European Maritime Safety Agency

STATUS AT NATIONAL LEVEL

SSN implementation, data quality and THETIS interface

Submitted by EMSA

Summary	The document analyses SSN implementation at national and central level, the agreed data quality indicators and the issues affecting the interface with THETIS.
Action to be taken	As per paragraph 8
Related documents (most recent ones)	a. SSN 18 report b. SSN 18/5/2 document c. HLSG 8 report, Agenda item 3.1 d. SSN 19/3/5 document e. SSN 19/4/2 document

1. INTRODUCTION

This document provides an analysis of the implementation of SafeSeaNet (SSN) at national and central level, and of related quality issues. In addition to the SSN issues the SSN 15 Workshop (4/5 May 2011) invited EMSA to include a regular update on the interface with THETIS.

Reports on the status of SSN implementation by Member States (MSs) have been generated since 2007. These are based on data quality checks performed by the EMSA Maritime Support Services (MSS). Summaries of the results of these checks are included in the MS status reports that are sent to all participating countries.

2. SUMMARY

The evolution of the SSN implementation is steadily improving, and is close to being completed:

- All MSs are technically able to provide Port Plus notifications to SSN. The SSN V1 Port and Hazmat notifications have been phased out on 14 December 2012.

- The use of the phone/fax solution for Hazmat details is steadily decreasing.The HLSG supported the establishment of a working group on Mandatory Reporting System (MRS) in order obtain the full benefits from MRS information[1].

---

[1] A new MRS will enter into force by 1 June 2013; the Barents Ship Reporting System shared by Norway and Russia. It is the first IMO approved that does not require verbal communications.

- The number of rejected messages has significantly decreased since the deployment of a patch on 22 November 2012.

Some of the longstanding specific issues mentioned at SSN 18 affecting individual MSs have been resolved or minimised. Examples are the problems associated with the request-response for Hazmat (Finland) or mismatched LOCODEs with THETIS (Norway).

On the other hand, others remain unresolved, such as: the use of dummy values in ETAs or ETDs (mainly the Netherlands); the use of the dummy POB value (4 MSs still quote this value in more than 20% of their Port Plus notifications); the lack of MRS notifications from Ireland, Portugal, Spain, Sweden and the United Kingdom and; the AIS coverage problems in Portugal and Greece.

With respect to missing notifications and rejected messages, the overall situation is improving, but further effort from Member States is necessary in order to meet the agreed requirements (see sections 4.3 and 4.5 of the Interface and Functionalities Control Document).

EMSA and the above mentioned MSs should find a way to resolve these issues in order to comply with legal and technical requirements.

This document is divided into 6 main parts:

- SSN Implementation (section 3).

- Operational use of SSN (section 4).

- System availability and performance (section 5).

- Data Quality (section 6).

- Interface with THETIS (section 7).

- Proposals/requested actions (section 8).

MSs willing to receive the raw data on the topics mentioned are invited to contact the MSS.

3. SSN IMPLEMENTATION

The status of SSN implementation for each MS is shown in Annex I. This shows the system implementation report summary (Table 1) and the number of notifications per type (Table 2).

3.1. Port Plus Notifications

Port Plus notifications are widely reported by all MSs. However, some MSs still do not implement the Port Plus message in accordance with the agreed rules laid down in the XML Reference Guide (see section 6 and 7) for all ports.

It should also be noted that some MSs need to correct their implementation and/or operational procedures at national level in the following areas:

- The number of "Hazmat Non EU Departure" (i.e. for ships carrying dangerous or polluting goods that are inbound to their ports from non-EU countries) is not realistic, in particular for France and Spain (see Annex I, Table 2).

- Several issues have been detected when reporting Hazmat information (see full report SSN 19/3/5: Hazmat reporting through SSN), especially the lack of certain attributes such as the DG Classification, the location of the cargo and the fact that some MSs are swapping the Hazmat details and the Cargo Manifest (i.e. Bulgaria and Germany[2]).

- Port Plus implementation is not yet harmonised for all ports. Germany acknowledged that, for many ports, the Hazmat information is not provided in the same Shipcall as the one reporting ETA/ETD to PortOfCall.

All MSs are now providing this type of notification.

3.2. Ship AIS and Ship MRS Notifications

Ship AIS notifications: Denmark, the Netherlands, Norway, Portugal, Spain, Sweden and the United Kingdom[3] provide AIS information only via a data stream. The remaining MSs continue to use both the message-based and the streaming mechanisms to provide AIS information. Greece still has some gaps in its AIS coverage and Portugal does not provide AIS information for the Azores and Madeira.

Ship MRS notifications: The list of MRSs adopted by the IMO which should be reported to SSN is shown in Table 3. Despite the solid legal basis, and the clear obligation to exchange this type of information via SSN, no reports have yet been received for CALDOVREP (United Kingdom), CANREP (Spain), SOUNDREP (Denmark and Sweden), TRANSREP (Iceland) or WETREP (Ireland, Portugal, Spain and the UK).

It is noted that Belgium began exchanging MRS reports for WETREP in May 2012, Denmark for BELTREP in August 2012, and Iceland has not provided MRS reports for TRANSREP since October 2012.

3.3. Incident Reports

The exchange of information between MSs, and especially requests for further action, including visits to certain ships, is not yet widely implemented. These cases are rarely found in SSN.

In general, Table 4 shows a mixed picture. The new XML messaging framework for IRs (version 2.07) should fulfil the operational requirements (identifying each type of IR, distributing via XML and not only using the web distribution tool, etc.).

4. OPERATIONAL USE OF SSN

There are 3,081 authorities or persons registered in SSN, with 922 registered as web users in the central SSN system and 455 have access to the SSN Graphical Interface (SSN GI). Other registered users at national level are accessing the information via the national systems.

According to EMSA statistics, the level of requests to SSN (machine to machine or via the web textual interface) remains low for most MSs (see Annex II – Table 5, detailing

---

[2] Germany corrected the problem on the 27 February 2013.

[3] Although United Kingdom provides AIS information only via a data stream, Gibraltar still uses the message-based mechanism to provide AIS information.

requests by MS and by type of notification). It should be noted that these statistics neither include requests for SSN information submitted by other systems users (e.g. THETIS, CleanSeaNet, BlueBelt pilot project), nor SSN information obtained via the simple display/visualisation of the central SSN SSN GI.

During 2012, it is noted that:

- Denmark gradually phased out automated Shipcall requests for the full Hazmat details (between March and June 2012);

- Norway replaced the automated Shipcall requests for the full Hazmat details in August, and is currently requesting the Hazmat summary, as suggested, and;

- Finland reduced the number of automated Port requests by 75% (February 2012).

5. SYSTEM AVAILABILITY AND PERFORMANCE

EMSA continuously monitors the availability and performance of SSN. This includes the connection status of SSN National systems and the exchange of notifications between these systems and the central SSN system, as well as the interfaces between central SSN and other EU systems (CSN, THETIS, LRIT). When a connection failure is detected, or a Member State is not providing notifications, the situation is recorded and reported to the respective country.

Within the exercise undertaken for this report, it was observed that:

- in 2012, the maximum central SSN system downtime occurred in the fourth quarter 2012, and lasted 13 hours 32 minutes, with the maximum permissible period of continuous interruption being exceeded by around one and a half hours. Yet, the availability of the central SSN system (including the SSN GI) over the one year period January 2012 to December 2012 was 99.33%[4];

- during 2012, the SSN-THETIS interface was down 4 times, with a total duration of 28 hours. Interface downtimes were all shorter than 24 hours, and no information was lost (just delayed);

- with reference to SSN National systems, no relevant full downtimes were detected during 2012, and;

- partial downtimes of more than 24 hours were observed for some SSN National systems (Bulgaria, Finland, Greece, Ireland, Italy, Lithuania, Malta, Poland, Portugal, Romania, Sweden and the United Kingdom) that affected the delivery of Port Plus information and the service delivered by THETIS system. During those periods, no information on ship calls was available to support Port State Control activity.

---

[4] According to the IFCD section 4.3 System Availability Requirements "the availability of the SSN system shall be maintained at a minimum of 99% over a period of one year, with the maximum permissible period of interruption being 12 hours".

5.1. Proposal for monitoring MSs availability

At SSN WS 18, EMSA presented a proposal aimed at improving the monitoring of SSN National systems availability by using "test" messages ("triggering" the request/response process).

During SSN WS 18, Belgium offered to send a different proposal to EMSA for further analysis (based on their national experience). It was then agreed by the Group that EMSA would analyse the method applied by Belgium and report the outcome of the analysis at SSN WS 19.

Annex V includes, for reference, the Belgian proposal, the EMSA analysis and the resultant final EMSA proposal (summarised below).

a. SSN will monitor, via the SSN application's logs, the following two connection channels with the MSs:

- The connection (initiated by a MS to SSN) used to send notifications, requests and responses. The MS receives receipt messages from SSN for each MS2SSN notification, MS2SSN request or MS2SSN response.

- The connection initiated by SSN to an MS (data provider) following a request for details from another MS (data requester). During this connection, SSN also receives receipt messages from the MS (data provider) for each SSN2MS request.

b. If entries exist in the SSN logs which confirm that both of these connections are actually "live" between SSN and MS1 within a configurable period (e.g. the last 1 hour), there is no need for SSN to initiate any test process to check the interface with MS1.

c. If no activity is recorded in the logs for the configurable period, SSN will (following the approach proposed by Belgium in the proposal defined as the "simple" approach option "1b-ref Annex V"):

- initiate a request to the MS for the given type of message to confirm that no activity was recorded (e.g. send a Port Plus ShipCall request for Hazmat details).

- monitor whether a response to the request was received within the time-out period agreed for SSN and specified in the IFCD. SSN will also monitor the server providing the details whenever URL details are involved. Should the response/URL details not be retrieved, SSN will attempt to send another request for details for the same type of message, but for a different ship. Should no response be received to this second message, a visual alarm will be triggered within the SSN central's system dashboard (for raising awareness of the MSS operator on duty) and a warning e-mail will be automatically generated and sent to the 24/7 e-mail account of the MS1.

This solution has no impact on the MS, and ensures that the quantity of "test" messages exchanged between SSN and MSs is kept to an absolute minimum.

6. DATA QUALITY

EMSA Maritime Support Services (MSS) closely monitors SSN data quality on a 24/7 basis, and as a result, has obtained specific information on the main problems within the

SSN system. A detailed report on the situation in the following areas can be found in Annex IV:

    a. Missing Port (or Port Plus) notifications (section 6.1 and Annex III – Table 6)

    b. Missing Hazmat information (section 6.2 and Annex III – Table 7)

    c. Hazmat details using phone/fax solution (section 6.3 and Annex III – Table 8)

    d. Rejected notifications (section 6.4 and Annex III – Table 9 and Table 10)

The reporting period for missing Port and Hazmat information was the second half of 2012. For Hazmat details, it was 1 December 2012 to 31 January 2013, and for rejected Port Plus notifications, it was January 2013.

A summary of the findings is presented in sections 6.1-6.4 below, and full details are available in Annex III.

6.1. Missing Port (or Port Plus) notifications

In order to verify whether the required Port notifications are being provided, the MSS monitors data comprehensiveness and quality by comparing information in Port notifications sent to SSN with information available from other sources (AIS and Sea-web).

To better assist MSs in the implementation of the Directive at national level, the checks were also refined and focused on ports and vessels for which missing notifications were recorded in the past, or for which no checks were recently carried out.

Within the exercise undertaken for this report, the MSS checked 3,907 ships that were known to have visited EU ports. By refining the checks, the MSS also increased the port check coverage by 8.5 % (70 ports were checked for the first time), mainly for small ports with few ship calls.

It was found that 97 of the due notifications had not been sent to SSN (i.e. 2.5% of ships calling at EU ports were not reported to SSN). It should be noted that missing messages affect compliance with both the VTMIS and PSC Directives.

Compared to the previous reporting period, the increase from 1.6% does not necessarily mean that the overall results worsened. This is because the checks were refined and missing notifications are now more susceptible to be detected. Figure 1 shows the overall trend by comparing the percentage figures for the previous reporting periods.
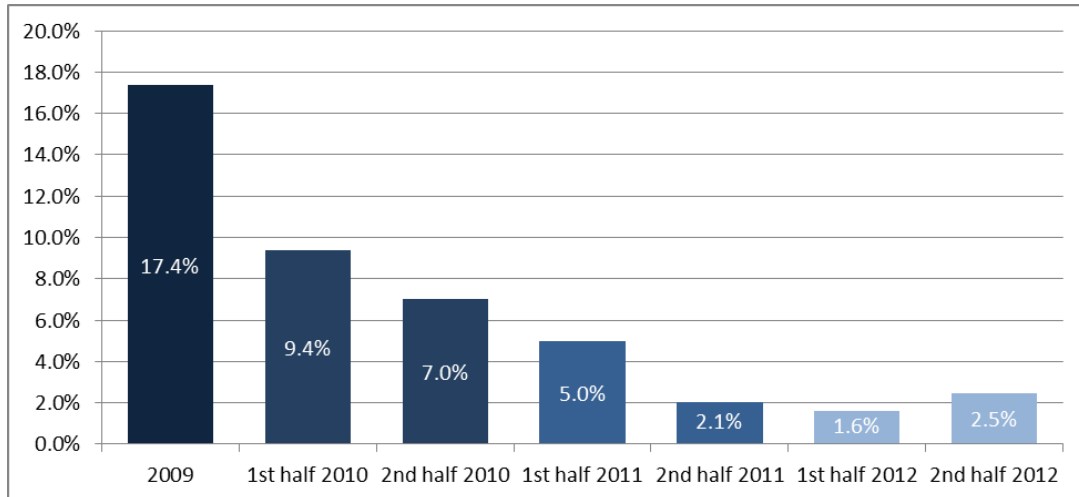
Figure 1 – Missing Port notifications by reporting period

Table 6 in Annex III includes the detailed results per Member State.

6.2. Missing Hazmat information

The MSS analysed MRS reports and monitored ships known to be carrying Hazmat cargoes by cross-checking the results with Hazmat information provided by MSs.

Within the exercise undertaken for this report, 9.2% of the due notifications had not been sent to SSN (i.e. 139 of ships carrying Hazmat cargoes in the sample studied did not provide Hazmat notifications to SSN). At the time of the last report, following progressive improvements, the situation had deteriorated from 8% to 11% (see Figure 2). This is now recovering, but is still above the levels for 2nd half 2011.

Figure 2 shows the overall trend by comparing the percentage figures for the previous reporting periods:

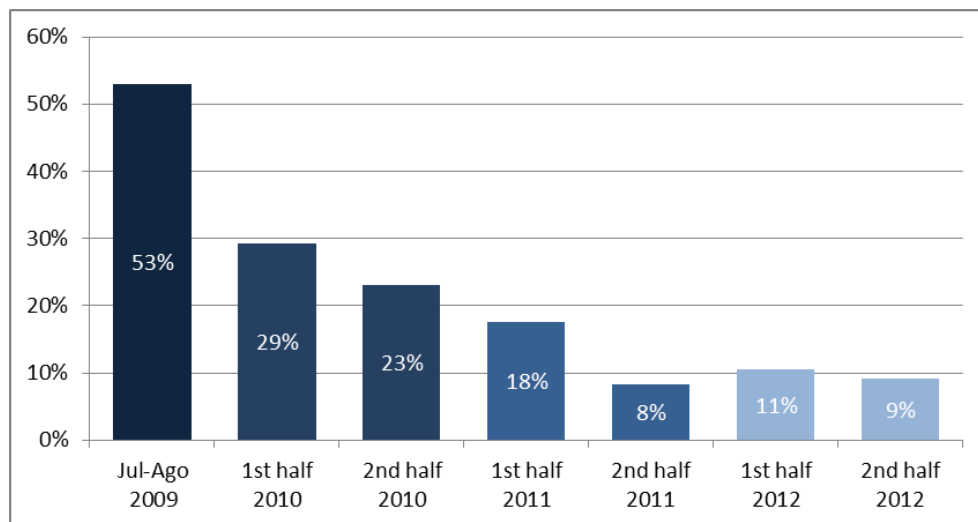**Figure 2 – Missing Hazmat information by reporting period**

Table 7 in Annex III includes the detailed results by Member State.

6.3. Hazmat details using phone/fax solution

The 6th HLSG meeting (13 December 2011), agreed that MSs would endeavour to phase out the phone/fax solution for the provision of Hazmat details. The phone/fax solutions for Hazmat messages would continue to be available only in emergency situations.

Although the figures remain high (13% of Hazmat details were sent using the phone/fax solution during the period Dec 2012/Jan 2013), the evolution is positive (see Figure 3). Also, the figures have now improved further because Germany corrected its implementation on 27 February 2013 (Hazmat details and Cargo manifest were swapped). In March, only 9% of Hazmat details were sent via phone/fax.
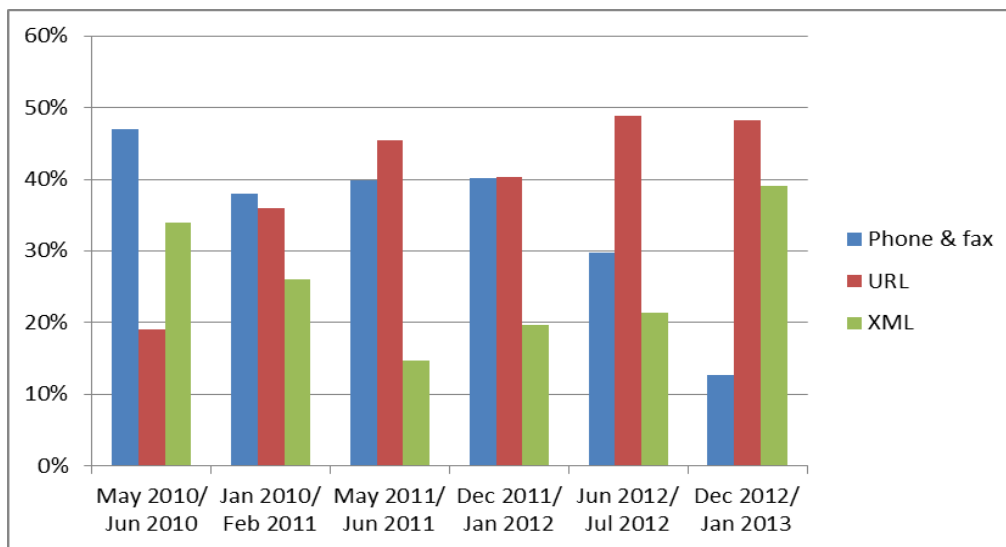
Figure 3 – Hazmat details by type and by reporting period

Table 8 in Annex III details the different solutions employed in each MS, together with the type of notification.

6.4. Rejected notifications

The Business Rules (BRs) defined in the XML Reference Guide (v.2.06) address the rejection of certain notifications implemented in SSN, and aim at keeping the system within acceptable levels of quality and consistency.

The situation is gradually improving, and MSs are progressively correcting the causes of rejections. In part, this is due to the more flexible business rules implemented in the new version of SSN (see Table 9 and Table 10 in Annex III). It should be noted that missing messages affect the proper implementation of both the VTMIS and PSC Directives.

MSs are reminded that, according to the IFCD, invalid messages (i.e. those not compliant with the standards set in the SSN technical and operational documentation) should account for less than 0.1% of the total number of messages sent. Denmark, Finland, Lithuania, Malta and Sweden are above this threshold for Port Plus notifications.

7. INTERFACE WITH THETIS

At SSN WS 17 and HLSG 7, EMSA was tasked to:

   a. ensure that any new business rules created for THETIS would be notified to the SSN group. Moreover, whenever there is no conflict between the underlying

Directives, the business rules in THETIS and SSN shall be aligned. Taking these things into account, no new business rules were implemented during the reporting period.

   b. continue reporting at SSN workshops on:

- the topic of mismatched LOCODEs;

- ATAs and ATDs not provided via Port Plus notifications, and;

- the timeliness of ATAs and ATDs.

This section reports on the above follow-up actions.

7.1. THETIS business rules

On 6 February 2013, a major THETIS release entered in production, with several upgrades to the existing functionalities included mainly for the benefit of the end-users (including improvements to the mobile client). As above, no new BRs were implemented which would affect the treatment of Port Plus notifications provided through SSN.

At SSN WS 18, Member States agreed that the BRs related to THETIS should be included in the next SSN release. The table below lists the BRs that caused the rejection of SSN data on 12 February 2013 after the deployment of the new THETIS version. Column "Measure" describes the expected action to be taken by SSN when receiving a notification containing information that is not in line with the BRs.

BR	Business rule	Number of rejections	Measure	Proposal
1	Location does not exist in the THETIS DB	1	Warning[5]	To flag THETIS LOCODEs in the SSN registry and warn SSN data providers (via the receipt message in Port Plus notifications). The update of THETIS LOCODEs in SSN would be done on a monthly basis.
2 & 6	Call to update with ATD without ATA	92	Rejection by SSN	ATA is a key element in THETIS. In order to implement it throughout the notification process, whenever ATD is provided, ATA should become mandatory in each notification.
	New call with ATD without ATA	14		
3	ATA or ATD in the future (>3h)	21	Warning	In future, SSN will warn (via the receipt message in Port Plus notifications) data providers whenever ATA or ATD are sent over 3h after they are due (ATA or ATD > SentAt+3h).

---

[5] See page 11: this measure is proposed to be ignored and "Warning" replaced by "None".

BR	Business rule	Number of rejections	Measure	Proposal
4	New call without IMO number where MMSI number does not correspond to any ship in the THETIS DB	7	Development of RVR	Rejections caused by ships not identified in THETIS may be overcome with the initiated project on the Reference Vessel Registry and the possible interaction of this registry with national ship's registries. The outcome of this working group may address or at least reduce this problem.
5	ATD before ATA	0	Rejection by SSN (current rule)	This rule already exists in SSN when ATA and ATD are provided together. If rules 2 and 6 are implemented (ATD always with ATA), then this issue will disappear.
7	New call without ATA and ETA	48	None	SSN BRs defines ETAToPortOfCall as mandatory unless the ship call is cancelled (ZZCAN). SSN will fully enforce this rule.
8	ATA older than one year	-	Rejection by SSN	Information will be rejected according to THETIS rules. No operational value for SSN.
	Total	**183**		

Figure 4 – Availability of ATA and ATD information in SSN for vessels falling within the scope of Directives 2009/16/EC and 1999/35/EC

MSs are invited to pay special attention to ship calls lacking an ATA, but providing an ATD, which caused 106 (92+14) rejections in a single day.

The next sections provide further details on the following:

a. Mismatched LOCODEs (see section 7.2);

b. ATA and ATD not provided via Port Plus notifications (see section 7.3), and;

c. Timeliness of ATA and ATD reported in SSN (see section 7.4), quantifying per MS the number of ship calls rejected due to BR 3 (ATA or ATD provided more than 3 hrs. in advance).

The employment of a warning message whenever THETIS will not process SSN information, and the alignment of the SSN BRs with those of THETIS, are the two applicable solutions allowing MSs to correct data in real time and to record detected issues for further investigation.

7.2. Mismatched LOCODEs

LOCODEs were the main reason for rejections in the past, but MSs reacted, and the number of LOCODEs not listed in THETIS has now reduced significantly. EMSA compared the LOCODEs used in the "PortOfCall" attribute in Port Plus notifications (1st August 2012 - 31st January 2013) with THETIS LOCODEs (dated 1st February 2013). The outcome is that 41 LOCODEs were not recognised by THETIS during this period (19 were UNECE while 22 were SSN Specific). At SSN WS 18, there were 171 LOCODEs reported as being mismatched.

The number of distinct ship calls not created via SSN Port Plus notifications was 248[6] (2,030 reported at SSN WS 18). The initial conclusions are:

- Only two MSs have a significant number of LOCODEs rejected by THETIS. Sweden had 14 LOCODEs rejected, which resulted in 83 missing calls, and during the same period, Norway had 10 LOCODES rejected, which resulted in 105 missing calls.

- 13 MSs have their SSN and THETIS LOCODEs aligned. These are Bulgaria, Estonia, Finland, France, Iceland, Italy, Lithuania, Latvia, the Netherlands, Portugal, Romania, Slovenia and United Kingdom.

- SSN Specific LOCODES are either not properly managed by the SSN community, or not supported by the relevant PSC Authority. MSs should request UNECE to create the relevant LOCODEs (with Port function), and to notify the PSC Coordinator at MS level that this has been done.

Pursuant to the discussion during SSN WS 17, EMSA contacted the PSC authorities in the MSs recalling the need to align the location identification between THETIS and SSN. This has already resulted in a number of adjustments, as well as a list of confirmed differences. These differences mainly pertain to locations not relevant to PSC, such as anchorages outside territorial waters and ports not receiving commercial ships. However, the alignment task is still on-going.

Following the adoption of the "LOCODE management" procedure at SSN WS18, EMSA took the initiative of sharing the same procedure with the PSC community. Initial agreement has been obtained, with formal confirmation expected at the Paris MoU annual meeting in May 2013. This will ensure that future changes in the list of codes used in SSN will be relayed by EMSA for acknowledgement by the respective PSC entities shortly afterwards.

The following table provides the evolution of the mismatched LOCODEs, comparing SSN WS 19 with previous reporting periods.

Member State	LOCODEs rejected by THETIS (SSN17)		LOCODEs rejected by THETIS (SSN18)		LOCODEs rejected by THETIS (SSN19)	
	UNECE	SSN Specific	UNECE	SSN Specific	UNECE	SSN Specific
Belgium	none	none	none	none	1	none
Cyprus	none	none	none	none	1	none
Denmark	1	1	1	1	1	none
Estonia	1	1	0	1	none	none
Finland	3	0	none	none	none	none
France	1	0	none	none	none	none
Germany	1	0	none	none	1	none
Greece	9	3	7	2	3	2
Ireland	2	1	none	none	1	2
Italy	18	2	16	0	none	none
Malta	2	0	2	0	2	1
Norway	36	131	34	99	5	5
Poland	none	none	1	0	none	1
Slovenia	2	0	none	none	none	none
Spain	none	none	none	none	1	none
Sweden	3	8	1	3	3	11
UK	5	1	2	1	none	none

---

[6] Port notifications are not considered in this figure as it is not possible to assess how many Port notifications refer to the same ship call.

**Figure 5 – Availability of ATA and ATD information in SSN for vessels
falling within the scope of Directives 2009/16/EC and
1999/35/EC**

EMSA will continue to report on this issue at SSN workshops and relevant Paris MoU meetings, and in MS's individual status reports on a monthly basis.

Taking into consideration the evident improvements shown in the monthly reports that MSs receive on this topic, and **further analysis on side effects and performance impacts**, **EMSA proposes** not to implement the "warning" message in the SSN receipt whenever a LOCODE is not listed in THETIS.

7.3. ATA and ATD not provided via Port Plus notifications

Within the context of the New Inspection Regime for Port State Control (established by Directive 2009/16/EC and supplemented by the RoRo Ferry inspection Regime - Directive 99/35/EC), MSs are required to provide the actual times of arrival (ATA) and departure (ATD) for ships calling at their ports and anchorages to the THETIS inspection database via SSN within a reasonable time (Art. 24.2).

ATA is a key element of THETIS, and ship calls missing this attribute are discarded (i.e. updates or new calls including ATD without ATA). MSs are reminded that, for statistical and operational purposes, THETIS only recognises a ship call when the ATA has been provided. This section evaluates the availability of ATA/ATD information in SSN for vessels falling within the scope of Directives 2009/16/EC and 1999/35/EC.

40,365 of the ship calls created in SSN during January 2013 (via Port Plus) fell within the scope of these directives (see Annex IV – Table 11 and Figure 6).

Following the methodology introduced at SSN WS 17 the findings showed that on average, 17.5% of ship call notifications lack both the ATA and the ATD. In addition, 3.9% lack only the ATA and 4.3% lack only the ATD. The overall situation has slightly improved since the last reporting period (July 2012).

Germany, Spain and Norway provide the largest number of notifications lacking both the ATA and ATD (Annex IV – Figure 7).

EMSA will continue to report on this issue at SSN workshops and relevant Paris MoU meetings, and in MS's individual status reports, on a monthly basis.

7.4. Timeliness of ATA and ATD reported in SSN

Article 24 of Directive 2009/16/EC on Port State Control requires that ATA and ATD information for all ships calling at MS ports or anchorages "is transferred within a reasonable time to the inspection database through the Community maritime information exchange system SafeSeaNet, together with an identifier of the port concerned."

Following the detection of abnormal differences between time of arrival information and the time of its provision (which created operational and statistical issues), THETIS implemented a new rule in June 2012 (as announced at the relevant Paris MoU meeting and SSN WS 17) in order to reject ATAs or ATDs which are provided more than 3 hours in advance of the system date and time.

EMSA has compared the timeliness of ATA and ATD information with the date/time sent (the "SentAt" element in the notification), and Annex IV (Table 12) reports the results by MS[7].

It is also noted that "ATD without ATA" and "no ATA or ATD" problems are often caused because MSs do not repeat all previously sent information in every Port Plus update as laid down in the XML Reference Guide.

8.   PROPOSALS/REQUESTED ACTIONS

8.1. EMSA/MSS reporting:

- MSs to assess the quality of the HAZMAT details on a regular basis, as suggested at SSN 19.3.5 "Outcome of the HAZMAT survey" (**action 1**). Unless suggested otherwise, EMSA/MSS to continue reporting with the same format and frequency.

8.2. SSN implementation (section 3) and operational use of SSN (section 4):

- MSs to ensure that Ship MRS notifications are submitted in compliance with the reporting obligations of Directive 2002/59/EC (**action 2**).

- MSs to ensure that Incident Reports are submitted in compliance with the reporting obligations of Directive 2002/59/EC (**action 3**).

8.3. Monitoring MSs availability (section 5):

- MSs to agree on the proposal presented (**action 4**).

8.4. Data quality (section 6):

- In relation to sections 6.1 and 6.2, MSs to take the necessary measures ensuring that all masters, agents and operators are fully aware of their Port and Hazmat reporting obligations (**action 5**).

- MSs should consider to impose sanctions whenever information is not provided in accordance with Directive 2002/59/EC (as amended), as foreseen for example in Art. 25b. That is, whenever ship masters, agents or operators do not provide Port or Hazmat notifications and send associated incident reports to SSN (**action 6**).

- In relation to section 6.3, MSs to minimise/stop the use of the phone/fax solution for the provision of details in Hazmat information (**action 7**).

- In relation to section 6.4, to analyse (and resolve when necessary) the causes of the rejection of Port Plus notifications, either by using the regular information provided by the MSS or the SSN receipts messages describing the causes of rejections (invalid format receipts). MSs are invited to ensure that errors in notifications are minimised. Should they occur, the corrected information should be sent to SSN without delay (**action 8**).

---

[7] Spain has a significant difference (average over 4 days) between the SentAt and the actual time when the notification is sent, affecting almost 100 % of their Port Plus notifications. This issue remains unresolved since more than one year.

8.5. LOCODES (section 7.2):

- SSN NCAs and PSC authorities to ensure that all relevant LOCODEs used by SSN (identifying an actual port) are recognised by THETIS (**action 9**).

- EMSA to continue reporting on this issue at SSN workshops and relevant Paris MoU meetings, and in MS's individual status reports on a monthly basis.

- The automatic "warning" using the SSN receipt whenever a LOCODE is not listed in THETIS is put on hold until further decision.

8.6. ATAs and ATDs not provided via Port Plus notifications (section 7.3):

- MSs to provide this information via SSN (**action 10**).

- EMSA to continue to report on this issue at SSN workshops and relevant Paris MoU meetings, and in MS's individual status reports on a monthly basis. Where necessary, MSs will be contacted individually.

8.7. Timeliness of ATAs and ATDs (section 7.4):

- MSs to provide ATAs and ATDs "within a reasonable time," avoiding their provision prior to arrival or departure (at least not more than 3h in advance) (**action 11**).

- EMSA to continue to report on this issue at SSN workshops and relevant Paris MoU meetings, and in MS's individual status reports.

List of Figures

List of Tables

Annex I: SSN system implementation by MS

Member State		PortPlus	Ship AIS	Ship MRS	Incident	SSN GI (AIS)	Comments regarding specific issues
BE	Belgium	yes	yes	yes	yes	yes	Incidents sent through IR distribution tool;
BU	Bulgaria	yes	yes	n.a.	yes	yes	Incidents sent through IR distribution tool
CY	Cyprus	yes	yes	n.a.	yes	yes	Incidents sent through IR distribution tool and the XML interface
DK	Denmark	yes	no	yes	yes	yes	Incidents sent through IR distribution tool; Missing MRS: Soundrep
EE	Estonia	yes	yes	yes	yes	yes	Incidents sent through IR distribution tool;
FI	Finland	yes	yes	yes	yes	yes	Incidents sent through IR distribution tool
FR	France	yes	yes	yes	yes	yes	Incident reports sent only via XML
DE	Germany	yes	yes	n.a.	yes	yes	Incidents sent through IR distribution tool
GR	Greece	yes	yes	n.a.	yes	yes	Incidents sent through IR distribution tool; gaps reported in AIS coverage
IC	Iceland	yes	yes	yes	yes	yes	Incidents sent through IR distribution tool and the XML interface; Missing MRS: Transrep
IE	Ireland	yes	yes	no	yes	yes	Incidents sent through IR distribution tool and the XML interface; Missing MRS: Wetrep
IT	Italy	yes	yes	yes	yes	yes	Incidents sent through IR distribution tool
LV	Latvia	yes	yes	n.a.	yes	yes	Incidents sent through IR distribution tool
LT	Lithuania	yes	yes	n.a.	yes	yes	Incidents sent through IR distribution tool
MT	Malta	yes	yes	n.a.	yes	yes	Incidents sent through IR distribution tool
NL	Netherlands	yes	no	n.a.	yes	yes	Incidents sent through IR distribution tool
NO	Norway	yes	no	n.a.	yes	yes	Incidents sent through IR distribution tool
PL	Poland	yes	yes	yes	yes	yes	Incidents sent through IR distribution tool and the XML interface
PT	Portugal	yes	no	yes	yes	yes	Incidents sent through IR distribution tool; Missing MRS: Wetrep; Missing AIS data from Azores and Madeira
RO	Romania	yes	yes	n.a.	yes	yes	Incident reports sent only via XML
SI	Slovenia	yes	yes	yes	yes	yes	Incidents sent through IR distribution tool and the XML interface
ES	Spain	yes	no	yes	yes	yes	Incidents sent through IR distribution tool and the XML interface; Missing MRS: Canrep and Wetrep
SE	Sweden	yes	no	no	yes	yes	Incidents sent through IR distribution tool; Missing MRS: Soundrep
GB	United Kingdom	yes	yes	no	yes	yes	Incidents sent through IR distribution tool and the XML interface; Ship AIS notifications are provided only by Gibraltar; Missing MRS: Caldovrep and Wetrep

Notes: Updated: 01 February 2013

Landlocked countries are not listed

yes	Participating, sending notifications
no	AIS information is provided using the stream mode
n.a.	Not applicable
no	No data provided to SSN or "commissioning" tests not passed in the case of the PortPlus notification

Table 1 – Implementation status by MS and by type of notification in February 2013

Member State	PortPlus notifications					Port notifications	Hazmat notifications	Ship notifications		Incident reports
	Distinct ShipCalls	Updates	Cancelled	Including Hazmat Non EU Departure	Including Hazmat EU Departure			AIS	MRS	
Belgium	28,404	154,478	648	3,793	13,630	-	-	3,508,270	429	4
Bulgaria	3,971	8,185	25	542	771	-	-	354,688	-	11
Cyprus	3,357	17,723	70	300	548	3	-	2,708,212	-	3
Denmark	25,372	104,012	1,135	75	1,771	-	-	-	7,772	45
Estonia	10,833	23,877	32	350	2,648	-	9	53,684	62,641	18
Finland	36,489	170,991	38	242	8,692	-	-	128,396	111,055	132
France	48,875	203,989	1,114	134	12,987	-	-	1,801,398	172,102	5,816
Germany	45,474	209,646	864	85	76	8	34,358	3,111,860	-	62
Greece	45,401	82,626	534	1,945	2,522	109,055	7,044	1,063,283	-	175
Iceland	2,312	4,880	-	35	183	-	-	250,002	2,201	3
Ireland	12,208	41,854	113	270	4,248	-	-	1,257,391	-	44
Italy	113,842	258,994	2,036	3,942	20,006	-	-	4,576,808	20,673	291
Latvia	8,335	38,395	72	66	2,997	-	-	1,090,330	-	7
Lithuania	5,686	26,518	128	100	1,769	-	-	450,626	-	1
Malta	9,103	52,301	468	1,198	2,571	607	582	473,961	-	16
Netherlands	65,130	204,013	1,773	3,130	15,762	26,500	3,854	-	-	147
Norway	79,765	200,673	590	1,079	7,749	-	-	-	-	75
Poland	15,433	134,555	373	160	3,808	20,097	6,851	2,236,787	12,677	16
Portugal	11,400	48,106	373	1,425	2,651	4,888	1,337	-	45,225	178
Romania	5,914	17,079	219	839	880	-	-	448,709	-	14
Slovenia	2,168	6,683	49	328	919	-	-	47,941	2,425	31
Spain	123,724	198,299	27	435	3,318	-	-	-	86,511	150
Sweden	60,529	152,070	2,919	603	10,012	-	1	-	-	47
United Kingdom	74,969	164,766	2,977	1,756	10,443	202,176	59,955	5,689,884	-	97
Total	838,694	2,524,713	16,577	22,832	130,961	363,334	113,991	29,252,230	523,711	7,383

Table 2 – Number of notifications by MS and by type of notification
Reporting period: January-December 2012

MRS	Area	Member States and 3rd Countries
ADRIREP	Adriatic Sea	Italy, Slovenia, Croatia and Montenegro
BAREP	Barents Sea	Norway and Russia **(in force from 01/06/2013)**
BELTREP	Great Belt	Denmark
BONIFREP	Strait of Bonifacio (only DPG)	France, Italy
CALDOVREP	Dover Strait/ Pas de Calais	France, United Kingdom
CANREP	Canary Islands (only for ships carrying heavy grade oils)	Spain
COPREP	Coast of Portugal	Portugal
FINREP	Finisterre (NW Coast of Spain)	Spain
GDANREP	Gulf of Gdansk	Poland
GIBREP	Strait of Gibraltar	Spain
GOFREP	Gulf of Finland	Estonia, Finland and Russia
MANCHREP	Off Les Casquests/ La Manche	France
OUESSREP	Off Ouessant	France
SOUNDREP	The Sound	Denmark, Sweden
TRANSREP	South & South West coast of Iceland	Iceland
WETREP	EU Atlantic Coast (only for ships carrying heavy grade oils)	Belgium, France, Ireland, Portugal, Spain and United Kingdom

Table 3 – Mandatory Reporting Systems in EU waters on 1st February 2013

Those MRSs that are not yet providing information to SSN are highlighted in red

Member State	SITREP	POLREP	WASTE	Lost&Found Containers	Others	TOTAL
Belgium	4	-	-	-	-	4
Bulgaria	8	-	-	-	3	11
Cyprus	1	-	-	-	2	3
Denmark	43	-	-	-	2	45
Estonia	14	-	-	-	4	18
Finland	50	-	-	1	81	132
France	356	207	5,245	8	-	5,816
Germany	61	1	-	-	-	62
Greece	128	8	3	-	36	175
Iceland	1	-	-	-	2	3
Ireland	10	2	-	5	27	44
Italy	207	2	-	2	80	291
Latvia	3	3	-	-	1	7
Lithuania	-	-	-	-	1	1
Malta	14	-	-	-	2	16
Netherlands	109	6	2	1	29	147
Norway	74	1	-	-	-	75
Poland	15	-	-	-	1	16
Portugal	172	-	-	-	6	178
Romania	12	1	-	1	-	14
Slovenia	10	2	-	-	19	31
Spain	122	-	2	2	24	150
Sweden	40	-	-	-	7	47
United Kingdom	93	-	2	-	2	97
Total	1,547	233	5,254	20	329	7,383

Table 4 – Number of Incident Reports by MS[8] and by type

Reporting period: January-December 2012

---

[8] France acknowledged that it has provided an abnormal number of Waste Incident Reports (375 in January 2013), and as a result, all French Port authorities have been informed and briefed on the 2000/59/EC Directive reporting requirements (which are further explained in the IR Guidelines). However, the number of incidents reported by France in March was still 358.

Annex II: Operational status by MS

Member State	Requests					
	Shipcall	**Port**	**Hazmat**	**Incident**	**Ship**	**TOTAL**
Belgium	37	-	47	219	8,740	9,043
Bulgaria	5	3	13	150	24	195
Cyprus	1,360	22	6	155	14	1,557
Denmark	1,913,040	-	11	379	46	1,913,476
Estonia	-	-	5	189	3	197
Finland	93	1,333,753	49	1,445	15	1,335,355
France	36	24	24	655	282	1,021
Germany	51	6	58	483	15	613
Greece	2	-	21	187	49	259
Iceland	-	6	5	14	11	36
Ireland	-	-	8	160	6	174
Italy	37	6	1	112	28	184
Latvia	2	-	1	129	-	132
Lithuania	-	-	9	216	8	233
Malta	40	-	12	214	8	274
Netherlands	5	-	101	289	27	422
Norway	1,429,303	-	11	419	27	1,429,760
Poland	32	16	101	578	31	758
Portugal	15	41	66	162	75	359
Romania	8	4	4	17	29	62
Slovenia	21	-	-	51	7	79
Spain	19	-	72	267	86	444
Sweden	-	-	18	913	2	933
United Kingdom	6	2	78	677	23	786
Total	**3,344,112**	**1,333,883**	**721**	**8,080**	**9,556**	**4,696,352**

Table 5 – Number of requests by MS and by type of notification[9]
Reporting period: January-December 2012

---

[9] Denmark and Norway phased out automatic requests for Hazmat details

Annex III: Data quality

Member State	Second half 2012 (Jul 2012 - Dec 2012)			Previous Period (Jan 2012 - Jul 2012)	Previous Period (Jul 2011 - Dec 2011)	Previous Period (Jan 2011 - Jun 2011)	Previous Period (Jul 2010 - Dec 2010)	Previous Period (Jan 2010 - Jun 2010)	Previous Period (Jun 2009 - Aug 2009)
	Nr. Checks	Missing Notifications	Missing Notifications (%)	Missing Notifications (%)	Missing Notifications (%)	Missing Notifications (%)	Missing Notifications (%)	Missing Notifications (%)	Missing Notifications (%)
Belgium	179	0	0%	0%	1%	0%	0%	2%	0%
Bulgaria	145	1	1%	1%	0%	1%	2%	8%	0%
Cyprus	151	0	0%	1%	0%	8%	0%	1%	40%
Denmark	172	16	9%	5%	1%	5%	4%	4%	0%
Estonia	175	4	2%	1%	0%	30%	96%	*	*
Finland	190	1	1%	0%	1%	3%	8%	4%	28%
France	174	3	2%	4%	11%	13%	25%	26%	38%
Germany	187	8	4%	2%	4%	8%	3%	2%	0%
Greece	167	8	5%	2%	4%	11%	16%	21%	67%
Iceland	145	1	1%	0%	1%	0%	1%	3%	7%
Ireland	143	0	0%	1%	0%	3%	21%	37%	43%
Italy	182	3	2%	0%	1%	6%	1%	6%	23%
Latvia	151	0	0%	0%	0%	1%	0%	0%	0%
Lithuania	151	2	1%	1%	0%	0%	3%	2%	3%
Malta	163	15	9%	1%	3%	8%	6%	21%	77%
Netherlands	178	3	2%	2%	0%	5%	4%	3%	6%
Norway	183	7	4%	1%	1%	3%	3%	2%	5%
Poland	164	1	1%	1%	0%	0%	3%	2%	0%
Portugal	151	6	4%	7%	8%	8%	2%	14%	16%
Romania	143	3	2%	0%	0%	1%	2%	0%	0%
Slovenia	142	0	0%	0%	1%	1%	3%	1%	0%
Spain	173	5	3%	1%	9%	3%	28%	35%	5%
Sweden	161	3	2%	1%	1%	1%	1%	6%	18%
United Kingdom	137	7	5%	4%	2%	3%	5%	14%	25%
Total	3907	97	2.5%	2%	2%	5%	7%	9%	17%

* Estonia not in production at that time, therefore no checks were performed.

Table 6 – Missing Port notifications by Member State and by reporting period
Highlighting those values higher than total average of missing notifications

Member State	Second half 2012 (Jul 2012 - Dec 2012)			Previous Period (Jan 2012 - Jun 2012)	Previous Period (Jul 2011 - Dec 2011)	Previous Period (Jan 2011 - Jun 2011)	Previous Period (Jul 2010 - Dec 2010)	Previous Period (Jan 2010 - Jun 2010)	Previous Period (Jul 2009 - Aug 2009)
	Nr. Checks	Missing Notifications	Missing Notifications (%)	Missing Notifications (%)	Missing Notifications (%)	Missing Notifications (%)	Missing Notifications (%)	Missing Notifications (%)	Missing Notifications (%)
Belgium	120	1	1%	1%	3%	2%	3%	2%	5%
Bulgaria	9	1	11%	5%	0%	5%	0%	31%	n.a.
Cyprus	5	2	40%	83%	100%	67%	75%	100%	100%
Denmark	26	4	15%	9%	12%	27%	86%	88%	50%
Estonia	31	6	19%	6%	11%	30%	67%	100%	100%
Finland	66	15	23%	7%	5%	32%	17%	45%	n.a.
France	120	3	3%	12%	20%	31%	49%	52%	61%
Germany	120	8	7%	5%	4%	7%	15%	18%	16%
Greece	45	7	16%	30%	30%	48%	47%	60%	67%
Iceland	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Ireland	19	2	11%	20%	100%	67%	100%	100%	n.a.
Italy	121	8	7%	5%	11%	20%	8%	39%	40%
Latvia	84	0	0%	10%	3%	6%	11%	26%	17%
Lithuania	15	3	20%	27%	11%	0%	29%	36%	0%
Malta	61	3	5%	4%	5%	19%	10%	16%	100%
Netherlands	119	1	1%	10%	8%	7%	11%	11%	6%
Norway	36	6	17%	13%	8%	17%	17%	7%	67%
Poland	50	1	2%	5%	0%	3%	2%	10%	100%
Portugal	113	23	20%	21%	13%	20%	17%	19%	25%
Romania	6	0	0%	40%	0%	20%	0%	10%	25%
Slovenia	0	0	n.a.	n.a.	0%	0%	0%	0%	n.a.
Spain	118	12	10%	13%	13%	29%	73%	39%	100%
Sweden	101	26	26%	15%	8%	17%	15%	27%	75%
United Kingdom	119	7	6%	11%	13%	16%	28%	25%	n.a.
Total	**1504**	**139**	**9.2%**	**11%**	**8%**	**18%**	**23%**	**29%**	**53%**

n.a. - no samples were available, therefore no checks were performed.

Table 7 – Missing Hazmat notifications by Member State and by reporting period[10]

Highlighting those values higher than total average of missing notifications

---

[10] Percentages are employed to allow MSs to verify their trends in a more user friendly way. Percentages should be disregarded for those MSs with a low number of samples employed, such as Bulgaria, Cyprus, Iceland, Ireland, Lithuania, Romania and Slovenia.

Member State	Percentage of PortPLus notifications including Hazmat information: details provided using				Percentage of Hazmat notifications: details provided using			
	Phone & Fax	URL	XML	Total number of notifications	Phone & Fax	URL	XML	Total number of notifications
Belgium	-	-	100%	3,066	-	-	-	-
Bulgaria	15%	85%	-	221	-	-	-	-
Cyprus	2%	15%	84%	158	-	-	-	-
Denmark	-	-	100%	259	-	-	-	-
Estonia	77%	23%	-	518	-	-	-	-
Finland	-	-	100%	1,312	-	-	-	-
France	94%	6%	0%	2,132	-	-	-	-
Germany	70%	-	30%	902	0.1%	100%	-	1,267
Greece	100%	-	-	918	-	-	-	-
Iceland	-	100%	-	37	-	-	-	-
Ireland	32%	68%	-	678	-	-	-	-
Italy	-	100%	0%	3,825	-	-	-	-
Latvia	-	86%	14%	568	-	-	-	-
Lithuania	5%	95%	0%	311	-	-	-	-
Malta	3%	97%	-	570	-	-	-	-
Netherlands	-	-	100%	3,024	-	-	100%	108
Norway	-	-	100%	2,209	-	-	-	-
Poland	-	-	100%	645	-	-	-	-
Portugal	-	81%	19%	1,007	-	-	-	-
Romania	-	100%	0%	236	-	-	-	-
Slovenia	-	-	100%	191	-	-	-	-
Spain	-	100%	-	490	-	-	-	-
Sweden	-	100%	-	1,426	-	-	-	-
United Kingdom	-	100%	0%	5,348	4%	96%	-	45
Total	**14%**	**48%**	**38%**	**30,051**	**0%**	**92%**	**8%**	**1,420**

Table 8 – Solution used for providing Hazmat details by Member State and by Notification type[11]

Reporting period: December 2012-January 2013

---

[11] SSN V1 Hazmat notifications were phased out on 14 December 2012.

Member State	January 2013 (SSN19)			SSN18	SSN17
	Port Plus Notifications	Port Plus Rejected	Rejection %	Rejection %	Rejection %
Belgium	15,302	6	0.04%	0.03%	0.09%
Bulgaria	925	0	0.00%	0.61%	1.46%
Cyprus	2,211	12	0.54%	0.77%	0.16%
Denmark	6,390	109	1.71%	0.66%	0.68%
Estonia	2,820	4	0.14%	0.49%	0.49%
Finland	16,558	452	2.73%	4.65%	16.64%
France	20,188	81	0.40%	1.13%	4.87%
Germany	37,394	19	0.05%	31.38%	0.13%
Greece	19,982	159	0.80%	1.19%	2.22%
Iceland	483	0	0.00%	0.00%	0.11%
Ireland	4,393	8	0.18%	0.19%	0.44%
Italy	25,046	66	0.26%	0.66%	0.46%
Latvia	3,411	13	0.38%	0.69%	1.54%
Lithuania	2,690	37	1.38%	2.04%	6.14%
Malta	4,744	109	2.30%	1.54%	1.54%
Netherlands	21,461	64	0.30%	1.19%	0.79%
Norway	22,965	33	0.14%	0.06%	0.59%
Poland	12,521	62	0.50%	0.63%	0.12%
Portugal	7,994	22	0.28%	4.28%	2.60%
Romania	1,619	7	0.43%	0.10%	0.05%
Slovenia	658	6	0.91%	1.24%	1.86%
Spain	27,730	12	0.04%	0.05%	0.07%
Sweden	25,237	1,547	6.13%	4.35%	1.86%
United Kingdom	43,861	336	0.77%	19.48%	N.A.
Total	326583	3164	0.97%	4,62%	2.08%

Table 9 – Port Plus notifications rejections and its evolution

Highlighting those values higher than 1% of rejected notifications in red and those values complying with the IFCD in green

Rule	Status message describing the reason for rejection (if more than one reason is quoted, means that all of them apply for the specific notification)	Rejections	Comment & Expected actions
Group 1: the "Time" logic is not respected (relations between ETAs and ETDs, etc.)			
R01	A Port Plus notification must have ETAtoNextPort subsequent to the ETDFromPortOfCall.ETAtoNextPort greater than ETDFromPortOfCall.	92	To be corrected by MSs
R02	A Port Plus notification must have ETAtoNextPort subsequent to the ATDFromPortOfCall: ETAtoNextPort greater than ATDPortOfCall	8	To be corrected by MSs
R03	A Port Plus notification must have ETAToPortOfCall prior to the ETDFromPortOfCall: ETAToPortOfCall less than ETDFromPortOfCall.	106	To be corrected by MSs
R04	A Port Plus notification must have ATAToPortOfCall prior to the actual departure time from port of call: ATAPortOfCall less than ATDPortOfCall.	81	To be corrected by MSs
Group 2: missing "mandatory" information			
R05	A Port Plus notification including the PreArrivalNotification24HoursDetails element or the HazmatNotificationInfoEUDepartures element must have ETDFromPortOfCall	336	To be corrected by MSs
R06	A Port Plus notification with hazmat EUDeparture must have a NextPort.	444	To be corrected by MSs
R07	A Port Plus notification with hazmat EUDeparture must have ETAToNextPort.	279	To be corrected by MSs
R08	ETAtoNextPort is Mandatory for notification messages including the NextPort information.	0	To be corrected by MSs
R09	The CargoManifest is mandatory when HazmatOnBoardYorN = Y	0	To be corrected by MSs
R10	A Port Plus notification with PortOfCall not equal to 'ZZCAN' must have EtaToPortOfCall (it is not optional).	3	To be corrected by MSs
R11	A Port Plus notification having PortOfCall = 'ZZCAN' can only be accepted if no ATAToPortOfCall/ATDFromPortOfCall has been provided up to now.	250	To be corrected by MSs / central SSN issue
R12	The notification must have quoted at least one of IMO or MMSI numbers	3	To be corrected by MSs
R13	A Port Plus notification including the PreArrival3DaysNotificationDetails element must have at least one of its attributes.	0	To be corrected by MSs
R14	A Port Plus notification including the HazmatNotificationInfoNonEUDepartures must have quoted the POBVoyageTowardsPortOfCall.	10	To be corrected by MSs

Table 10 – Number of rejections by cause and expected actions from EMSA and MSs

Reporting period: January 2013

Rule	Status message describing the reason for rejection (if more than one reason is quoted, means that all of them apply for the specific notification)	Rejections	Comment & Expected actions
Group 3: invalid values or references (IMO, MMSIs, LOCODES, ShipCallIds, etc.)			
R15	[SENDER]: A port plus notification with the specified shipCallId [SHIPCALLID] has already been registered in SSN by [SENDER]	69	To be corrected by MSs
R16	Invalid message. A port plus notification with the specified shipCallId [] has already been registered with different Vessel	0	To be corrected by MSs
R17	The message identified by MSRefId [MSREFID] has already been registered in SSN (Sent by [SENDER])	110	To be corrected by MSs / central SSN issue
R18	LastPort Locode [LOCODE] is not technically correct. PortOfCall Locode [LOCODE] is not technically correct. NextPort Locode [LOCODE] is not technically correct.	913	To be corrected by MSs
R19	PortOfCall Locode [LOCODE] is not permitted. Verify your access rights as Portplus Notifier.	156	To be corrected by MSs
R20	The IMO number [IMONumber] is not valid	98	To be corrected by MSs
R21	Call Sign must be 7 characters maximum	2	To be corrected by MSs
R22	The NextPort must be different from PORTOFCALL.	0	Not in force (SSN 2.05)
R23	The Port Plus notification having PortOfCall = 'ZZCAN' and shipCallId [SHIPCALLID] is invalid because no voyage was found with the specified shipCallId.	169	To be corrected by MSs / central SSN issue
R24	A PortPlus message update should be sent within maximum 120 days following the registration of the new ShipCall or the registration of the previous update for the same ShipCall	0	To be corrected by MSs
R25	The fax number is invalid	0	To be corrected by MSs
R26	The phone number is invalid	8	To be corrected by MSs
R27	The total number of persons aboard is not valid	0	To be corrected by MSs
R28	A Port Plus notification having PortOfCall equal to 'ZZCAN' must have UpdateStatus='U'.	14	To be corrected by MSs
R29	A Port Plus notification having UpdateStatus='U' must have UpdateMSRefId quoted.	9	To be corrected by MSs
R30	MID [MID] does not identify any Flag according to the ITU list of MIDs.	0	To be corrected by MSs
R31	A url must be defined for a URI source	4	To be corrected by MSs

Table 10 – Number of rejections by cause and expected actions from EMSA and MSs (cont.)

Reporting period: January 2013

Annex IV: SSN – THETIS interface

Member State	Number of Shipcalls (UNDER PSC)	Existing ATA & ATD	Existing ATD (missing ATA)	Existing ATA (missing ATD)	Missing ATA& ATD	ATA & ATD provided [%]	Only ATA missing [%]	Only ATD missing [%]	ATA & ATD missing [%]	ATA & ATD missing [%] Jul 2012	ATA & ATD missing [%] Dec 2011
Belgium	1,555	1,536	0	9	10	98.8%	0.0%	0.6%	0.6%	0.8%	1.0%
Bulgaria	230	229	0	0	1	99.6%	0.0%	0.0%	0.4%	1.4%	0.9%
Cyprus	202	201	0	0	1	99.5%	0.0%	0.0%	0.5%	0.0%	0.0%
Denmark	1,070	577	0	45	448	53.9%	0.0%	4.2%	41.9%	38.7%	35.5%
Estonia	590	570	0	0	20	96.6%	0.0%	0.0%	3.4%	1.8%	1.9%
Finland	1,392	1,322	3	8	59	95.0%	0.2%	0.6%	4.2%	3.2%	4.5%
France	2,147	1,924	18	148	57	89.6%	0.8%	6.9%	2.7%	9.5%	5.0%
Germany	4,644	2,724	0	127	1,793	58.7%	0.0%	2.7%	38.6%	3.4%	5.0%
Greece	1,532	1,263	0	66	203	82.4%	0.0%	4.3%	13.3%	6.5%	10.3%
Iceland	145	129	0	2	14	89.0%	0.0%	1.4%	9.7%	9.7%	13.4%
Ireland	848	847	0	1	0	99.9%	0.0%	0.1%	0.0%	0.6%	3.3%
Italy	2,260	2,236	0	16	8	98.9%	0.0%	0.7%	0.4%	0.2%	1.1%
Latvia	518	518	0	0	0	100.0%	0.0%	0.0%	0.0%	0.0%	1.4%
Lithuania	282	274	1	4	3	97.2%	0.4%	1.4%	1.1%	1.1%	1.9%
Malta	427	340	0	56	31	79.6%	0.0%	13.1%	7.3%	5.1%	9.5%
Netherlands	2,403	2,215	0	128	60	92.2%	0.0%	5.3%	2.5%	0.9%	2.3%
Norway	3,626	1,213	236	428	1,749	33.5%	6.5%	11.8%	48.2%	56.3%	54.4%
Poland	940	868	9	12	51	92.3%	1.0%	1.3%	5.4%	22.2%	7.2%
Portugal	1,009	662	3	24	320	65.6%	0.3%	2.4%	31.7%	44.3%	24.9%
Romania	353	351	0	1	1	99.4%	0.0%	0.3%	0.3%	0.2%	0.0%
Slovenia	126	126	0	0	0	100.0%	0.0%	0.0%	0.0%	1.5%	0.0%
Spain	5,435	2,772	1,243	112	1,308	51.0%	22.9%	2.1%	24.1%	29.6%	34.4%
Sweden	3,029	2,126	52	343	508	70.2%	1.7%	11.3%	16.8%	25.6%	12.2%
United Kingdom	5,602	4,957	17	219	409	88.5%	0.3%	3.9%	7.3%	28.5%	n.a.
TOTAL	**40,365**	**29,980**	**1,582**	**1,749**	**7,054**	**74.3%**	**3.9%**	**4.3%**	**17.5%**	**18.7%**	**-**
TOTAL Jul 2012	41,781	30,610	1,617	1,732	7,824	73.3%	3.9%	4.1%	18.7%	15.3%	-
TOTAL Dec 2011	33,449	25,176	1,273	1,878	5,122	75.3%	3.8%	5.6%	15.3%	15.3%	-

**Table 11 – Availability of ATA and ATD information in SSN for vessels falling within
the scope of Directives 2009/16/EC and 1999/35/EC[12]**

Reporting period: January 2013

---

[12] For most ports, Germany provides Hazmat information in a separate Shipcall from that reporting ETA/ETD to PortOfCall, therefore duplicating ship calls, but only providing one containing the ATA/ATD attributes.

Figure 6 – Availability of ATA and ATD information in SSN for vessels falling within the scope of Directives 2009/16/EC and 1999/35/EC (corresponding to Table 11)

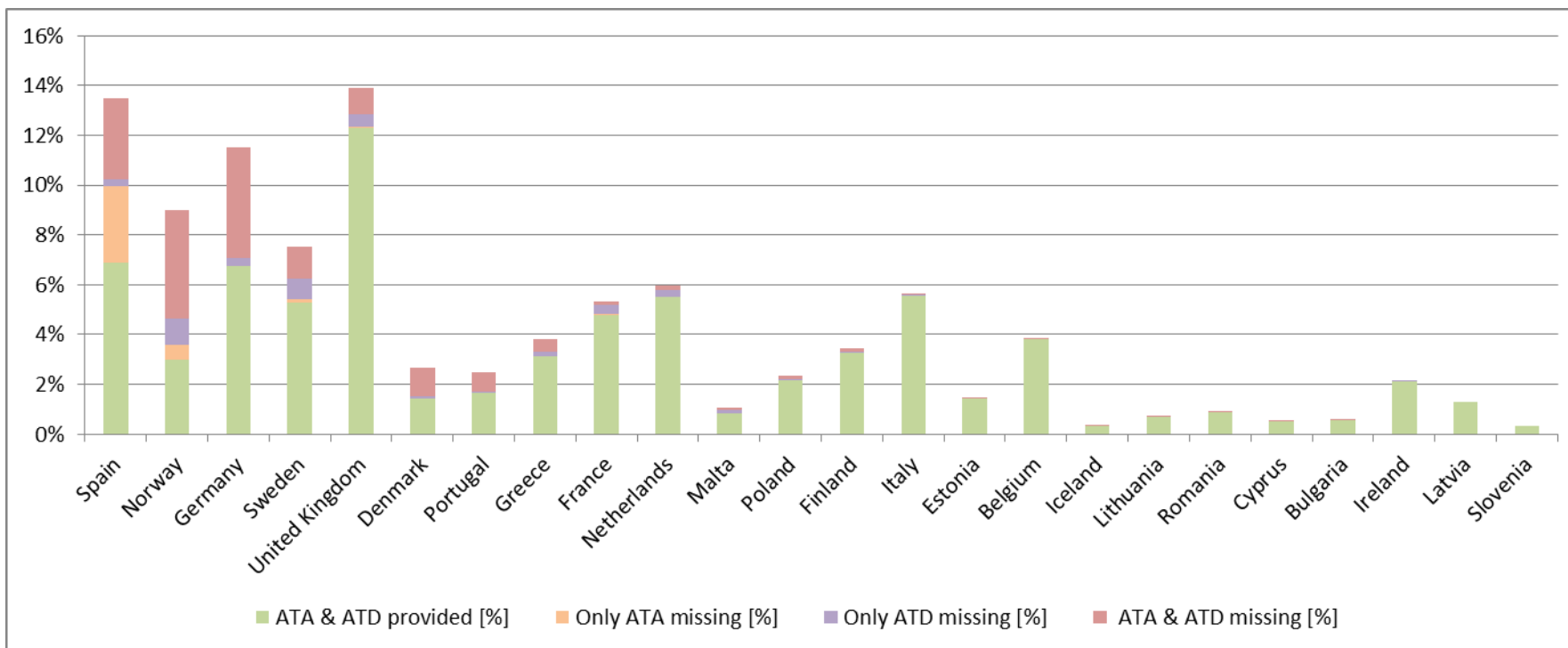**Reporting period: January 2013**

Figure 7 – Availability of ATA and ATD information in SSN for vessels falling within the scope of Directives 2009/16/EC and 1999/35/EC (corresponding to Table 11) – figures represent the percentage of overall EU ship calls

Reporting period: January 2013

Member State	ACTUAL TIME OF ARRIVAL PROVIDED					ACTUAL TIME OF DEPARTURE PROVIDED			
	More than 3h in advance	Within 3 hours period	Between 3 and 72 hours after	More than 72 hours after		More than 3h in advance	Within 3 hours period	Between 3 and 72 hours after	More than 72 hours after
Belgium	0.0%	99.2%	0.8%	0.0%		0.1%	99.1%	0.8%	0.0%
Bulgaria	0.0%	93.5%	5.8%	0.7%		0.7%	96.0%	2.9%	0.4%
Cyprus	0.4%	31.2%	67.4%	1.1%		0.0%	93.1%	5.8%	1.1%
Denmark	1.4%	43.7%	47.2%	7.6%		1.7%	43.9%	42.5%	11.8%
Estonia	0.0%	81.9%	17.7%	0.4%		0.0%	88.5%	11.3%	0.2%
Finland	0.0%	78.6%	20.5%	0.9%		0.0%	81.7%	17.8%	0.5%
France	0.0%	88.0%	10.6%	1.4%		0.4%	91.1%	8.1%	0.5%
Germany	0.0%	92.8%	6.4%	0.8%		0.0%	93.6%	5.6%	0.7%
Greece	0.0%	78.0%	21.0%	1.0%		0.0%	80.7%	18.3%	1.0%
Iceland	0.0%	99.3%	0.7%	0.0%		0.0%	100.0%	0.0%	0.0%
Ireland	0.0%	95.4%	3.7%	1.0%		0.0%	94.5%	3.4%	2.1%
Italy	0.0%	90.4%	9.1%	0.5%		0.0%	92.5%	6.8%	0.7%
Latvia	0.0%	98.2%	1.8%	0.0%		0.0%	97.0%	2.9%	0.2%
Lithuania	0.0%	68.0%	31.8%	0.2%		0.0%	93.6%	6.4%	0.0%
Malta	0.0%	89.2%	7.2%	3.6%		0.0%	97.5%	2.5%	0.0%
Netherlands	0.0%	87.1%	12.6%	0.3%		0.0%	94.7%	5.0%	0.2%
Norway	0.0%	80.3%	19.7%	0.0%		0.4%	82.5%	16.9%	0.2%
Poland	0.1%	87.6%	10.3%	2.0%		0.1%	92.7%	5.9%	1.3%
Portugal	0.1%	62.6%	29.5%	7.7%		0.1%	80.9%	13.0%	6.0%
Romania	0.3%	95.1%	3.1%	1.5%		1.3%	97.7%	1.0%	0.0%
Slovenia	0.0%	97.9%	2.1%	0.0%		0.0%	97.9%	2.1%	0.0%
Spain	41.8%	41.9%	15.5%	0.8%		54.7%	37.6%	7.6%	0.1%
Sweden	7.9%	70.6%	20.0%	1.2%		4.4%	83.8%	11.1%	0.8%
United Kingdom	0.0%	88.1%	10.5%	1.4%		0.0%	91.8%	7.2%	1.0%

Table 12 – Timeliness of ATA and ATD reporting[13]

Reporting period: January 2013

---

[13] In the case of Spain, the figures are not realistic because they show a significant difference (average over 4 days) between the SentAt and the actual time when the notification is sent (this affects almost 100 % of the Port Plus notifications).

Annex V: Monitoring of SSN2MS interface

The Belgian approach & proposal and the EMSA analysis

A.   Belgium proposal *(Received via e-mail on 8 March 2013)*

The suggestion quoted below is based on the experience Belgium already have since 2005 with the Belgian "Central Broker System" and the alive-check for SSN Belgium implements.

Background

The primary goal of any alive-check system will be to make sure:

   a) that information between the two systems can be exchanged at any time

   b) that any malfunction of the interface is detected at an early stage

Basically, the interface with each MS consists of two separate TCP/IP connections:

   • A connection initiated by the MS to SSN, used to send notifications, send requests and send responses on SSN-requests. On this connection the MS also receives receipt messages from SSN for each MS2SSN notification, MS2SSN request or MS2SSN response.

   • A connection initiated by SSN to the MS, used to send request (for details) to the MS. On this connection SSN also receives the receipt messages from the MS for each SSN2MS request

Malfunction of the interface can happen on both connections separately. Any monitoring system must be able to detect a malfunction on both these interfaces.

Approaches

Belgium sees two different approaches for alive-check in SSN.

1) A simple approach: only check interfaces with each MS

Any one of the following covers the requirements to monitor both interfaces. A combination is possible but not required.

   a) Monitoring performed by MS:

      1) MS regularly sends a request to SSN

      2) SSN replies with the response to the MS

      Both interfaces are tested, MS monitors that it receives a SSN_Receipt on the one connection and a SSN2MS response from SSN (and alerts when either the initial request can't be sent to SSN or the SSN-response is not received after a certain timeout).

      Please note that this implementation is currently performed by the Belgian NCA system. Every hour an **MS2SSN Ship Request** is sent.

b) Monitoring performed by SSN:

1) SSN regularly sends a request to the MS

2) MS replies with the response to SSN

Both interfaces are tested, SSN monitors that it receives a SSN_Receipt on the one connection and a MS2SSN response from the MS (and alerts when either the initial request can't be sent to the MS or the MS-response is not received after a certain timeout).

Note:

- The messages used for this can be either a dedicated set of messages or the normal messages (such as Ship Not Request/Response).

- The content of the response does not matter, the fact that the response is received indicates that the other party has processed the request and is able to send a response.

- The requests are repeated at a given interval.

A major advantage can be achieved by using version "1b" above with the normal messages: this can be implemented by SSN without requiring any change by the MS.

2) A more complex approach: check interfaces with each MS and distribution of overall system status

The more complex approach starts with the implementation of the simple monitoring mentioned above, initiated by SSN but uses dedicated messages. This suggestion is based on the alive-check implemented in the Belgian "Central Broker System".

In this case the dedicated request messages from SSN to the MS could contain extra information.

Some examples:

- Up/down/suspect status of both interface per MS + timestamps

- Up/down/suspect status of different components per MS (e.g. AIS, VTS, ...) + timestamps

- Up/down/suspect status of different components of SSN + timestamps

The dedicated response from MS to SSN would also contain extra information:

- Up/down/suspect status of both interfaces + timestamps

- Up/down/suspect status of any component that interests SSN

Added functionality can be reached by also implementing a specific receipt message for these dedicated messages. The receipt message would contain the same contents as is normally transferred via the request or response. In that way (during a malfunction of the 'sending' interface only) the status of the remote system can also be completely known via the receipt message, so by using only one of both TCP/IP interfaces.

An example might explain this better:

Example 1: Normal situation

1) SSN initiates a connection to the MS

   a. SSN sends a monitoring-request to MS (status of SSN and subsystems is included)

   b. MS sends a monitoring-receipt to SSN (indicating its status: everything OK)

Result: SSN knows that MS can be reached by SSN and currently has no problems detected. MS knows that SSN can still reach MS.

2) MS processes the (monitoring) request of SSN and initiates a connection to SSN

   a. MS sends a monitoring-response to SSN (indicating its status: everything OK)

   b. SSN sends a monitoring-receipt to MS (indicating the SSN-status)

Result: both SSN and MS know that the interface is OK, both systems are updated with the latest status information of the other system.

Example 2: Malfunction situation

1) SSN initiates a connection to the MS

   a. SSN sends a monitoring-request to MS (status of SSN and subsystems is included)

   b. MS sends a monitoring-receipt to SSN (indicating its status: its 'outgoing' interface to SSN is down)

Result: SSN knows that MS can be reached by SSN but that no information of MS will reach SSN. MS knows that SSN can still reach MS and also knows that SSN is informed about the problem in its outgoing interface.

This more complex system offers at all times more information to both parties about the status of the interface.

The major disadvantage of this system is the fact that all parties must implement extra messages and extra logic into their system.

B.   EMSA analysis

Both proposals made by Belgium have merits. Implementation of the second one, as also mentioned by Belgium above, requires the agreement of all the SSN participants on a set of new messages that would be implemented for test purposes from both EMSA , for the central SSN system, and MS (for their SSN national application). To avoid impacts (time, cost and effort) for the MS and maximise benefits, the solution to be adopted would be based on the first proposal from Belgium, (which make use of the existing framework of messages). In this respect and in order to minimise the need of exchange of messages that are not serving operational needs but send for testing the connection, EMSA proposes a variant of the solution 1.b described above by Belgium. In summary:

SSN will regularly monitor, via the logs maintained by the SSN application, both connections with a MS.

  a. If entries exist in the SSN logs confirming that both these connections were actually "alive" within a configurable period (e.g. the last 1 hour) between SSN and e.g. MS1, there is no need for SSN to initiate any test process to check the interface with MS1.

  b. If no activity is recorded in the logs for the configurable period, SSN (following the approach proposed by Belgium in the proposal defined as the "simple" approach option 1b above, SSN will:

    • initiate a request to the MS for the given type of message that no activity was recorded (e.g. send a Port Plus ShipCall request for Hazmat details).

    • monitor if a response to the request made is received within the time-out period agreed for SSN and specified in the IFCD. SSN will also monitor the server providing the details in the case of URL details. If the response is not received/ URL details are not retrieved, SSN will attempt to send another request for details for the same type of message but for a different ship. Should no response will not be received to this second message, a visual alarm will be triggered within the SSN central's system dashboard (for raising awareness of the MSS operator in rota) and a warning e-mail will be automatically generated and sent to the 24/7 e-mail account of the MS1.

This solution has no impact to the MS and ensures that the quantity of "test" messages to be exchanged between SSN and MSs is minimised to an absolute minimum.