of the operation

X. Status of implementation

Operational

XI. Points of contact

- a) EFCA Coordination Centre (CC) and/or Virtual Coordination Centre (VCC)
Email: Operations@efca.europa.eu
- b) RPAS service: rpas@emsa.europa.eu;
EMSA Maritime Support Services
Tel: +351211209415,
Email: MaritimeSupportServices@emsa.europa.eu
- c) EUROSUR Fusion Services (EFS) Service Desk
Email: efs@frontex.europa.eu

9.5 Dataset 9.5 Distress signals

I. Data group

Data collected by aerial assets

II. Short description

Distress receivers on board aerial vehicles deployed under

- a) EFCA tasked Aerial Surveillance
- b) EMSA RPAS services
- c) EUROSUR Fusion Services (EFS) - Frontex Surveillance Aircraft (FSA)

receive distress signal emitted by vessels or persons on distress on sea. data within detection range. The distress signals can stem from GMDSS devices or beacons of different frequencies. These distress signals will be immediately localised and forwarded to the appropriate MRCCs. The aerial assets will be available to support any emergency operations as requested by the MRCC, e.g. taking video and images of the theatre, staying on-site of the emergency.

III. Agency responsible for data set

- a) EFCA
- b) EMSA
- c) Frontex

IV. Data elements

The following distress alerts mechanisms are supported:

- EPIRB: EPIRB with 06 and 121.5 Mhz signals allow homing to itself being a significant aid to search and rescue activities.
- RARAR-Search and rescue transponder (SART): X-band radar signals allow homing to itself. It is expected that the RPAS maritime radar already can detect and interpret these radar pulses
- EPIRB-AIS, AIS Man Overboard (MOB), AIS-SART: An AIS device is a mobile equipment mounted on an EPIRB, MOB or SART, to assist homing to itself (i.e. life boats, life raft) by transmitting a text broadcast.

Additionally, AIS information of vessel in the vicinity of point of distress and video and image data of the theatre will be provided. Please see data sheets 10.1. Video and images (optical and IR) and 10.4 AIS data.

V. Legal basis

- a) EFCA Regulation (EU) 2019/473
- b) EMSA Regulation (EU) 2016/1625
- c) EBCG Regulation (EU) 2019/1896

VI. Scope and source of data

The Global Maritime Distress and Safety System (GMDSS) is a global network of emergency communications for ships comprising various different communication networks using both satellite and terrestrial radio services. The GMDSS system makes use of shipboard search and rescue devices, one of which is the AIS Search and Rescue Transmitter (AIS-SART), which, since 1 January 2010, can be used in lieu of a radar Search and Rescue Transponder (X-Band SART) on SOLAS ships.

VII. Dissemination channels

Distress information will be provided directly to the local MRCCs in the requested format. The aerial and video/image data will be delivered via

- a) EFCA will provide the information to any requesting authority involved in coastguard operations
- b) EMSA RPAS Data Centre and the EMSA integrated maritime services
- c) EUROSUR Fusion Services (EFS)

and service supplier airborne and ground station infrastructure.

VIII. Technical implementation

The technical implementation varies from supplier to supplier and all or selected data elements as described above will be received from the aerial asset and further disseminated via RLOS or BRLOS datalink to the ground systems for immediate alerting of the relevant MRCCs.

IX. Access rights

Public administrations from the EU Member States and EFTA/SAC coastal states, and EU Agencies can request for RPAS services, which also provide distress signal detection. Distress data will be automatically routed to the local MRCC. Access to the data coming from the services is limited to Agencies and relevant participating MS authorities as identified by the requesting authority.

- a) EFCA will provide the information to any requesting authority involved in coastguard operations
- b) EMSA will provide the requesting administration with the ownership of the operation.
- c) Frontex will have the ownership of the operation

X. Status of implementation

Operational

XI. Points of contact

- a) EFCA Coordination Centre (CC) and/or Virtual Coordination Centre (VCC)
Email: Operations@efca.europa.eu
- b) RPAS service: rpas@emsa.europa.eu;
EMSA Maritime Support Services
Tel: +351211209415
Email: MaritimeSupportServices@emsa.europa.eu
- c) EUROSUR Fusion Services (EFS) Service Desk
Email: efs@frontex.europa.eu

9.6 Dataset 9.6 Gas emission concentrations

I. Data group

Data collected by aerial assets

II. Short description

RPAS based measurements of ship source pollution (SO_x and NO_x) from vessels and deriving the sulphur content in the fuel burnt by the vessel under observation. Video provided by the on-board EO systems complement the operational return. The videos are transmitted in real time or sent with an undefined delay; the gas analysis will be provided in near real time within at least 30 min.

III. Agency responsible for data set

EMSA

IV. Data elements

- Gas concentration SO_x and NO_x
- Sulphur concentration in the fuel
- Confidence information
- Emission measurement report
- Video/image source sensor
- Operational call sign
- Time in UTC
- Sensor latitude in deg. and dec.
- Sensor longitude deg. and dec.
- Sensor true altitude
- Frame centre latitude deg. and dec.
- Frame centre longitude deg. and dec.

The data elements are collected, if possible, according international standards (STANAG 4069, MISB and KLV). The full datasets are described for EMSA aerial assets in the EMSA RPAS Interface Control Document.

V. Legal basis

EMSA Regulation (EU) 2016/1625

Directive (EU) 2016/802 on the reduction in the sulphur content of marine fuels

VI. Scope and source of data

This data allows to determine if vessels under observation are potentially violating given limits of sulphur content allowed to be in the fuel burnt by the vessel. For operational and evidence purposes different electro optical sensors in the visible and infra-red spectral range are fitted on aerial asset. The infra-red cameras allow night time operations.

The data will be collected by the service provider owning or having the command and control on the asset and will be distributed to all the recipients or a specific list of them by EMSA.

VII. Dissemination channels

Operational data delivered via the EMSA RPAS Data Centre. The emission monitoring results are also distributed via the EMSA THETIS-EU system for early alerting of MS.

VIII. Technical implementation

The operation will be performed with an remotely piloted aircraft capable to fly into the plume in order to take the concentration measurement of the trace gases The technical implementation varies from supplier to supplier. The flight data will be received via a RLOS datalink. The analysis of the measurements and the correlation of the data takes place on ground within the service provider ground system and the EMSA maritime information systems.

IX. Access rights

Public administrations from the EU Member States and EFTA coastal states, and EU Agencies can request for RPAS services. EMSA will provide the requesting administration with the ownership of the operation. Access to the data coming from the services is limited to Agencies and relevant participating MS authorities as identified by the requesting authority.

X. Status of implementation

Operational

XI. Points of contact

RPAS service: rpas@emsa.europa.eu;

EMSA Maritime Support Services

Tel: +351211209415

Email: MaritimeSupportServices@emsa.europa.eu

10. Open source intelligence

Data gathered from open sources (e.g. the internet).

10.1 Dataset 10.1 Frontex - open source intelligence

I. Data group

Open source intelligence

II. Short description

Frontex conducts media monitoring and open source intelligence of internet activities for the purpose of preventing illegal immigration or cross-border crime. Open source information on the external borders and on the pre-frontier area is supplied on a regular, reliable and cost-efficient basis as an essential part of Situational Awareness.

III. Agency responsible for data set

Frontex

IV. Data elements

Free text and unstructured data/information from worldwide open sources on the external borders and on the pre-frontier area with a focus on:

- Cross-border crime;
- Border control;
- Return;
- Illegal migration;
- Trafficking in human beings;
- Terrorism;
- Third country situation;

relevant to European Integrated Border Management.

V. Legal basis

Regulation (EU) 2019/1896, in line with Directive (EU) 2016/680 or Regulation (EU) 2016/679, as applicable.

VI. Scope and source of data

Open source intelligence covers the collection, processing and dissemination of any information openly available to and legally accessible online, either from primary or secondary sources. Currently around 3500 open sources are scanned 24/7 and queried every 10 minutes. In order to achieve optimised results keyword-based filters are used and real-time monitoring is provided.

VII. Dissemination channels

Frontex Media Monitoring products are disseminated via email to predetermined distribution lists and the Frontex-One-Stop-Shop (FOSS) online file repository.

VIII. Technical implementation

Frontex Media Monitor (FMM) - a Frontex adaptation of the EMM developed by the JRC is being used to scan the media sources according to the key words listed.

IX. Access rights

Frontex and relevant Member State staff.

X. Status of implementation

Operational

XI. Points of contact

Frontex Media Monitor

fmm@frontex.europa.eu

10.2 Dataset 10.2 EMSA Daily Newsletter

I. Data group

Open source intelligence

II. Short description

The EMSA Daily Newsletter contain concise, up-to-date information on accidents and incidents which happened in EU waters and on those of EU interest around the world.

III. Agency responsible for dataset

EMSA

IV. Data elements

Summarised information from worldwide sources with a focus on:

- loss of life;
- pollution;
- sinkings/capsizes;
- collisions;
- contacts (with land/infrastructure);
- fires/explosions, and;
- miscellaneous other types.

V. Legal basis

Regulation (EU) 1406/2002, as amended.

VI. Scope and source of data

The EMSA Daily Newsletter covers the collection, summarising and dissemination of up-to-date information from selected maritime information providers and many open sources. Some sources are based on Internet search using keyword-based filters.

The reports contain information on accidents and incidents which happened in EU waters and on those of EU interest around the world.

VII. Technical implementation:

The EMSA Daily Newsletter is distributed via email to predetermined distribution lists.

VIII. Access rights

EMSA and European Commission DGs.

IX. Status of implementation

Operational

X. Dissemination channels

The EMSA Daily Newsletter is disseminated via email to predetermined distribution lists.

XI. Points of contact

EMSA's Maritime Support Services (MSS)

Tel: +351 211 209 415

Fax: +351 211 209 480

Email: MaritimeSupportServices@emsa.europa.eu

Definitions and acronyms

Abbreviation	Definition
A	
AECGE	Annual European Coast Guard Event
AIS	Automatic Identification System
AOI	Area of Interest
ASP	Application Service Provider
ATA	Actual Time of Arrival
ATD	Actual Time of Departure
B	
BCSEA	Black and Caspian Sea
BFT	Bluefin Tuna
BIP	Border Inspection Post
BRLOS	Beyond Radio Line of Sight
C	
CAMS	Copernicus Atmospheric Monitoring Service
CBS	Copernicus Border Surveillance Service
CCD	Central Country Database
CEFACT	United Nations Centre for Trade Facilitation and Electronic Business
CFP	Common Fisheries Policy
CFR	Community Fleet Register
CGD	Central Geographical Database
CHD	Central Hazmat Database
CLD	Central Location Database
CLP	Regulation (EC) No 1272/2008 of the European Parliament and Council on classification, labelling and packaging of substances and mixtures.
CMEMS	Copernicus Marine Environment Monitoring Service
CMS	Copernicus Maritime Surveillance
CO	Course
COD	Central Organisation Database
COG	Course Over Ground
COSS	Committee on Safe Seas and the Prevention of Pollution from Ships
CSD	Central Ship Database
CSN	CleanSeaNet
CSO	Company Security Officer
CSP	Communication Service Provider
CTD	Conductivity/Temperature/Depth
D	
DA	Date
DDP	Data Distribution Plan
DEH	Data Exchange Highway
DGC	Dangerous Goods Classification
DG CLIMA	Directorate-General for Climate Action
DG DEFIS	Directorate-General for Defence Industry and Space
DG MOVE	Directorate-General for Mobility and Transport
DG NEAR	Directorate-General for European Neighbourhood Policy and Enlargement Negotiations
DG-MARE	Directorate-General for Maritime Affairs and Fisheries
DG-SANCO	Directorate-General for Health and Food Safety
DPG	Dangerous and Polluting Goods
DSC	Digital Selective Calling
DWT	Deadweight Tonnage
E	
EBCG	European Border and Coast Guard

Abbreviation	Definition
EC	European Commission
ECAS	European Commission Authentication Service
ECMWF	European Centre for Medium-Range Weather Forecasts
EEAS	European External Action Service
EEC	European Union Regulation
EEZ	Exclusive Economic Zone
EFCA	European Fisheries Control Agency
EFCA-ERS	EFCA Electronic recording and reporting system
EFS	EUROSUR Fusion Services
EFTA	European Free Trade Association
EICD	External Interface Control Document
EMODnet	European Marine Observation and Data Network
EmS	Emergency Preparedness and Response
EMSA	European Maritime Safety Agency
EO	Earth Observation
EODC	Earth Observation Data Centre
EPIRB	Emergency position-indicating radiobeacon station
Equasis	Electronic Quality Shipping Information System
ERS	Electronic Reporting System
ETA	Estimated Time of Arrival
ETD	Estimated Time of Departure
EU	European Union
EUMETSAT	European Organisation for the Exploitation of Meteorological Satellites
EUNAVFOR	European Union Naval Force
EUROSUR	European Border Surveillance System
EWS	Early Warning System
F	
FAL	Convention on Facilitation of International Maritime Traffic
FAO	The Food and Agriculture Organization of the United Nation
FLUX	Fisheries Language for Universal Exchange
FMC	Fishery Monitoring Centre
FMM	Frontex Media Monitor
FOSS	Frontex-One-Stop-Shop
Frontex	European Border and Coast Guard Agency
FS	Flag State
FSA	Frontex Surveillance Aircraft
FTP	File Transfer Protocol
G	
GESAMP	Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
GIS	Geographical Information System
GISIS	Global Integrated Shipping Information System
GMDSS	Global Maritime Distress and Safety System
GNSS	Global Navigation Satellite System
GPS	Global Positioning System
GT	Gross Tonnage
GTS	Gravel lag with thin sand
H	
Hazmat	Hazardous Materials
HF	High Frequency
HLSG	High-Level Steering Group
HNS	Hazardous and Noxious Substances
hPa	Atmospheric pressure at sea level
HRA	High-Risk Area

Abbreviation	Definition
HTTP	Hypertext Transfer Protocol
I	
IBC	The International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk
ICAO	International Civil Aviation Organization
ICCAT	International Commission for the Conservation of Atlantic Tunas
ICES	International Council for the Exploration of the Sea
IFCD	Interface and Functionalities Control Document
IGC	The International Code of the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk
IHS	Information Handling Services
ILO	International Labour Organization
IMDatE	Integrated Maritime Data Environment
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organisation
IMS	Integrated Maritime Services
IMSDC	International Maritime Solid Bulk Cargoes
INF	International Code for the Safe Carriage of Packaged Irradiated Nuclear Fuel, Plutonium and High-Level Radioactive Wastes on board Ships
iOS	iPhone Operating System
IR	Infrared
IR	Internal Number
IRTC	International Recommended Transit Corridor
ISM	International Safety Management
ISO	International Organization for Standardization
ISPS	International Ship and Port Facility Security Code
ISSC	International Ship Security Certificate
ISSCFV	International Standard Statistical Classification of Fishery Vessels
IUU	Illegal, unreported and unregulated fishing
J	
JADE	JDP Application Database
JDP	Joint Deployment Plans
JORA	Joint Operations Reporting Application
JRC	Joint Research Centre
K	
KLV	Key-Length-Value
Kts	Knots
kW	Kilowatts
L	
LA	Latitude
LL	Lloyd's List
LO	Longitude
LOA	Length Overall
LOCODE	United Nations Code for Trade and Transport Locations
LRIT	Long Range Identification and Tracking
LRIT CDC	LRIT Collaborative Data Centre
LRIT EUDC	LRIT European Union Data Centre
LRIT IDE	LRIT International Data Exchange
M	
MAOC-N	Maritime Analysis and Operations Centre - Narcotics
MAR-CIS	Marine Chemical Information Sheets
MARPOL	International Convention for the Prevention of Pollution from Ships
MARSEC	Maritime Security
MAS	Multipurpose Aerial Surveillance

Abbreviation	Definition
MCR	Maximum Continuous Rating
MedMoU	Mediterranean Memorandum of Understanding on Port State Control
MF	Medium Frequency
Mhz	Megahertz
MISB	Motion Imagery Standards Board
MMSI	Maritime Mobile Service Identity
MOB	Man Overboard
MODU	Mobile offshore drilling units
MoU	Memorandum of Understanding
MRCC	Maritime Rescue Coordination Centre
MRS	Mandatory Reporting System
MRV	Monitoring, reporting and verification
MS	Member State
MSCHOA	Maritime Security Centre - Horn of Africa
MSS	Maritime Support Services
N	
NA	Vessel Name
NAF	North Atlantic Format
NCA	National Competent Authority
NEAFC	North East Atlantic Fisheries Commission
NM	Nautical Miles
NMB	Nautical MeteoBase
NMEA	National Marine Electronics Association
NRT	Near Real Time
NSW	National Single Window
O	
°C	Degrees Celsius
OGC	Open Geospatial Consortium
OJ	Official Journal
OLA	Operational Level Agreement
OSPAR	The Convention for the Protection of the Marine Environment of the North-East Atlantic
P	
P & I	Protection and indemnity insurance
POB	Persons on Board
POLREP	Pollution Report
PRF	Port Reception Facilities
PSC	Port State Control
PSSA	Particularly Sensitive Sea Area
Q	
QRT	Quasi Real Time
R	
RARAR	Radar Transmitter
RC	Radio Callsign
REST	Representational state transfer
RFMO	Regional Fisheries Management Organisations
RGB	Red Green Blue
RLOS	Radio Line of Sight
RO	EU Flag States
RoRo	Roll-on Roll-off
ROT	Rate of Turn
RPAS	Remotely Piloted Aircraft Systems
RPM	Revolutions Per Minute
S	
S2S	System to System

Abbreviation	Definition
SAC	Schengen Associate Country
SAR	Search and Rescue
SAR	Synthetic Aperture Radar
SART	Search and Rescue Transponder
SAT-AIS	Satellite Automatic Identification System
SEG	SafeSeaNet Ecosystem Graphical User Interface
SITREP	Incident Report
SLA	Service Level Agreement
SOAP	Simple Object Access Protocol
SOG	Speed Over Ground
SOLAS	International Convention for the Safety of Life at Sea
SP	Speed
SQL	Structured Query Language
SSN	SafeSeaNet
STANAG	Standardization Agreement
STAR	Ship Tracking, Awareness and Reporting
STMID	Shore-based Traffic Monitoring Infrastructure Database
SYNOP	Surface synoptic observations
T	
T-AIS	Terrestrial Automatic Identification System
TESAC	Temperature, salinity and current
TEU	Twenty-foot equivalent unit
TI	Time
TRACECA	Transport Corridor Europe-Caucasus-Asia
TSC1	Technical Subcommittee 1
TWA	Tripartite Working Arrangement
U	
UKMTO	United Kingdom Maritime Trade Operations
UN	United Nations
UNDG	United Nations Dangerous Goods Identifier
UNECE	United Nations Economic Commission for Europe
URL	Uniform Resource Locator
USA	United States of America
UTC	Coordinated Universal Time
UWI	User Web Interface
V	
VCC	Virtual Coordination Centre
VHF	Very High Frequency
VMS	Vessel Monitoring System
VTMIS	Vessel Traffic Management Information System
VTS	Vessel Traffic Service
W	
WFS	Web Feature Service
WGS	World Geodetic System
WMO	World Meteorological Organization
WMS	Web Map Service
X	
XBT	Expendable Bathythermograph
XCTD	Expendable Conductivity/Temperature/Depth
XML	Extensible Markup Language

