



# 9<sup>th</sup> SSN LRIT Group Meeting

## AIS status update

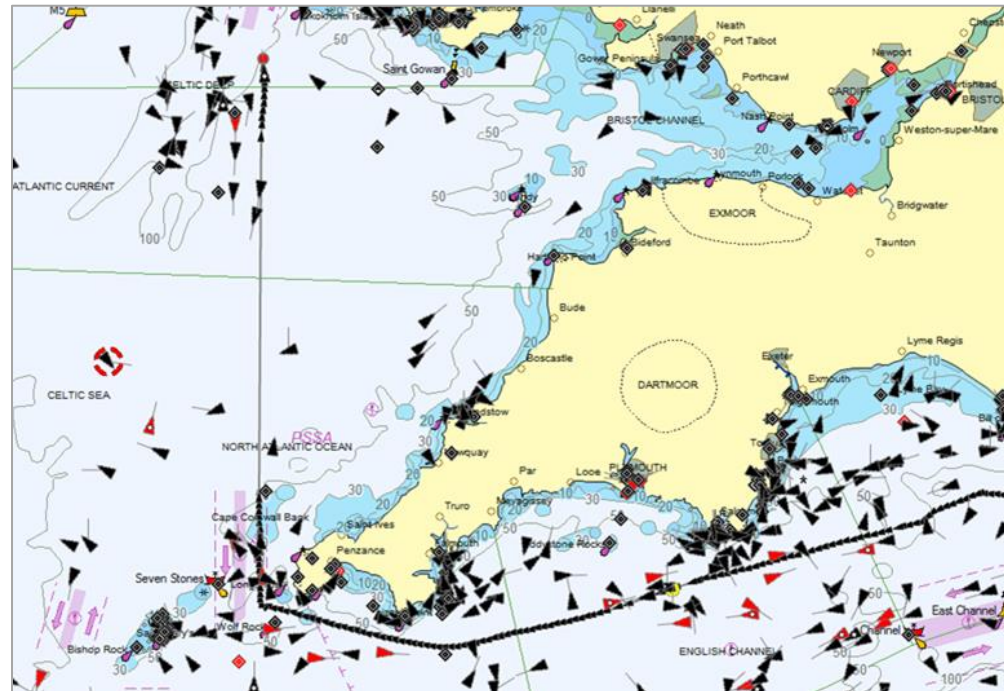
Agenda item 9.4.4

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Department 3: Simplification/Unit 3.3

Videoconference / 25 May 2021

# Background

- Article 4.4 of the IFCD: SSN messages are retransmitted to the central SSN system when communications and/or systems have recovered...
- If data, even being stored by the national systems, are not resent to the Regional Servers (RSs) after the recovery:
  - A “data hole” in the RSs and MSs applications and databases
  - A “data hole” in the SEG application and SSN databases



# Actions taken

- EMSA/NCA/ICG meetings on regional AIS servers
  - Three versions of the “proxy” software
- Harmonisation of the NPR main functionalities - in the SLAs
  - Automatic buffering by NPRs for at least 12 hours or equivalent
  - Data automatic resending after the recovery
- Retransmission of data stored by the national systems
  - solution by the NCA for NSATL/HELCOM
  - solution by the ICG for MAREΣ



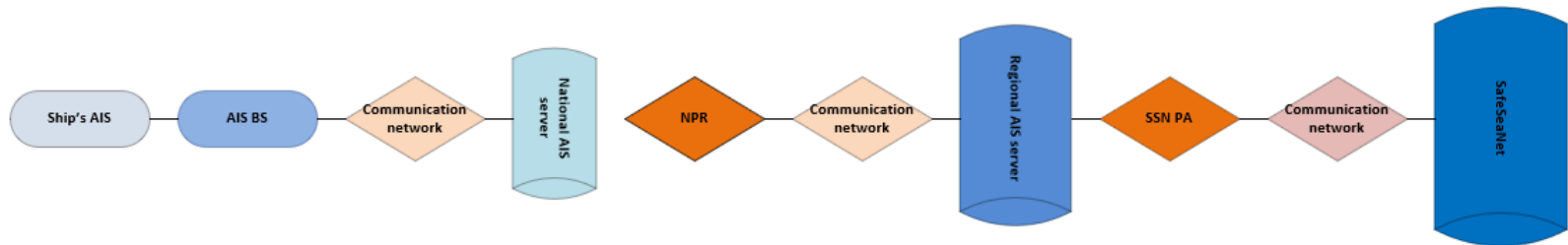
- **NSATL / HELCOM solution:**
- Data resending to the RS through the CSAP User Proxy.
- MS tasks:
  - Extract AIS data from its system for the disconnection period;
  - Prepare data in the required format and volume;
  - Save extracted and prepared data in uniquely named daily files;
  - Place data files in the specified proxy folder.
- NPR tasks:
  - Monitor availability of new files in the proxy folder;
  - Process received files;
  - Check the provided data quality;
  - Insert the country origin information (if not provided);
  - Send the filtered data to the RS system;
  - Delete the received files from the folder.



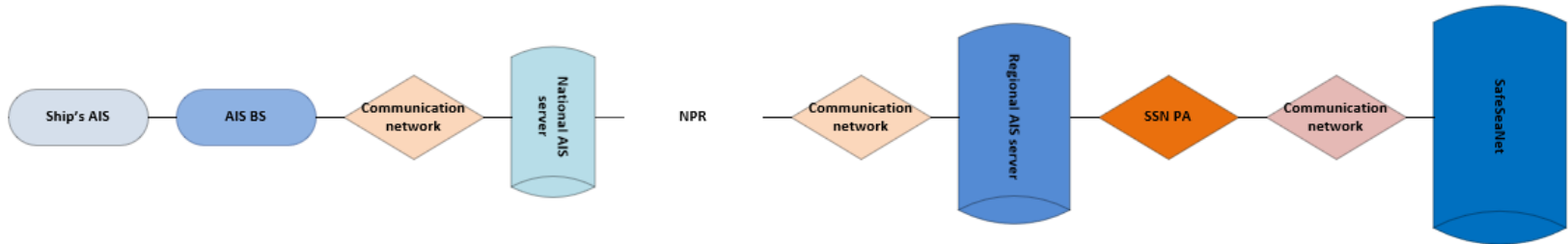
- **MAREΣ solution:**
- Data files transfer to the RS admin. through FTP Server
- MS tasks:
  - Extract AIS data from its system for the disconnection period;
  - Prepare data in the required format and volume;
  - Save extracted and prepared data in uniquely named daily files;
  - Contact MAREΣ 24/7 to agree the data transfer;
  - Transmit the created files to MAREΣ via FTP Server;
  - Inform MAREΣ 24/7 when the process is completed.
- MAREΣ admin. tasks:
  - Receive and process the MS submitted files;
  - Upload the received data;
  - Check the provided data quality;
  - Insert the country origin information (if not provided);
  - Send the filtered data to the MAREΣ system;
  - Delete the received files from the FTP server;
  - Confirm the data reception and uploading to the MS.

# AIS data manual resending to RSs

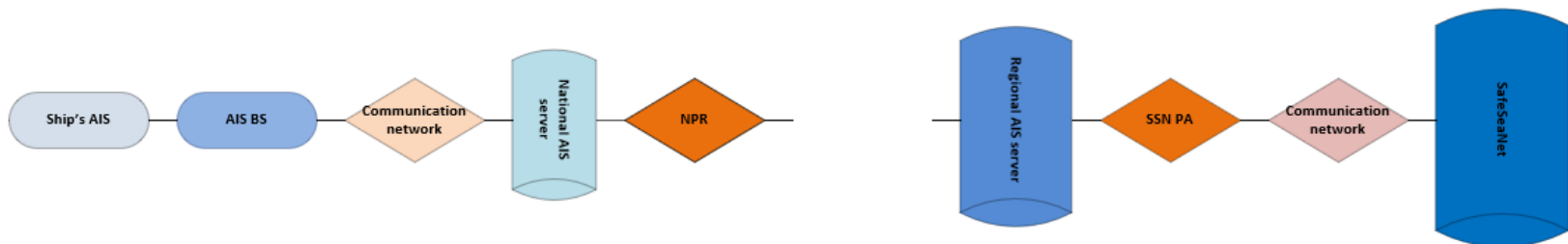
- connection between the national server and the NPR server was lost



- the NPR was not operational



- other cases when the stored data shall be retransmitted
  - (e.g. disconnection time > NPR buffering capacity)



# Required

- The MSs capabilities to retrieve data from their DBs and prepare data in the required format (depending the RS solution).
  - Standard NMEA format with an IEC TAG Block containing, at minimum, a timestamp in the 'c' parameter for every sentence
- MSs in NSATL and HELCOM RSs shall upgrade / install a new version of the CSAP User Proxy.
- Shall be agreed and tested at the regional level.
  - The data format compliance (MSs tests with RSs).
  - Data uploading tests (by RSs).
- MSs to inform EMSA and RSs about their capabilities to perform the required actions (SSN/LRIT 9.4.4).
- The implementation dates will be defined.



# Clarifications

- Data resending is initiated by the MS (considering IFCD requirements).
- EMSA MSS informs MSs (NCA 24/7) about the detected problems. However, MSs shall monitor the performance of national systems.

**From:** Maritime Support Services (EMSA) <[MaritimeSupportServices@emsa.europa.eu](mailto:MaritimeSupportServices@emsa.europa.eu)>  
**Sent:** 04 December 2020 12:02  
**To:** '24/7'  
**Cc:**  
**Subject:** [SRC-IMG-001] - INCIDENT - Incident - - T-AIS ticket = MSS-42550

Dear Madam/Sir,

Please be advised that Maritime Support Services team has just detected:  
Your National SSN is not providing AIS data (STAR) to Regional Proxy MARES

Could you investigate this problem and keep us updated as per SafeSeaNet Common Operational Procedures (V2.0 page 7 points A and C)? In addition, please note that, as per point G, notifications not provided during the outage must be stored and sent when the failure is resolved.  
Please be reminded that, as per IFCD chapter 4.3, the National SSN system shall be maintained with the maximum permissible period of interruption of 12 hours.

Kindly acknowledge the reception of this email.

Thank you in advance.

Best Regards,

  
Maritime Support Services  
Vessel and Port Reporting

- The dataset to be resent – in coordination with RSs.

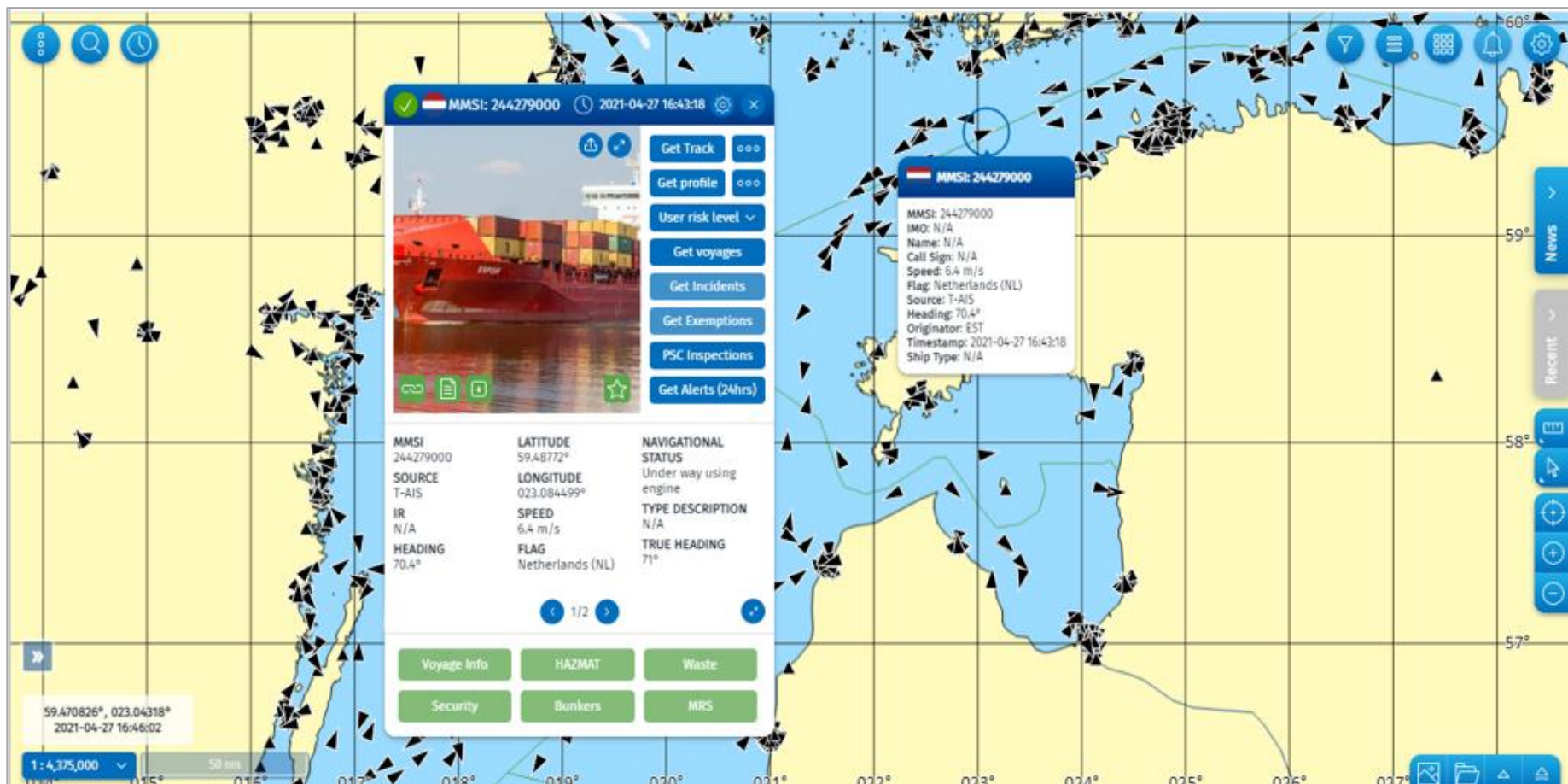


# AIS data quality



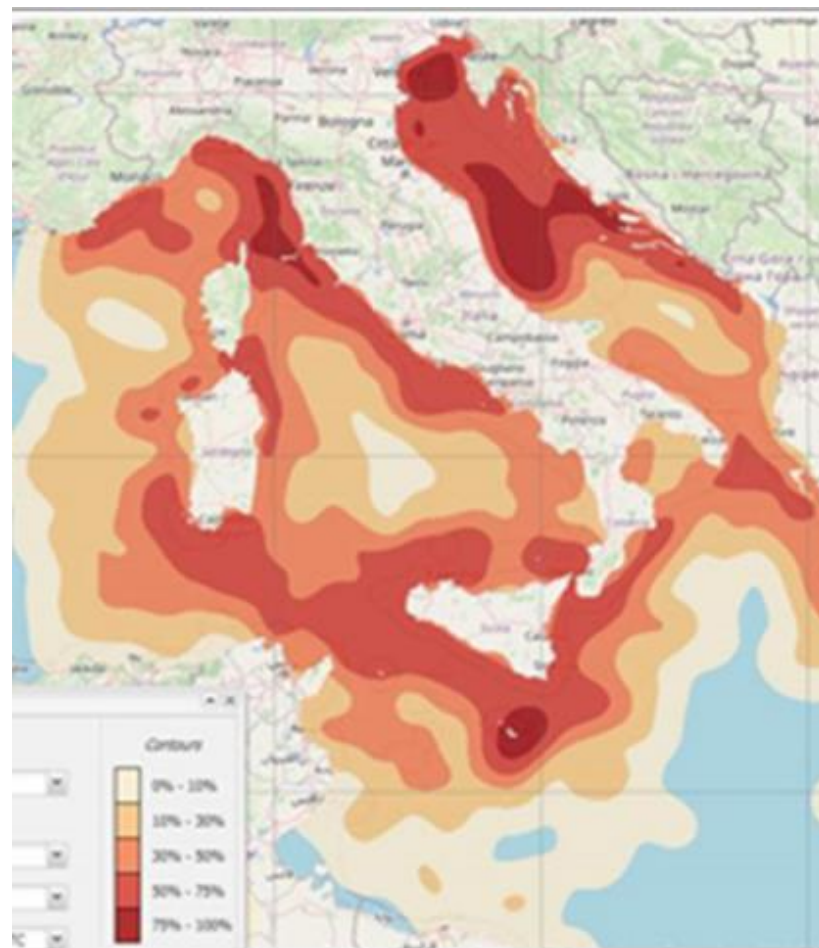
- A number of ships with only one position have been recorded in OVR.
- Often MMSIs do not correspond to any active vessel.
- Reported by all AIS networks.
- 5<sup>th</sup> EMSA/Italy/Norway meeting on the RSs (Jan. 2021) agreed:
  - the principle of data integrity will be respected and the data will not be filtered by RSs or EMSA;
  - EMSA, Italy and Norway will continue evaluate how to improve “fake” data detection and presentation, without polluting databases.
- EMSA will send a short questionnaire to the NCAs:
  - Is the national AIS network capable to filter a non-correct AIS information?
  - If YES, then what filters can be applied?
  - Is any filtering already applied?

# AIS data quality



# Recent developments

- AIS coverage analyser in MARES (SSN/LRIT 9.6.3)
- AIS 2<sup>nd</sup> Data centre in NSATL/HELCOM
- Data resending through the STAR RH solution for RSs
- STAR RHs “switch” in EMSA







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