

Annex 1

Amended MRS business rules

Rule 1

Messaging framework

The main pillars of the improved MRS framework are as follows:

a. Ship notification:

The amended Ship notification shall be made mandatory in order to improve the current notification process.

b. Ship request mechanism

The existing ship requests shall be amended to allow users requesting/ receiving MRS or AIS information (see BR 6).

c. Ship response mechanism

The existing ship responses shall be amended to allow data providers sending MRS details in XML. Those MSs which are not MRS data providers can implement the response to retrieve MRS information on a voluntary basis. Following a request for MRS information, the data provider shall respond via XML. The Central SSN web interface can be used as a backup solution in case of problems in the national systems which do not allow responses in accordance with the IFCD requirements (Ch.4).

Rule 2

Scope

Member States shall report to SSN MRS notifications for all ships (with IMO number and/or MMSI) to which their MRSs apply (as per the requirements of MSC Circulars).

Rule 3

Ship identification

The notification shall include the following:

a. The IMO number (which shall be considered as the "primary key" if available).

b. The MMSI number (if the ship does not have an IMO number).

On a voluntary basis:

c. The ship name

d. The call sign

The exchange of information through SafeSeaNet shall not be possible for ships which do not have an IMO or MMSI number.

Rule 4

Information to be exchanged via the SSN central system.

There is a minimum data set required by Annex I(4) of the VTMIS Directive that is mandatory for MRS data exchange via SSN.

The existing message structure shall be amended as follows in order to improve the operational value of the notification and to resolve the issues identified in paragraph 2:

a. Including the following additional field:

- MRS identification (Mandatory)

The specific MRS shall be quoted in MRS notifications, thus allowing users to identify the MRS and to distinguish between the different systems (e.g. Spain is involved in 4 MRSs: GIBREP, FINREP, CANREP and WETREP). The correct individual system shall be mentioned when notifying MRS messages to SSN.

- CST (Optional)

This additional information aims to support the operational needs of MRS data requestors. The notation of the CST responsible for receiving ship-to-shore MRS reports provides data requestors with meaningful information relating to the MRS data response, especially in cases where MRSs are operated by several CSTs (e.g. 2 French CSTs can receive ship-to-shore WETREP reports, while 4 Italian CSTs can receive ADRIREP reports).

- Report type (Optional)

Each MRS has its own specific reporting rules, and reports are requested subject to specific conditions (e.g. when entering or leaving an MRS, changing the destination, crossing a reporting line, entering a port, etc.). It is proposed that a more specific description should be included in the "message type" (e.g. Sailing plan, Deviation report, etc.) in order to improve the understanding when exchanging information via SSN, in particular for those MRSs requiring multiple reporting (e.g. ADRIREP, WETREP etc.).

- A dedicated field to report other relevant information (Optional)

A free text field named "any other information" is proposed, mainly in order to support the reporting of specific WETREP information (e.g. information on oil cargo types, quantity, grades and density under designator "P"). In addition, this field can be used to provide additional cargo-related information that is considered as essential by the data provider. The "MRS guidelines" will provide clarification on the use of this field.

b. Moving two attributes from the detailed part of the message to the notification part:

- "ReportingDateTime": This amendment will ensure that the system is capable of retrieving the latest MRS message, based on the actual ship reporting time, instead of on the "SentAt" time to SSN (this change is proposed because the time when the ship-to-shore notification is logged and the time when the information is notified to SSN could not correspond).

- **"AnyDG"**: Currently, the presence of Hazmat-related information can be retrieved only upon request as it is only available in the MRS response. The inclusion of this attribute (possible values: "yes" or "no") in the notification is proposed to improve the operational usability of MRS-related information. This will allow the central SSN system to be immediately aware of the presence on board of any dangerous goods without requesting for details. One of the benefits is presented within the query b) in the BR 6.

The business data elements which would be exchanged via SSN are shown in Annex 2.

Rule 5

Provision of MRS notifications to SSN

The MRS messaging frequency to SSN will be described in the "MRS guidelines".

Rule 6

Request for MRS information¹ through SSN

MRS information can be retrieved via specific queries, such as:

a. Last MRS information for a selected vessel.

The purpose of this query is to retrieve the latest MRS information (depending on the attribute "ReportingDateTime") for a specific ship and, optionally, for a specific MRS. Its implementation in the national systems is on a voluntary basis but the implementation of the mechanism for providing a response (SSN2MS_Ship_Details_Req.xml and MS2SSN_Ship_Details_Res.xml) is mandatory for MRS providers (as the details are provided in XML format).

b. List of MRS information for a specific MRS.

The aim of this query is to provide a list of MRS notifications within a limited defined timeframe, (e.g. 24h). This search can be performed within the last 60 days. As an example, the result can be the list of ships crossing a MRS during 24h 15 days ago.

Data providers will make available the MRS details of the latest reported MRS for each MRS they manage in accordance with the IFCD requirements (two months).

The central SSN system could also provide a specific functionality for MRS data distribution (e.g. using a push mechanism when the ship enters a polygon defined by the NCA, or other mechanisms) if so decided.

Rule 7

MRS data exchange format

The following shall be considered:

- Details should be made available by the data provider via XML.

¹ MRS information is defined in accordance with the Annex 1.4 VTIMS Directive

- The URL for the cargo manifest is proposed to be removed. Information on cargo can be provided through the attribute "Cargo Type" (free text).
- MSs will use the Central SSN web interface in case of problems in the national systems which do not allow responses in line with the requirements established in the IFCD (see Rule 1).
- The contact details (within the "MRSCargoInformation" element) of the response can be used to support the provision of the designator "T" (address for the communication of cargo information, as appropriate) as requested by the VTMISS Directive

Rule 8

MRS access rights definition

The following criteria are applied.

a. Data providers:

- MSs can submit MRS notifications to SSN relating to the MRS(s) they manage (e.g. Poland is entitled to submit GDANREP notifications, but not WETREP).

b. Data requestors:

- MRS information should be made available to all NCAs.
- Port users (POR) can only retrieve MRS information for ships that are inbound to their ports.
- All the other users may access MRS information subject to permission from the NCA.

Rule 9

Regional cooperation

The new MRS protocol should support the introduction of specific reporting requirements proposed via regional cooperation and based on a dedicated request from MSs. In this respect, the XML protocol can be customized for Countries involved in such cooperation. An assessment shall be carried out on the technical feasibility of this requirement. The central SSN system can facilitate this exchange, e.g. the mandatory dataset, as defined by the Annex 1.4, can be available for all MSs, while the additional information, as per the regional agreement, can be exchanged only between the voluntary countries.

Rule 10

Confidentiality of MRS information

Designator "T" (Address for the communication of cargo information) might involve personal data. The protection of personal data at national level shall be in line with both the national legislation for data protection and with Directive 95/46/EC. The protection of personal data at central level shall be in line with Regulation (EC) No 45/2001 on protection of data by the Community Institutions and bodies.

Designator "P" includes a description of the cargo and, if dangerous goods are present on board, the quantity and IMO class. This information requires the same restriction of access rights as Hazmat (commercially sensitive).

Annex 2

MRS business data elements

The table below presents the high-level description of the MRS-related business data considered in the proposed improvement. The new attributes are in red and marked with (*). The table also points out the information to be provided in the MRS notification or in the detailed part.

Designators from VTMISS Directive	Directive's definition	Business data for the amended MRS framework	Notes	Notification (N) Detailed part (D)
----	----	MRS identification (e.g. ADRIREP, COPREP...)*		N
----	----	CST Identification*		N
		Report type*	Ship-to-shore notification report which is referred to (position report, sailing plan, final report etc...)	N
A	Ship identification (name, call sign, IMO identification number or MMSI number)	IMO number		N
		MMSI		
		Call sign		
		Ship name		
		Flag		
B	Date and time	Date and time of event	To be provided in the notification instead of in the detail part	N
C or D	Position in latitude and longitude or true bearing and distance in nautical miles from a clearly identified landmark	Latitude		N
		Longitude		
E	Course	COG		D
F	Speed	SOG		D
I	Port destination and estimated time of arrival	Port of call		N
		ETA Port of call		
P	Cargo and, if dangerous goods present on board, quantity and IMO class	Cargo type	The indication about the presence of DG on board (Yes/No) will be provided in the notification.	D
		IMO Class(es)		
		DG quantity		

Designators from VTMISS Directive	Directive's definition	Business data for the amended MRS framework	Notes	Notification (N) Detailed part (D)
T	Address for the communication of cargo information,	LastName		D
		FirstName		
		LoCode		
		Phone		
		Fax		
		Email		
W	total number of persons on board	Total number of persons on board		N
X	Miscellaneous: - characteristics and estimated quantity of bunker fuel, for ships of more than 1 000 gross tonnage, - navigational status.	Miscellaneous: - Bunker characteristics (ships >1000 GT)		D
		Miscellaneous: - Bunker quantity (ships >1000 GT)		D
		Miscellaneous: - Navigational status		D
----	----	Any other information (AOI)*	Specific field to support the WETREP reporting or other cargo related information	D

Annex 3

Technical proposal for the ship position data exchange via SSN

This annex describes the structure as well as the relevant business rules for the following messages. The definition of the relevant attributes is also included.

- **MS2SSN_Ship_Not.xml**
This message is sent by a MS (data provider) to SSN in order to notify about the vessel's position and voyage information. The ship notification can be originated by a MRS report or AIS signal.
- **MS2SSN_Ship_Details_Req.xml**
This message is sent by a MS (data requester) to SSN in order to request for Ship notification details.
Such XML request and its corresponding XML response (SSN2MS_Ship_Details_Res.xml) can be implemented by MSs on a voluntary basis.
- **SSN2MS_Ship_Details_Req.xml**
This message is sent by SSN to the MS owning the Ship notification details (data provider). The message is used by SSN when receiving a MS2SSN_Ship_Details_Req.xml message from a data requester.
- **MS2SSN_Ship_Details_Res.xml**
This message is sent by the MS owning the notification details (data provider) to SSN in answer to its request for notification details.
- **SSN2MS_Ship_Details_Res.xml**
This message is the response sent by SSN to a MS (data requester) requesting ship notification details depending on the selected parameters.
Such XML response and its corresponding XML request (MS2SSN_Ship_Details_Req.xml) can be implemented by MSs on a voluntary basis.
- **MS2SSN_Ship_List_Req.xml**
This message is sent by a MS (data requester) to SSN in order to request a list of MRS notifications for a selected MRS within a specific timeframe (no details are provided).
- **SSN2MS_Ship_List_Res.xml**
This message is the response sent by SSN to a MS (data requester) requesting a list of MRS notifications.
Such XML response and its corresponding XML request (MS2SSN_Ship_Details_Req.xml) can be implemented by MSs on a voluntary basis.

Table of content

1.	MS2SSN_Ship_Not.xml Structure	9
2.	MS2SSN_Ship_Not.xml Business rules	10
3.	MS2SSN_Ship_Details_Req.xml Structure	13
4.	MS2SSN_Ship_Details_Req.xml Business rules	14
5.	SSN2MS_Ship_Details_Req.xml Structure	17
6.	SSN2MS_Ship_Details_Req.xml Business rules	18
7.	MS2SSN_Ship_Details_Res.xml Structure	19
8.	MS2SSN_Ship_Details_Res.xml Business rules	21
9.	SSN2MS_Ship_Details_Res.xml Structure	25
10.	SSN2MS_Ship_Details_Res.xml Business rules	26
11.	MS2SSN_Ship_List_Req.xml Structure	27
12.	MS2SSN_Ship_List_Req.xml Business rules	28
13.	SSN2MS_Ship_List_Res.xml Structure	30
14.	SSN2MS_Ship_List_Res.xml Business rules	31
15.	Attributes definition - Amendment to the Annex "A" in the XML RG 2.07	33

1. MS2SSN_Ship_Not.xml Structure

Elements	Attributes	Occ
Header		1
	Version	1
	TestId	0-1
	MSRefId	1
	SentAt	1
	From	1
	To	1
Body		1
	MRSNotification	0-1
	MRSInformation	1
	MRSIdentification	1
	CSTIdentification	0-1
	ReportType	0-1
	MRSVesselIdentification	1
	IMONumber	0-1
	MMSINumber	0-1
	CallSign	0-1
	ShipName	0-1
	MRSVoyageInformation	1
	NextPortOfCall	1
	ETA	0-1
	TotalPersonsOnBoard	1
	AnyDG	1
	MRSShipPosition	1
	Longitude	1
	Latitude	1
	ReportingDateAndTime	1
	AISNotification	0-1
	AISVesselIdentification	1
	IMONumber	0-1
	MMSINumber	0-1
	CallSign	0-1
	ShipName	0-1
	AISVoyageInformation	1
NextPortOfCall	1	
ETA	0-1	
AISShipPosition	1	
Longitude	1	
Latitude	1	
Timestamp	1	

2. MS2SSN_Ship_Not.xml Business rules

No.	General rules applicable to the MS2SSN_Ship_Not.xml message
1	The data provider is allowed to send notification only for MRS under its responsibility (e.g. a MS not managing WETREP shall be prevented to send such a notification) unless specific agreement between Countries are put in place .See table "A" for the access right policy. Lists of "MRS", "CST" and "Report type" are maintained by EMSA
2	Details for both MRS and AIS notification can be provided only via XML).

The following table describes the business rules applied to the message. The detailed definition of the attributes is included in Annex "A".

Item	Occ	Description
Header	1	
Version	1	
TestId	0-1	
MSRefId	1	The MSRefId must be unique
SentAt	1	Format "YYYY-MM-DDThh:mm:ssTZD" Where TZD = time zone designator (Z or +hh:mm or -hh:mm).
From	1	
To	1	
Body	1	
MRSNotification	0-1	MRSNotification element node. Not allowed if AISNotification specified
...		▪
AISNotification	0-1	AISNotification element node. Not allowed if MRSNotification specified
...		▪

MRSNotification element

Item	Occ	Description
MRSNotification	0-1	Not allowed if AISNotification specified
MRSInformation	1	
MRSIdentification	1	The Central SSN will validate the content of the string. The message will be accepted only if the text string value complies with the list of codes for MRSIdentification.
CSTIdentification	0-1	The Central SSN will validate the content of the string. The message will be accepted by SSN even in case the text string value does not comply with the list of codes for CSTIdentification . In such a case a warning message is appended in the StatusMessage in the SSN_Receipt.xml.
ReportType	0-1	The Central SSN will validate the content of the string. The message will be accepted by SSN even in case the text string value does not comply with the list of codes for ReportType. In such a case a warning message is appended in the StatusMessage in the SSN_Receipt.xml.
MRSVesselIdentification	1	The message identifier attributes (IMO number, MMSI, Call Sign, ship name) have to be checked against a reference ship database.

IMONumber	0-1	Mandatory if MMSINumber not given. It has to be checked if not existing in the reference database.
MMSINumber	0-1	Mandatory if IMONumber not given. It has to be checked if not existing in the reference database.
CallSign	0-1	
ShipName	0-1	
MRSVoyageInformation	1	
NextPortOfCall	1	Location code of next port of call. It can be any LOCODE listed in the UNECE LOCODE list or any LOCODE listed in the specific SSN locode list.
ETA	0-1	Format “YYYY-MM-DDThh:mm:ssTZD” Where TZD = time zone designator (Z or +hh:mm or -hh:mm). Date and time of the estimated time of arrival at next port of call. Only optional if vessel's destination (NextPortOfCall) is a waypoint, but mandatory for destinations inside EU waters.
TotalPersonsOnBoard	1	99999 if actually unknown.
AnyDG	1	It is referred to any dangerous / polluting goods on board the ship. Possible values: “Y” or “N”
MRSShipPosition	1	
Longitude		This corresponds to the given position at the time of reporting
Latitude	1	This corresponds to the given position at the time of reporting
ReportingDateAndTime	1	Format “YYYY-MM-DDThh:mm:ssTZD” Where TZD = time zone designator (Z or +hh:mm or -hh:mm). Date and Time of MRS reporting. This corresponds to the MRS position time of reporting.

AISNotification element

Item	Occ	Description
<i>AISNotification</i>	0-1	Not allowed if MRSNotification specified
<i>AISVesselIdentification</i>	1	No checking rules to be applied in the AIS notification to keep the original information and no reject messages.
IMONumber	0-1	Mandatory if MMSINumber not given.
MMSINumber	0-1	Mandatory if IMONumber not given.
CallSign	0-1	
ShipName	0-1	
AISVoyageInformation	1	
NextPortOfCall	1	Location code of next port of call. May be “ZZUKN” if unknown. Considering the actual situation with the vast majority of the AIS messages include the actual name and not the Locode described in many different ways, the SSN Group decided not to reject notifications containing more than 5 characters in this attribute. Member States requesting through the web will receive the original content of the attribute. Member States when requesting through the XML these messages will receive ZZUKN.

ETA	0-1	<p>Format “YYYY-MM-DDThh:mm:ssTZD” Where TZD = time zone designator (Z or +hh:mm or -hh:mm).</p> <p>Date and time of the estimated time of arrival at next port of call. May only be optional if NextPortOfCall attribute value is unknown. The national SSN system should convert the AIS date format (MMDDHHMM) into the ISO format. As an example it could be done the following way:</p> <ul style="list-style-type: none"> - SS should be 00 - YYYY should be the year the message was sent provided the day/month are greater than the day/month of the timestamp. Otherwise it will be YYYY+1. - Default values are month MM = 0, day DD = 0, hour HH = 24, minutes MM = 60 are not compatible with ISO standards <p>Proposal:</p> <ul style="list-style-type: none"> - If MM or DD has default value, ETA shouldn't be provided - If HH or MM has default value, for the ETA the following dummy has to be employed: 23:59:59.
AISShipPosition	1	
Longitude	1	
Latitude	1	
Timestamp	1	<p>Format “YYYY-MM-DDThh:mm:ssTZD” where TZD = time zone designator (Z or +hh:mm or -hh:mm). Date and time of the AIS ship position reporting.</p>

Table "A" - Access rights for MRS data providers as per MSC circulars (*).

ID	MRS	Member States entitled to provide MRS information
1	ADRIREP	Croatia, Italy, Slovenia
2	BELTREP	Denmark
3	BONIFREP	France, Italy
4	CALDOVREP	France, UK
5	CANREP	Spain
6	COPREP	Portugal
7	FINREP	Spain
8	GDANREP	Poland
9	GIBREP	Spain
10	GOFREP	Estonia, Finland
11	GREENPOS	Greenland (so far out of scope of SSN reporting)
12	MANCHREP	France
13	OUESSREP	France
14	SOUNDREP	Denmark, Sweden
15	TRANSREP	Iceland
16	WETREP	Belgium, France, Ireland, Portugal, Spain, UK
17	BAREP	Norway

(*) This table can be revised in light of specific agreement between Countries at regional level.

3. MS2SSN_Ship_Details_Req.xml Structure

Elements	Attributes	Occ
<i>Header</i>		<i>1</i>
	Version	1
	TestId	0-1
	MSRefId	1
	SentAt	1
	TimeoutValue	1
	From	1
	To	1
<i>Body</i>		<i>1</i>
	<i>SearchCriteria</i>	<i>1</i>
	ShipNotType	1
	IMONumber	0-1
	MMSINumber	0-1
	MRSIdentification	0-1
	SenderCountryId	0-1

4. MS2SSN_Ship_Details_Req.xml Business rules

The following table describes the business rules applied to the message. The detailed definition of the attributes is included in Annex "A"

Item	Occ	Description
Header	1	
Version	1	
TestId	0-1	
MSRefId	1	The MSRefId must be unique.
SentAt	1	Format "YYYY-MM-DDThh:mm:ssTZD" where TZD = time zone designator (Z or +hh:mm or -hh:mm).
TimeoutValue	1	
From	1	
To	1	
Body	1	
SearchCriteria	1	
ShipNotType	1	To be selected between "MRS" or "AIS"
IMONumber	0-1	Mandatory if MMSINumber not given.
MMSINumber	0-1	Mandatory if IMONumber not given.
MRSIdentification	0-1	Allowed only if ShipNotType = MRS.
SenderCountryId	0-1	Alpha-2 code (two-digits) in accordance with the standard ISO 3166-1 defining the Country. This can be quoted to restrict the request to the Country sending the notification (identified by the Central SSN system on the basis of the attribute "From" in the notification)

Table "B" – Detailed business logic for the query

ID	Ship notification type	Information to be included in the RESPONSE message	Mandatory attributes to be quoted for accepting the REQUEST as valid	Optional attributes which can be quoted in the REQUEST
1	ShipNotType=MRS	<p>General rule: the query retrieves the latest MRS information available in SSN (on the basis of "ReportingDateTime") for a selected vessel (identified by the "IMONumber" and/or "MMSINumber")</p> <p>As a subcase of the above rule, the attribute "MRSIdentification" (optional) can be quoted to search the latest information for a specific MRS.</p> <p>The attribute "SenderCountryId" (optional) can be used to restrict the query to notifications sent by a specific MS.</p> <p>The response to this query (SSN2MS_Ship_Details_Res.xml) includes information from both notification and details. The details are provided via XML</p>	<p>- "ShipNotType", - "IMONumber" or "MMSINumber".</p>	<p>- "MRSIdentification" - "SenderCountryId"</p>

ID	Ship notification type	Information to be included in the RESPONSE message	Mandatory attributes to be quoted for accepting the REQUEST as valid	Optional attributes which can be quoted in the REQUEST
2	ShipNotType=AIS	<p>General rule: the query retrieves the latest AIS information available in SSN (on the basis of "Timestamp") for a selected vessel (identified by the "IMONumber" and/or "MMSINumber")</p> <p>As a subcase of the above rule, the attribute "SenderCountryId" (optional) can be used to select a specific MS providing the notification.</p> <p>The response to this query (SSN2MS_Ship_Details_Res.xml) includes information from both notification and detail. Details are provided via XML.</p>	<ul style="list-style-type: none"> - "ShipNotType", - "IMONumber" or "MMSINumber". 	<ul style="list-style-type: none"> - "SenderCountryId"

5. SSN2MS_Ship_Details_Req.xml Structure

Elements	Attributes	Occ	
<i>Header</i>		<i>1</i>	
	Version	1	
	TestId	0-1	
	SSNRefId	1	
	SentAt	1	
	TimeoutValue	1	
	From	1	
	To	1	
<i>Body</i>		<i>1</i>	
	<i>SearchCriteria</i>		<i>1</i>
		ShipNotType	1
		IMONumber	0-1
		MMSINumber	0-1
		MRSIdentification	0-1
		SenderCountryId	0-1

6. SSN2MS_Ship_Details_Req.xml Business rules

The following table describes the business rules applied to the message. The detailed definition of the attributes is included in Annex “A

Item	Occ	Description
Header	1	
Version	1	
TestId	0-1	
SSNRefId	1	The SSNRefId must be unique.
SentAt	1	Format “YYYY-MM-DDThh:mm:ssTZD” where TZD = time zone designator (Z or +hh:mm or -hh:mm).
TimeoutValue	1	
From	1	
To	1	
Body	1	
SearchCriteria	1	
ShipNotType	1	From "MS2SSN_Ship_Details_Req.xml"
IMONumber	0-1	From "MS2SSN_Ship_Details_Req.xml"
MMSINumber	0-1	From "MS2SSN_Ship_Details_Req.xml"
MRSIdentification	0-1	From "MS2SSN_Ship_Details_Req.xml"
SenderCountryId	0-1	From "MS2SSN_Ship_Details_Req.xml"

7. MS2SSN_Ship_Details_Res.xml Structure

Elements	Attributes	Occ
<i>Header</i>	Version	1
	TestId	0-1
	MSRefId	1
	SSNRefId	1
	SentAt	1
	From	1
	To	1
	StatusCode	1
	StatusMessage	0-1
<i>Body</i>		<i>0-1</i>
<i>SearchCriteria</i>	<i>ShipNotType</i>	<i>1</i>
	IMONumber	0-1
	MMSINumber	0-1
	<i>MRSIdentification</i>	<i>0-1</i>
	<i>SenderCountryId</i>	<i>0-1</i>
<i>VesselIdentification</i>	IMONumber	0-1
	MMSINumber	0-1
	CallSign	0-1
	ShipName	0-1
<i>MRSNotificationDetails</i>		<i>0-1</i>
<i>MRSInformation</i>	<i>MRSIdentification</i>	<i>1</i>
	<i>CSTIdentification</i>	<i>0-1</i>
	<i>ReportType</i>	<i>0-1</i>
<i>MRSVoyageInformation</i>	NextPortOfCall	1
	ETA	0-1
	TotalPersonsOnBoard	1
	<i>AnyDG</i>	<i>1</i>
	Longitude	1
	Latitude	1
	ReportingDateAndTime	1
<i>MRSDynamicInformation</i>	COG	1
	SOG	1

			NavigationalStatus	1
		Bunker		0-1
			Chars	1
			Quantity	1
		MRSCargoInformation		1
			CargoType	1
		DG		0-1
			AOI	0-1
		DGDetails		1-∞
			IMOClass	1
			Quantity	1
		ContactDetails		1
			LastName	1
			FirstName	0-1
			LoCode	0-1
			Phone	0-1
			Fax	0-1
			EMail	0-1
		AISNotificationDetails		0-1
		VesselInformation		0-1
			LengthAndBeam	0-1
			ShipDraught	0-1
			ShipType	0-1
			AntennaLocation	0-1
		AISVoyageInformation		1
			NextPortOfCall	1
			ETA	0-1
			Longitude	1
			Latitude	1
			Timestamp	1
			TotalPersonsOnBoard	0-1
		AISDynamicInformation		1
			RoutePlan	1
			ROT	0-1
			COG	0-1
			SOG	0-1
			NavigationalStatus	0-1
			Heading	0-1
		AISCargoInformation		0-1
			HazardousCargoType	1

8. MS2SSN_Ship_Details_Res.xml Business rules

The following table describes the business rules applied to the message. The detailed definition of the attributes is included in Annex "A"

Item	Occ	Description
Header	1	
Version	1	
TestId	0-1	
MSRefId	1	The MSRefId must be unique.
SSNRefId	1	The SSNRefId is unique.
SentAt	1	Format "YYYY-MM-DDThh:mm:ssTZD". Where TZD = time zone designator (Z or +hh:mm or -hh:mm).
From	1	
To	1	
StatusCode	1	
StatusMessage	0-1	
Body	0-1	Optional only if StatusCode="InvalidFormat"
SearchCriteria	1	
ShipNotType	1	From "MS2SSN_Ship_Details_Req.xml" message.
IMONumber	0-1	From "MS2SSN_Ship_Details_Req.xml" message.
MMSINumber	0-1	From "MS2SSN_Ship_Details_Req.xml" message.
MRSIdentification	0-1	From "MS2SSN_Ship_Details_Req.xml" message.
SenderCountryId	0-1	From "MS2SSN_Ship_Details_Req.xml" message.
VesselIdentification	1	No checking rules to be applied if already applied in the notification.
IMONumber	0-1	Mandatoy if MMSI number is lacking.
MMSINumber	0-1	Mandatoy if IMO number is lacking.
CallSign	0-1	
ShipName	0-1	
MRSNotificationDetails	0-1	Not allowed if StatusCode<> OK or if AISNotificationDetails specified
...		
AISNotificationDetails	0-1	Not allowed if StatusCode<> OK or if MRSNotificationDetails specified
...		

MRSNotificationDetails element

The following table describes the MRSNotificationDetails element (returned if ship ShipNotType = MRS):

Item	Occ	Description
MRSNotificationDetails	0-1	MRSNotificationDetails element node. Not allowed if StatusCode<> OK or if AISNotificationDetails element is specified
MRSInformation	1	
MRSIdentification	1	From the initial "MS2SSN_Ship_Not.xml" message. It shall match the Search criteria if quoted
CSTIdentification	0-1	From the initial "MS2SSN_Ship_Not.xml" message
ReportType	0-1	From the initial "MS2SSN_Ship_Not.xml" message
MRSVoyageInformation	1	
NextPortOfCall	1	Location code of next port of call. It can be any LOCODE listed in the UNECE LOCODE list or any LOCODE listed in the specific EMSA locode list.
ETA	0-1	Format "YYYY-MM-DDThh:mm:ssTZD" where TZD = time zone designator (Z or +hh:mm or -hh:mm). Date and time of the estimated time of arrival at next port of call.
TotalPersonsOnBoard	1	99999 if actually unknown.
AnyDG	1	Possible values: "Y" or "N"
Longitude	1	
Latitude	1	
ReportingDateAndTime	1	Format "YYYY-MM-DDThh:mm:ssTZD" where TZD = time zone designator (Z or +hh:mm or -hh:mm). Date and time of MRS reporting. This time stamp corresponds to the given position.
MRSDynamicInformation	1	
COG	1	
SOG	1	
NavigationalStatus	1	
Bunker	0-1	Mandatory for ships of more than 1000 GT.
Chars	1	
Quantity	1	Bunker estimated quantity
MRSCargoInformation	1	
CargoType	1	
DG	0-1	Element describing the dangerous/polluting goods on board. Mandatory if "AnyDG"="Y"
AOI	0-1	To provide detailed information about dangerous and polluting goods whenever the DGDDetails elements does not fit the reporting requirement (e.g. for reporting the oil cargo type, quantity, grades and density of heavy crude oil, heavy fuel oil, bitumen and tar as per WETREP requirements).

		<p>If other dangerous and polluting goods are carried simultaneously then DGDetails element shall be quoted.</p> <p>This attribute It can also be used for the other MRS to provide any other relevant information on dangerous and polluting goods.</p>
DGDetails	1-∞	
IMOCClass	1	
Quantity	1	Quantity of DPG
ContactDetails	1	Element indicating the address for the communication of cargo information
LastName	1	
FirstName	0-1	
LoCode	0-1	Location code of the contact person. Can be any LOCODE listed in the UNECE LOCODE list (i.e. not only LOCODES of ports) or any LOCODE listed in the SSN specific LOCODE list of EMSA
Phone	0-1	Only numbers and the symbol “+” are allowed. No spaces allowed. Mandatory if neither “Fax” nor “EMail” attributes are quoted.
Fax	0-1	Only numbers and the symbol “+” are allowed. No spaces allowed. Mandatory if neither “Phone” nor “EMail” attributes are quoted.
EMail	0-1	Email address of the contact point. Mandatory if neither “Phone” nor “Fax” attributes are quoted.

AISNotificationDetails element

The following table describes the AISNotificationDetails element (returned if ship notification type = AIS):

Item	Occ	Description
AISNotificationDetails	0-1	AISNotificationDetails element node. Not allowed if StatusCode<> OK or if MRSNotificationDetails element is specified. No checking rules applied in the AIS response.
VesselInformation	0-1	
LengthAndBeam	0-1	
ShipDraught	0-1	
ShipType	0-1	
AntennaLocation	0-1	
AISVoyageInformation	1	
NextPortOfCall	1	Location code of next port of call. May be “ZZUKN” if unknown. Considering the actual situation with the vast majority of the AIS messages include the actual name and not the Locode described in many different ways, the SSN Group decided not to reject notifications containing more than 5 characters in this attribute. Member States requesting through the web will receive the original content of the attribute. Member States when requesting through the XML these messages will receive ZZUKN.

ETA	0-1	Format “YYYY-MM-DDThh:mm:ssTZD” where TZD = time zone designator (Z or +hh:mm or -hh:mm). Date and time of the estimated time of arrival at next port of call. May only be optional if NextPortOfCall attribute value is unknown.
Longitude	1	
Latitude	1	
Timestamp	1	Format “YYYY-MM-DDThh:mm:ssTZD” where TZD = time zone designator (Z or +hh:mm or -hh:mm). Date and time of the AIS ship position. From the initial "MS2SSN_Ship_Not.xml" message
TotalPersonsOnBoard	0-1	99999 if actually unknown.
<i>AISDynamicInformation</i>	1	
RoutePlan	1	
ROT	0-1	
COG	0-1	
SOG	0-1	
NavigationalStatus	0-1	
Heading	0-1	
<i>AISCargoInformation</i>	0-1	
HazardousCargoType	1	

9. SSN2MS_Ship_Details_Res.xml Structure

Elements	Attributes	Occ		
<i>Header</i>		<i>1</i>		
	Version	1		
	TestId	0-1		
	MSRefId	1		
	SSNRefId	1		
	SentAt	1		
	From	1		
	To	1		
	StatusCode	1		
StatusMessage	0-1			
<i>Body</i>		<i>0-1</i>		
	<i>SearchCriteria</i>		<i>1</i>	
		ShipNotType	1	
		IMONumber	0-1	
		MMSINumber	0-1	
		MRSIdentification	0-1	
	SenderCountryId	0-1		
	<i>NotificationDetails</i>		<i>1</i>	
		SentAt	1	
		From	1	
		<i>VesselIdentification</i>		<i>1</i>
			IMONumber	0-1
			MMSINumber	0-1
			CallSign	0-1
	ShipName	0-1		
<i>MRSNotificationDetails</i>		0-1		
...				
<i>AISNotificationDetails</i>		0-1		
...				

10. SSN2MS_Ship_Details_Res.xml Business rules

No.	General rules applicable to the SSN2MS_Ship_Details_Res.xml message
1	MRS details can be provided in XML (phone/fax can be provided as a backup solution).
2	Details for both MRS and AIS notification can be provided only in XML

The following table describes the business rules applied to the message. The detailed definition of the attributes is included in Annex “A”.

Item	Occ	Description
Header	1	
Version	1	
TestId	0-1	
MSRefId	1	The MSRefId must be unique.
SSNRefId	1	The SSNRefId is unique.
SentAt	1	Format “YYYY-MM-DDThh:mm:ssTZD”. Where TZD = time zone designator (Z or +hh:mm or -hh:mm).
From	1	
To	1	
StatusCode	1	
StatusMessage	0-1	
Body	0-1	Optional only if StatusCode=”InvalidFormat”)
SearchCriteria	1	SearchCriteria element.
ShipNotType	1	From "MS2SSN_Ship_Details_Req.xml" message.
IMONumber	0-1	From "MS2SSN_Ship_Details_Req.xml" message.
MMSINumber	0-1	From "MS2SSN_Ship_Details_Req.xml" message.
MRSIdentification	0-1	From "MS2SSN_Ship_Details_Req.xml" message.
SenderCountryId	0-1	From "MS2SSN_Ship_Details_Req.xml" message.
NotificationDetails	1	
SentAt	1	Format “YYYY-MM-DDThh:mm:ssTZD”. Where TZD = time zone designator (Z or +hh:mm or -hh:mm). Date and time indicating when the notification has been notified to SSN
From	1	
VesselIdentification	1	
IMONumber	0-1	Mandatory if MMSI number is lacking.
MMSINumber	0-1	Mandatory if IMO number is lacking.
CallSign	0-1	
ShipName	0-1	
MRSNotificationDetails	0-1	If specified, the element “AISNotificationDetails” is not allowed.
...		
AISNotificationDetails	0-1	If specified, the element “MRSNotificationDetails” is not allowed.
...		

11. MS2SSN_Ship_List_Req.xml Structure

Elements	Attributes	Occ
<i>Header</i>		<i>1</i>
	Version	1
	TestId	0-1
	MSRefId	1
	SentAt	1
	TimeoutValue	1
	From	1
	To	1
<i>Body</i>		<i>1</i>
	<i>SearchCriteria</i>	<i>1</i>
	MRSIdentification	1
	StartDateTime	0-1
	EndDateTime	0-1
	SenderCountryId	0-1
	<TBD>	-----

12. MS2SSN_Ship_List_Req.xml Business rules

No.	General rules applicable to the MS2SSN_Ship_List_Req.xml message
1	This query can be used only for retrieving a list of MRS notifications (i.e. Ship notifications quoting the element "MRSNotification"). This query is not designed to retrieve AIS notifications.
2	The query retrieves the available notifications stored at Central SSN system. No details will be provided in the response.
3	The results can be fetch within a configurable timeframe (maximum 24 hours) which can be moved up to 60 days in the past (see table "C" for the detailed business logic).

The following table describes the business rules applied to the message. The detailed definition of the attributes is included in Annex "A".

Item	Occ	Description
Header	1	
Version	1	
TestId	0-1	
MSRefId	1	The MSRefId must be unique.
SentAt	1	Format "YYYY-MM-DDThh:mm:ssTZD" where TZD = time zone designator (Z or +hh:mm or -hh:mm).
TimeoutValue	1	
From	1	
To	1	
Body	1	
SearchCriteria	1	
MRSIdentification	1	
StartDateTime	0-1	Format "YYYY-MM-DDThh:mm:ssTZD" where TZD = time zone designator (Z or +hh:mm or -hh:mm).
EndDateTime	0-1	Format "YYYY-MM-DDThh:mm:ssTZD" where TZD = time zone designator (Z or +hh:mm or -hh:mm).
SenderCountryId	0-1	To be quoted for selecting the Country sending the notification (depending on the "From" in the notification)
<TBD>	----	----

Table "C" – Detailed business logic for the query

ID	Information to be included in the RESPONSE message	Mandatory attributes to be quoted for accepting the REQUEST as valid	Optional attributes which can be quoted in the REQUEST	Time criteria
1	<p>The response to this query (SSN2MS_Ship_List_Res.xml) includes a list of MRS notifications where ReportingDateTime is between StartDateTime and EndDateTime.</p> <p>If data are available, the query provides the information in XML depending on the search criteria (on the basis of "MRSIdentification", "StartDateTime" and "EndDateTime").</p> <p>The attribute "SenderCountryId" (optional) can be used to restrict the query to notifications sent by a specific MS.</p>	<ul style="list-style-type: none"> - MRSIdentification 	<ul style="list-style-type: none"> - SenderCountryId - StartDateTime - EndDateTime 	<ul style="list-style-type: none"> - StartDateTime and EndDateTime may be used in any order (Start before End or End before Start). Central SSN will consider the time period defined between the closest date and the farthest date. - Time period cannot be older than [SentAt - 60 days] and cannot be longer than 24 hours. - If only StartDateTime or EndDateTime is provided, then SentAt value is considered for the missing one. - If none is provided, Central SSN considers [StartDateTime = SentAt] and [EndDateTime = SentAt - 24 hours].

13. SSN2MS_Ship_List_Res.xml Structure

Elements	Attributes	Occ	
<i>Header</i>		<i>1</i>	
	Version	1	
	TestId	0-1	
	MSRefId	1	
	SSNRefId	1	
	SentAt	1	
	From	1	
	To	1	
	StatusCode	1	
	StatusMessage	0-1	
<i>Body</i>		<i>0-1</i>	
	<i>SearchCriteria</i>	<i>1</i>	
	MRSIdentification	1	
	StartDateTime	0-1	
	EndDateTime	0-1	
	SenderCountryId	0-1	
	<TBD>	----	
	<i>QueryResults</i>	<i>0-1</i>	
	<i>NotificationList</i>	<i>1</i>	
	<i>NotificationInformation</i>	<i>1-∞</i>	
<i>NotificationID</i>		<i>1</i>	
	SentAt	1	
	From	1	
	MSRefID	1	
	<i>MRSVesselIdentification</i>		<i>1</i>
		IMONumber	0-1
		MMSINumber	0-1
		CallSign	0-1
		ShipName	0-1
	Flag	0-1	
<i>MRSInformation</i>		<i>1</i>	
	MRSIdentification	<i>1</i>	
	CSTIdentification	<i>0-1</i>	
ReportType	<i>0-1</i>		
<i>MRSVoyageInformation</i>		<i>1</i>	
	NextPortOfCall	1	
	ETA	0-1	
	TotalPersonsOnBoard	1	
	AnyDG	1	
<i>MRSShipPosition</i>		<i>1</i>	
	Longitude	1	
	Latitude	1	
	ReportingDateTime	1	

14. SSN2MS_Ship_List_Res.xml Business rules

No.	General rules applicable to the SSN2MS_Ship_List_Res.xml message
1	This query can be used only for retrieving a list of MRS notifications (quoting the element "MRSNotification"). This is not designed to retrieve AIS notifications.
2	The query retrieves the available notifications stored at Central SSN system. No details will be provided in the response.

The following table describes the business rules applied to the message. The detailed definition of the attributes is included in Annex "A".

Item	Occ	Description
Header	1	
Version	1	
TestId	0-1	
MSRefId	1	The MSRefId must be unique.
SSNRefId	1	The SSNRefId is unique.
SentAt	1	Format "YYYY-MM-DDThh:mm:ssTZD". Where TZD = time zone designator (Z or +hh:mm or -hh:mm).
From	1	
To	1	
StatusCode	1	
StatusMessage	0-1	
Body	0-1	Optional only when StatusCode="InvalidFormat"
SearchCriteria	1	
MRSIdentification	1	From the "MS2SSN_List_Req.xml"
StartDateTime	0-1	From the "MS2SSN_List_Req.xml"
EndDateTime	0-1	From the "MS2SSN_List_Req.xml"
SenderCountryId	0-1	From the "MS2SSN_List_Req.xml"
<TBD>	----	
QueryResults	0-1	Could be not provided only in case no results are available
NotificationList	1	
NotificationInformation	1-∞	It returns 1-∞ results.
NotificationID	1	
SentAt	1	From the initial MS2SSN_Ship_Not.xml
From	1	From the initial MS2SSN_Ship_Not.xml

MSRefId	1	From the initial MS2SSN_Ship_Not.xml
MRSVesselIdentification	1	No checking rules to be applied if already applied in the notification.
IMONumber	0-1	Mandatoy if MMSI number is lacking.
MMSINumber	0-1	Mandatoy if IMO number is lacking.
CallSign	0-1	
ShipName	0-1	
Flag	0-1	
MRSInformation	1	
MRSIdentification	1	From the original "MS2SSN_Ship_Not.xml"
CSTIdentification	0-1	From the original "MS2SSN_Ship_Not.xml"
ReportType	0-1	From the original "MS2SSN_Ship_Not.xml"
MRSVoyageInformation	1	
NextPortOfCall	1	From the original "MS2SSN_Ship_Not.xml" Location code of next port of call. May be "ZZUKN" if unknown.
ETA	0-1	From the original "MS2SSN_Ship_Not.xml". Format "YYYY-MM-DDThh:mm:ssTZD" where TZD = time zone designator (Z or +hh:mm or -hh:mm). Date and time of the estimated time of arrival at next port of call. May only be optional if NextPortOfCall attribute value is unknown.
TotalPersonsOnBoard	1	From the original "MS2SSN_Ship_Not.xml". 99999 if actually unknown.
AnyDG	1	From the original "MS2SSN_Ship_Not.xml"
MRSShipPosition	1	
Longitude	1	From the original "MS2SSN_Ship_Not.xml".
Latitude	1	From the original "MS2SSN_Ship_Not.xml".
ReportingDateTime	0-1	From the original MS2SSN_Ship_Not.xml". Format "YYYY-MM-DDThh:mm:ssTZD" where TZD = time zone designator (Z or +hh:mm or -hh:mm). Date and Time of MRS reporting. This corresponds to the given position at the time of reporting.

15. Attributes definition - Amendment to the Annex “A” in the XML RG 2.07

Attribute name	Type	Len	Description and general rules Message(s) that the attribute is included	Message(s) that the attribute is included
AOI	Text	1-350	This is used to report the WETREP specific information (e.g. information on oil cargo types, quantity, grades and density under designator “P”). It can also be used to provide other cargo-related data which is considered as essential by the data provider	MS2SSN_Ship_Details_Res.xml SSN2MS_Ship_Details_Res.xml
CSTIdentification	Text	1-30	CST responsible for receiving ship-to-shore MRS reports. It starts with Alpha-2 code (two-digits) in accordance with the standard ISO 3166-1. The full list of the relevant CSTs will be included in the “MRS Guidelines” and regularly updated when needed.	MS2SSN_Ship_Not.xml MS2SSN_Ship_Details_Res.xml SSN2MS_Ship_Details_Res.xml SSN2MS_Ship_List_Res.xml
AnyDG	Enum		Used to report any dangerous or polluting goods (DPG) on board. Possible values: Y: declares that DPG is on board N: declares that there is no DPG on board	MS2SSN_Ship_Not.xml MS2SSN_Ship_Details_Res.xml SSN2MS_Ship_Details_Res.xml SSN2MS_Ship_List_Res.xml
MRSIdentification	Text	1-15	MRS as defined by IMO requirements which the notification is referred to. The list covers the existing MRS established along EU waters and for the time being is the following: <ul style="list-style-type: none"> • ADRIREP • BELTREP • BONIFREP • CALDOVREP • CANREP • COPREP • FINREP • GDANREP • GIBREP • GOFREP • GREENPOS • MANCHREP • OUESSREP • SOUNDREP • TRANSREP • WETREP • BAREP The full list will be included in the “MRS Guidelines” and regularly updated when needed.	MS2SSN_Ship_Not.xml MS2SSN_Ship_Details_Req.xml SSN2MS_Ship_Details_Req.xml MS2SSN_Ship_Details_Res.xml SSN2MS_Ship_Details_Res.xml MS2SSN_Ship_List_Req.xml SSN2MS_Ship_List_Res.xml

ReportType	Text	2	<p>Possible values (as per IMO requirements):</p> <ul style="list-style-type: none"> • Sailing Plan= SR • Position Report=PR • Deviation Report=DR • Final Report=FR • Final Report (for ADRIREP) =ER • Dangerous Goods Report=DG • Harmful Substances Report=HS • Marine Pollutants Report=MP <p>The full list will be included in the “MRS Guidelines” and regularly updated when needed.</p>	MS2SSN_Ship_Not.xml MS2SSN_Ship_Details_Res.xml SSN2MS_Ship_Details_Res.xml SSN2MS_Ship_List_Res.xml
SenderCountryId	Text	2	Alpha-2 code (two-digits) in accordance with the standard ISO 3166-1.	MS2SSN_Ship_Details_Req.xml SSN2MS_Ship_Details_Req.xml MS2SSN_Ship_Details_Res.xml SSN2MS_Ship_Details_Res.xml MS2SSN_Ship_List_Req.xml SSN2MS_Ship_List_Res.xml
ShipNotType	Enum		<p>Possible values:</p> <ul style="list-style-type: none"> • MRS • AIS 	MS2SSN_Ship_Details_Req.xml SSN2MS_Ship_Details_Req.xml MS2SSN_Ship_Details_Res.xml SSN2MS_Ship_Details_Res.xml