



Meeting Minutes

1st IMDatE user workshop

7 May 2014

1st Integrated Maritime Data Environment (IMDatE) User Workshop Meeting (UW#1)

Contents

Update and overview of the IMDatE Member State pilot project	3
Member State operational feedback on the pilot service	4
Belgium and Germany	4
Spain	4
France	4
Greece	5
Ireland	5
Italy	6
The Netherlands	6
Sweden	6
The United Kingdom	7
IMDatE: releases and new functionalities	8
Discussion	9
Roundtable and meeting conclusions	10

Chairman welcome and opening

Marin Chintoan-Uta, Head of Unit C.3: Satellite based monitoring services, EMSA

EMSA opened the meeting by welcoming all delegates. The willingness of both member states and EU bodies to share experiences was recognised and appreciated. The agenda of the meeting was outlined.

Update and overview of the IMDatE Member State pilot project

Samuel Djavidnia, Project Officer, Unit C.3.1: Integrated Maritime Services

To introduce the workshop, a presentation was delivered which recapitulated the background of the pilot project and informed participants of developments since the IMDatE platform was opened for Member State pilot projects in April 2013. In the period of a year, the number of Member States volunteering to take part in the pilot increased from 6 to 12, and the absolute number of users has increased from 25 to 125. There was recognition that many of the services provided by IMDatE have now made the transition from being pilot services under testing, to fully-fledged integrated maritime services (IMS) which are used on an operational basis for daily tasks. These services:

- provide regional and domain perspectives;
- enhance collaboration between national level organisations and between Member States;
- increase availability of information, resulting in improved domain awareness; and
- directly address operational user needs.

EMSA explained how information and communication relating to the services, and provision of access to them, is set up at Agency and Member State level. At EMSA, there is one point of contact for requests for new user accounts, new functionalities/features, automated behaviour monitoring, training, new data sources, and system-to-system interfaces. In future, it is expected that 24/7 user support will be provided by the Agency's Maritime Support Services (MSS). At Member State level, one point of contact is appointed by the national competent authority (NCA) to handle requests for new user accounts, new functionalities/features, automated behaviour monitoring, training, new data sources, system-to-system interfaces, etc.

It was noted that it was particularly important for the Member State point of contact to clarify relevant access rights policies for users within his/her Member State, and to communicate these to EMSA when making a request for a user account.

In relation to the data and access rights policy, the following principles were asserted:

- Access rights as established by Member States under the relevant Directives, agreements, and applications must be respected.
- The sharing of non-sensitive information should be encouraged whenever possible. The added value of having an integrated maritime service lies partly in the advantages inherent in sharing information between the various stakeholders.

The access rights related to different types of data was presented, including: LRIT, satellite AIS, CleanSeaNet, SafeSeaNet, vessel monitoring system (VMS) data, data from patrol assets, met-ocean data and other miscellaneous data.

An overview was then given of the features of the last release version.

Past and upcoming training and information meetings were discussed. It was reiterated that if Member States are interested in receiving training, or in hosting information sessions, they should send a request to Marin.Chintoan-Uta@emsa.europa.eu and Samuel.Djavidnia@emsa.europa.eu, specifying: the type of training session and/or information meeting; number of participants attending; and approximate dates.

Member State operational feedback on the pilot service

The 12 volunteer member states involved in the pilot project (BE, DE, ES, FR, HE, IE, IT, MT, NE, PT, SE and UK) were provided with the opportunity to give feedback on their experiences to date.

Belgium and Germany

Belgium and Germany both joined the service very recently. They thanked EMSA for the opportunity to participate, and related that they are in the process of setting up access for users.

Spain

The Spanish Maritime Administration Safety Agency (Directorate General of Merchant Marine) gave a short presentation on behalf of Spanish users. Currently there are 3 different IMDatE users in Spain: The Spanish Search and Rescue Agency (SASEMAR), the Spanish Navy and the Maritime Administration (Directorate General of Merchant Marine).

They stated that the system is used for search and rescue (SAR), safety purposes, traffic monitoring and surveillance. Some examples of how the service has been used to achieve these objectives were given, including one SAR case, and one traffic monitoring case.

Spain's main observation regarding the latest version was that there has been a noticeable improvement in speed. However, there are still problems logging in with Chrome, it is not possible to use Internet Explorer, and there are some minor timelags with the map interface. They stated that in future access to VMS data and provision of GIS tools would be useful.

France

France's presentation (delivered by EMSA) informed the participants that the IMDatE service is currently being used by two centres in the Channel (Jobourg and Gris-Nez). They observed that IMDatE can provide a comprehensive overview of a given situation area, but is not really appropriate as a stand-alone vessel traffic service (VTS) monitoring tool, as the update is not frequent enough for anti-collision checks. However, France is looking into system-to-system solutions to integrate the various data sources. The time replay tool was considered advantageous for pollution monitoring purposes.

In terms of future requirements, France requested: that the single sign on (SSO) for IMDatE and CleanSeaNet be extended to SafeSeaNet; more possibilities on the graphical interface for customising information (e.g. ship colour according to navigational status); enrichment of data available when consulting vessel information (more complete SafeSeaNet data, Paris MoU data, waste notifications).

France provided feedback on the user information meeting held in France, which was considered to have been very useful. France will explore the advantages of IMDatE with other administrations who have an

interest in ship monitoring, e.g. customs, immigration, navy. 25 new users have been added to the system, and have committed to report back on their experiences by September 2014.

In the question and answer session, France reiterated the importance of IMDatE in fostering an environment for different administrations to work together. Having access to varied information on one single screen also helps create a community of shared information and exchange, in which different users can discuss situations together based on access to the same information.

France expressed an interest in integrating local radar information, to which EMSA replied that testing for integrating radar information would soon be carried out.

Greece

Greece was one of the first Member States to participate in the service. Greece does not currently have a large number of national users, but is now intending to give access to the Hellenic navy, who will then also be able to give feedback.

The presentation by Greece covered types of use they make of the system (SAR, environmental, law enforcement, accident investigation), along with some concrete examples of operational cases.

In terms of feedback in the latest version, Greece stated that they had problems with the OpenStreetMap display. Future data needs included SafeSeaNet data and meteorological-oceanographic data. In terms of new functionalities, Greece would like vessel identification information, timestamps, and voyage details displayed on request on the map.

Ireland

Ireland's presentation included a review of practical experiences of using the system. Screenshots of the interface were displayed, with particular attention drawn to positive aspects (e.g. key to vessel symbols, inclusion of Irish exclusive economic zone, EEZ), along with concrete suggestions for improvements (e.g. possibility of multiple clocks to display different time zones).

Ireland then presented case studies in which IMDatE had been used operationally.

Issues with the current version of IMDatE were raised: the yellow halo around the selected contact can be difficult to distinguish; some of the satellite AIS timestamps are many hours old; the Irish Coast Guard (IRCG) helicopter AIS is not yet visible in IMDatE; the log in process is cumbersome; some terrestrial AIS contacts do not display in IMDatE; there are minor problems logging in with Chrome and Firefox. However, it was noted that the new version is much better than the previous.

For future use, the incorporation of a radius distance tool was suggested. Ireland would like the inclusion of IRCG helicopter AIS, higher visibility of selected contacts, and a faster update rate for satellite AIS time stamps.

During the question and answer session, EMSA provided a brief update on the cooperation with the European Space Agency (ESA) for provision of satellite AIS. The date of the timestamps and update rate depends to a large extent on the number of satellites in orbit which are transmitting information to the system. Initially, information was only provided by the Norwegian satellite, AISat-1. Now IMDatE receives data from six satellites, four of which are ExactEarth satellites. The overall number is gradually increasing.

ExactEarth intends to launch another six satellites (bringing the total number from ExactEarth to 10). ESA is also due to launch three micro-satellites, which will be high-performance in comparison with those currently available, and will provide data from November 2015. In general, the situation is due to improve over coming months and years.

Italy

Italy first presented a number of different use cases, providing concrete examples of how IMDatE had been used in practice. These included: the monitoring of vessels with 'not reporting' LRIT status; monitoring in the Red Sea; use of satellite AIS for fisheries control activities; and examples of satellite AIS tracking using the IMDatE platform. It was noted that satellite AIS data is an important resource for the Italian Coast Guard operations, and they are currently working with EMSA to establish a system-to-system connection to deliver data to the national traffic monitoring platform.

Italy then presented the results of a number of IMDatE behaviour monitoring features which they had helped to test, including the area surveillance tool and speed change alert. These need further refinement, but were felt to be promising.

In terms of feedback on the latest version, Italy felt that it was a great improvement on the previous version offering a faster and better performance. With regard to data needs, Italy mentioned AIS Search and Rescue Transmitter (AIS-SART), meteorological-hydrographical and system-to-system satellite AIS (which is currently being implemented).

Italy gave positive feedback on the IMDatE training received.

In the question and answer session, the issue of meteorological and oceanographic data – which had been mentioned by Greece too – was raised. EMSA stated that to provide this information through IMDatE, the Member States should identify sources of such data, e.g. through national meteorological offices, from buoys transmitting information, and facilitate delivery to EMSA. EMSA is able to provide this information through IMDatE, but the initial sourcing is dependent on users.

The Netherlands

The Netherlands presented the recent experience of using a layer in IMDatE to check all vessels entering and leaving a defined polygon for security purposes, during the 2014 Nuclear Security Summit in the Hague. IMDatE was useful in supporting authorities monitoring all vessels entering the zone.

In future, the Netherlands would find it useful to have risk-analysed scoring of vessels (for example, based on where they have come from); a means to mark vessels which have already been investigated; and integration of Coast Guard radar. On this latter point, the Netherlands remarked that there had been a number of requests from users for more data, for example radar, but that it is recognised that there is a trade-off between data volume and speed.

Sweden

Sweden stated that they had joined the service only recently, and that there would be an IMDatE information meeting in Sweden in May. Sweden has advanced tools for maritime surveillance at national level, and would be particularly interested in getting system-to-system information to supplement these.

Depending on the administrations involved and their various responsibilities, decisions need to be taken on to what extent and how to use IMDatE, and in conjunction with which other tools.

Sweden also mentioned that it would be useful to get all available information from SafeSeaNet and THETIS in IMDatE, particularly in order to address accidents and incidents. They also inquired about the possibility of obtaining or allowing others access rights to data 'on the go' – i.e. if an incident occurs and the information has to be passed to another Member State without delay, it would be useful to be able to do so without going through a process of granting permissions.

EMSA responded that technically these requests are possible to satisfy, but that issues related to data access rights are sensitive and need to be handled carefully. The policy/governance elements should be discussed and decided by the data owners. With regard to THETIS, information exchange is something which would have to be discussed with the Port State Control community. There are no specific technical issues that limit this from happening and IMDatE has demonstrated that it is possible to apply the respective access permissions.

EMSA also emphasized that IMDatE is not in competition with any other systems, or with any national systems, but aims to add value where possible, by providing information and services in a tailored way to each user. In this context, providing information effectively on a system-to-system basis is just as important as providing information on the graphical interface – it is entirely at the discretion of each user what information they require and how they would best like to receive it.

The United Kingdom

The operational experience of the UK using IMDatE was presented. The UK mentioned positive feedback from various of the different users of the system. Examples were given of how the system has been used for pollution detection, and during a fire on board a ferry. In the latter example, IMDatE was used as a primary information system, due to an issue with the display of AIS in the national system, demonstrating how IMDatE can be used not only for additional information, but also as a back-up in case of problems with other systems.

The UK then presented various of the lessons learnt regarding use of the system: for example, while on some occasions the update rate of vessel position information may be more frequent than the national system, sometimes it can also be less frequent – which means that the 'fuse and smooth' function could give a false impression of the vessel track, and should not always be utilised.

The UK has also been testing the newly implemented alert features. The UK feedback on the 'area' alerts was positive, but more reserved regarding the 'speed change' alert.

The UK reported that they had asked for a meteorological feed from the UK Met Office.

During the question and answer session, the behaviour monitoring features being introduced in IMDatE were discussed in more detail. These are still in an early phase, and all feedback is welcomed. With regard to the speed change, it was noted that there are areas of busy traffic where changes in speed happen frequently. In these areas, the parameters should be adjusted in a way which would make sense (i.e. only request notifications for speed changes of more than 50%). Special thanks was given to the UK and Italy, who have been testing these features. Any Member State who is also interested in activating these new alert features should contact EMSA to do so.

France noted that IMDatE has a number of functionalities, and is developing more. France speculated that there may be functionalities which France will not have to develop in the national system in future, as they will be provided through IMDatE. EMSA responded that it is important to ensure that IMDatE does not duplicate any developments that are made at national level, but adds value. At a technical and operational level, much is possible, and the exchange of experiences between Member States and EMSA helps guide developments. However, at a higher level the political and governance issues need to be discussed and decided. DG MOVE commented that through this joint exploration and sharing of experiences, it should become clearer what services are needed and how best to provide these. On the legal side, the Committee on Safe Seas and the Prevention of Pollution from Ships (COSS) is considering how best to link new developments to the legal framework. The legal basis needs to be clear, but flexible, and linked to existing legislation. It is hoped that the upcoming proposal for a further revision of Directive 2002/59/EC (as amended) will clarify some of the issues.

IMDatE: releases and new functionalities

Justino de Sousa, Andrea Pelizzari and Oscar Rodriguez Villaamil, Unit C.3.1: Integrated Maritime Services

EMSA delivered an overview of the IMDatE system and planned developments. The development process is currently based around the use of 'sprints': smaller but more frequent software updates. As new requests and requirements are expressed, they are incorporated into the future development pipeline, with priority given to those that will benefit many users.

The current version, IMDatE Release 1.0, provides Member State users with:

- global satellite AIS data from ExactEarth, through the graphical interface and through system-to-system interfaces;
- automated behaviour monitoring;
- improvements in the graphical interface;
- bug fixes and stability improvements.

There have also been a number of other improvements, which are not so immediately visible:

- new services/operations set-up for EFCA fisheries control activities and FRONTEX EUROSUR tasks;
- more flexibility in managing access rights at EMSA;
- distribution service for streaming out vessel position reports.

Release 1.1 (June 2014) will include: an enhanced SAR SURPIC, additional algorithms for automated behaviour monitoring, new GIS features, SafeTrx leisure boat reports, display of AIS-SART signals, data from patrol assets. Release 1.2 (September 2014) will include: SafeSeaNet voyage information, SafeSeaNet Hazmat details requests, and the final set of main automated behaviour monitoring algorithms. Release 1.3 (December 2014) is still being defined, but could include display of aircraft AIS reports, and receipt and processing of coastal radar via the Inter VTS Data Exchange Format (IVEF) interface, as well as other interim requests from Member States.

EMSA is also addressing a number of other issues with a bearing on IMDatE, such as bug fixes and reliability improvements, single sign on and common user management, and sharing of common data between applications.

A brief overview was given of the current status of satellite AIS data and access rights management, and of future developments in the area of access rights management.

A live demonstration was given of the new IMDatE features and functionalities: automated ship behaviour monitoring and the enhanced SURPIC.

Discussion

In the discussion that followed there were a number of questions from Member States. Some of the issues which were raised are outlined below.

Portugal asked what the geographical boundaries of terrestrial AIS are, given VHF radio signal limitations, and how to tell whether a last AIS position report was from terrestrial or satellite AIS. EMSA clarified that there is no 'map' of where AIS data can be received as it depends not only on distance, but also equipment, atmospheric conditions, etc. EMSA receives terrestrial AIS data from the regional and national servers. On the graphical interface, this is displayed in a particular colour scheme, which enables the user to see immediately whether the last position report for a vessel has come from terrestrial or satellite AIS. The last position report received of a particular vessel, whether terrestrial or satellite AIS, LRIT, or other, is always the one displayed.

With regard to information on recreational leisure craft, it was noted that usually these craft do not carry the traditional maritime equipment. Tracking these vessels is a new development, and is based, in the case of SafeTrx at least, on mobile phone technology.

Sweden requested more information regarding the single sign on, and regarding who defines access rights. EMSA explained that access rights are defined and provided by the Member States Operational Point of Contact and set by EMSA.

The question was posed regarding whether EMSA had considered linking with other external systems for maritime traffic. In Sweden, a single sign-on user of the national system gains access to internal and some external systems, which exchange certificates between environments. EMSA responded that a logged in user would have access to multiple applications, depending on the user access rights. Regarding certificates, it depends on which services are being referred to and what requirements the user has in place.

A number of Member States were interested in knowing more about the availability of VMS data. In reply, EMSA explained that there are currently two models for receiving and distributing VMS data, both based on the necessary access being granted by the Member State: 1) the Member State provides national VMS data directly via a dedicated interface (e.g. as Italy does); 2) the Member State requests that EFCA sends the VMS data belonging to that Member State to EMSA via a dedicated EFCA interface. Either way, the Member State decides whether to share their VMS data, and with whom. Once this has been authorised, and the VMS data is in-house in EMSA, it can then be integrated into IMDatE.

The question of oceanographic and meteorological data was raised again. It was emphasised that Member States should identify sources of such data, and provide it to EMSA in such a way that it can be displayed in IMDatE. EMSA is very willing to add such data to the system.

Information was given by EMSA on what layers can be provided to national systems and how, through machine-to-machine interfaces. It was stated that a standard set to be offered to Member States should be agreed.

In response to a question regarding possible frequency increase for the AIS data feeds, it was noted that there is a trade-off between different demands and impact on the system. At the moment, the rate is six minutes, but it could be changed in specific areas to have a higher rate for localised pictures. However, ideally the use of national systems should be promoted to give detailed local pictures with high update rates, and IMDatE should be used primarily as a tool for regional level maritime surveillance. The concept of IMDatE as a European level maritime surveillance tool was reinforced by EMSA. It can surpass what is available in national systems for providing a European picture, but will not serve the same purpose as a national system. The European Commission representative supported this statement, adding that IMDatE should not substitute national systems, but complement them.

Roundtable and meeting conclusions

During the roundtable, a number of Member States stated that the service was appreciated. Finland expressed interest in becoming an IMDatE user.

DG MOVE reinforced the importance of information sessions and training sessions for promoting proper use, and understanding, of IMDatE and its role and capabilities. All the points, whether technical or policy-related have been noted and will be taken into account in future steps.

In a final summary of the conclusions of the day, the following points were made:

- There is positive appreciation of the integrated maritime services delivered so far by IMDatE.
- There is strong support for further development of functionalities that can be used in daily operations.
- IMDatE is being used for a wide range of tasks including Search and Rescue, environmental monitoring, law enforcement and fleet monitoring.
- There is strong support for global satellite AIS feed.
- It has been shown that IMDatE is able to handle complex data access rights. However, there is a need to address governance issues in general.
- A number of operational and technical requirements have been requested. Some software issues have been raised. EMSA will propose a schedule to address these.
- New requirements include:
 - Future integration with remaining SafeSeaNet data sets;
 - Port state control information;
 - Additional GIS features.
- Requests for new data sources include:
 - Meteorological-oceanographic information;
 - Ship-borne radar;
 - Coastal radar;
 - Patrol assets (aircraft and vessels).

The information presented at the meeting, and the subsequent report, will be presented to the SafeSeaNet High Level Steering Group in June 2014. There will be a second IMDatE User Workshop held in October or November 2014; the date will be communicated in due course. Member States were also encouraged to communicate their needs for information sessions or training.

Thanks was given to the workshop participants for their active and fruitful discussions, and for their ongoing contributions to and feedback on the development of IMDatE.