

Study on metadata¹ for ship movements in European ports and terminals

1. Introduction

The European Maritime Safety Agency (EMSA) was established under Regulation (EC) n°1406/2002 for the purpose of ensuring a high, uniform and effective level of maritime safety and prevention of pollution by ships. In this framework data collected on ship movements between ports and terminals and data associated to these calls can be used in various areas for maritime safety, such as port state control, ship reporting, pollution response, or risk and formal safety assessment analysis.

Subject to the EU Directives, the shipping industry² reports specific information to the Port Authorities prior the vessel's entry into ports of the Member States. EU Directives foresee different type of reports: Port notifications (Article 4 of Directive 2002/59), Hazmat notifications (Article 13 of Directive 2002/59), Ship (MRS&AIS) notifications (Article 9 of Directive 2002/59), Security notifications (Article 4 of Regulation 725/2004), Waste notifications (Article 12 of Directive 2000/59) and IMO FAL forms (Directive 2002/6/EC)³, all of these hereinafter referred as to Port Clearance reports.

To receive and process the mandatory Port Clearance messages, Member States have defined messaging mechanisms used for the different types of reporting. In some Member States a central system for data collection has been implemented whereas in other a decentralized systems exists through the ports acting as Local Competent Authorities (LCA). These Port Clearance reports (except the IMO FAL forms) have to be collected, assessed and validated in order to be exchanged with the other competent Authorities of the Member States according to the procedures and rules defined in the framework of the Community vessel traffic monitoring and infrastructure system named SafeSeaNet (SSN). The IMO FAL forms have to be collected by the port Authorities but there is no requirement to exchange them with the Authorities of the other Member States.

In the framework of the SSN, EMSA suggested to the Member States to open their systems to Electronic Port Clearance data providers with a view to facilitate the reporting process for the further development of the "one stop shopping"⁴ and its integration into SSN. In particular Member States were invited to develop an electronic Notifications (e-N) application, accessible via the World Wide Web, to allow the persons authorised to submit notifications (e.g. ship's agents, operators or masters), with the means of fulfilling the notification requirements of SSN, the Directive 2002/6/EC as well as other possible national notification requirements.

In order to analyze and get a clear overview of various methods European ports and terminal use to collect these data and evaluate the harmonization process in the European Union the Agency has decided to launch an external study on the subject. Knowing better the concrete situation will allow EMSA to propose solutions to facilitate the harmonisation process and assist the Member States in complying with the requirements of the EU Directives.

¹ Metadata describe statistical data and to some extent processes and tools involved in the production and usage of statistical data. Source: Economic Commission for Europe of the United Nations (UNECE), "Terminology on Statistical Metadata", 1995.

² With "shipping industry" is meant the ship owner, agent, master, operator or other source authorised to send port clearance report to the port Authorities.

³ These reporting formalities refers to IMO FAL forms 1 "general declaration", 3 "ship's stores declaration", 4 "crew's effects declaration", 5 "crew list" and 6 "passenger list".

⁴ The term "One Stop Shopping" (UN/CEFACT Recommendation 33) has been used to describe facilities that make it simpler to deliver and receive (Electronic Port Clearance) EPC reports

2. Objective and scope of the study

2.1 Objective

The objective of the study is to collect data on the procedures used by the port Authorities and terminals for gathering and processing data on ship movements, including Port Clearance reports required by EU Directives and to evaluate the availability of this information through descriptive metadata (which is data about data).

The study shall focus on practical considerations in order to obtain a clear understanding of the way ship movements including Port Clearance Report are recorded, by visiting at least 40 European ports and terminals. These metadata should be collected in a harmonized way and presented in a format that will be commonly defined with EMSA at the beginning of the study.

2.2 Scope of the study

2.2.1 Project description

The contractors will address ports and terminals and visit/interview a minimum representative sample of 40 of them.

After the completion of each visit the contractor should prepare a descriptive visit fiche that will contain at least the following items:

- Overall description of Authorities (within the specific port boundaries) responsible or involved in collecting, processing or receiving information on ship movements including Port Clearance reports. The contractor should also explain how information on ship movements is transmitted to Customs.
- A summary of legal background for the Port Clearance data collection in Member States.
- Concrete and precise information on data availability, data format and storage, data collection, data process and data dissemination, including the uses of the AIS data.
- How information on cargo transported is processed especially for High Noxious Substances (HNS) and oil. Nomenclatures used will be specified.
- Description of quality checks of data collected on ship movements. History in change of data recorded (e.g. for statistical purposes) should be taken into consideration.
- Description of human and technical resources devoted to data collection. In case of application of the e-N solution, basic hardware and software requirements for the shipping industry end users (agents, masters or operators) should be described. Specific security measures applicable to an e-N transaction should be presented.
- How did the visited ports design and develop the "one stop shop solution" application (through e-N).
- How incidents that occurred during ship's movements in ports/at sea are registered.
- Analysis of how AIS affects the procedures in ports and terminals to collect and store data on ship movements.

The structure of the visit fiches should be identical in order to compare the situation of all the ports and terminal visited and picture the situation at the European level.

2.2.2 Ports and Terminals from where information should be collected

Ports and terminals to visit in the European Union will be commonly defined with EMSA at the beginning of the study.

2.2.3 Organisations and other bodies that may be consulted

The study may require taking into consideration the flow of information transmitted to Maritime Administrations by ports and terminals.

3. Contract management responsible body.

The European Maritime Safety Agency – Unit D, in charge of Implementation EU Maritime Legislation – will be responsible for managing the contract.

4. Duration

10 months