EMSA

European Maritime Safety Agency

Workshop Report

10th Mediterranean AIS Expert Working Group

Held in Rome on
June 26th, 2012

Introduction

The 10th Workshop for Mediterranean Sea EU Member States and Expert Working Group (EWG) on the Mediterranean AIS Regional Exchange System took place in Rome on the 26th June 2012. All the documents for the meeting had been circulated prior to the event and made available through the EMSA website.

The list of participants is attached as **Annex 1**. A copy of the Agenda is included as **Annex 2**.

The meeting was attended by delegations from: EMSA, Bulgaria, Cyprus, France, Italy, Malta, Montenegro, Portugal, Spain and Slovenia; apologies were received from Croatia, Romania and Greece for not being able to take part. Representatives of REMPEC, contractors for the Italian Coast Guard and Ministry of Infrastructure and Transport of Italy have also participated.

Mr Lazaros Aichmalotidis of EMSA chaired the meeting.

Objectives

The main objectives of the meeting as presented by the Chairman were to:

- Introduce system improvements and developments (from Italy);
- Discuss on the developments in the Mediterranean countries including the future participation of third countries.
- Discuss on future perspective for MARES.

Programme

1. Opening address

The participants were welcome by Admiral Pierluigi CACIOPPO, Commandant of the Italian Coast Guard. He congratulated all representatives on the remarkable achievements and urged to continue improving the system. Currently, there is an interrogation on how MARES role can be extended to include the provision of data and services at regional level. The possible areas covered under this new role are fisheries monitoring and vigilance, illegal immigration, and safeguarding and protecting the marine environment. The Admiral has praised EMSA's involvement in the project and believes the capabilities of MARES can be further enhanced. He furthermore underlined the ITCG commitment to the development of MARES following "a clear roadmap and political governance".

EMSA thanked Italy on behalf of the EWG for the hospitality and the Admiral for sharing his vision with the group. Then the chairman started reviewing the objectives referred to above.

The EWG **approved** the agenda.

2. Approval of the minutes/report from the previous meeting (MAREΣ 9/1)

EMSA introduced the report/minutes of the previous meeting of the Group, noting that no further comments had been received. The EWG **approved** the minutes of MARES 9.

3. MAREΣ network monitoring report (MAREΣ 10/2)

Italy illustrated the general activities carried out by MAREΣ throughout April 2011 to March 2012 in terms of amount of vessels monitored per month, AIS information gathered from each participating Country, etc. The main points of the activity are summarised as follows:

3.1 MARES malfunctions/incidents

During the reporting period, 86 network malfunctions (incidents), involving national proxies and requiring a human intervention in order to restore normal operations, were reported by MAREΣ. The reported incidents were mainly due to breakdowns in communications between the MAREΣ Core application and the national proxies. All of these incidents had an effect on the information flow and an impact on the general functioning of MAREΣ.

EMSA **invited** the Member States to regularly carry out appropriate inspections to ensure that the established communication links meet the requirements of Directive 2002/59/EC.

3.2 Incident processing time

MAREΣ monitored the availability of links, including the connection status of national systems, the exchange of AIS notifications with MAREΣ and the SSN central application. During the reporting period, a number of significant downtimes were detected. The total downtime was measured to 747h and the malfunctions processing time varied from 4 - 173h per month.

3.3 Minor incidents

The durations of minor communications breakdowns between MAREΣ and national proxies were very short (from msec to few min) and were automatically restored by the MAREΣ Core.

Cyprus said that they will verify the reasons of the high number of malfunctions and proposed setting an e-mail addresses (point of contact – **Annex 3**) for malfunctions and for other issues (focal point – **Annex 4**). Italy confirmed that the each MS is able to view the monitoring status of the proxies and informed that the next proxy applications will enable the storage of data in each national server until the connection retrieval (thus avoiding minor breakdowns to cause loss of data). EMSA **highlighted** the need to read beyond the numbers and proposed carrying out further analysis to understand the reasons of the high number of minor breakdowns.

The EWG **agreed** Italy to coordinate the task of setting new e-mail addresses: point of contact for malfunctions and a second for other issues **(Action Point 1)**.

4. MAREΣ progress report (MAREΣ 10/3)

Italy presented some improvements to the software and network architecture recently introduced in MAREΣ as follows:

4.1 Data quality monitoring

A software tool for improving data quality by validating AIS information against a reference database of national/central sources has been developed. EMSA suggested each MS to update their own reference database, export it in the excel format file and then send it to Italian Coast Guard or to update directly the reference data base.

The EWG **agreed** that will Italy contact the MSs to explain how every MS can access the DB in the form of "xls files" **(Action Point 2)**.

4.2 New proxy release

The MARES 9 meeting (Rome, 2 December 2010), the EWG agreed to improve the proxy architecture by using a new proxy web-based application. Italy provided the final release to all of the participants and the installation was carried out without problem.

4.3 MAREΣ duplication – Disaster recovery

As a follow up to the signature of a Service Level Agreement (SLA) between EMSA and the Italian Coast Guard, a disaster recovery server has been recently installed in Fiumicino. This additional server is going to improve the MAREΣ network availability and performance.

Italy proposed a timetable (see Annex 5) for the new proxy installation (NAISP) which will add new functionality to MARES application. During the meeting, Italy provided to all MSs a

hardware key with software installation. During the meeting, the MSs **agreed** on the date and other details related to their installation (except Portugal and Cyprus that will do so as soon as possible) and Greece/Romania that ware absent.

The EWG **agreed** that Italy will coordinate the installation of the new NAISP and will contact all the MSs concerned **(Action Point 3)**.

4.4   Dead reckoning track

Italy started to improve its AIS national server with a "Dead Reckoning" (DR) service which enables the system to estimate the probable location of a vessel that is no longer being monitored by AIS-based shore systems.

The EWG **agreed** that Italy will present the results of DR service at the next EWG meeting **(Action Point 4)**.

5.   Coverage and Base Station management (MAREΣ 10/4)

EMSA mentioned that the Council Resolution of 1st October 2007 recognises the value of the AIS networks as a source of data for LRIT purposes, and the role of the AIS master plan in this respect. The idea of developing of an AIS master plan was mainly to reduce the costs related to the acquisition of LRIT data (they may be avoided whenever it is possible to obtain similar, or more detailed, information via national, regional or EU AIS networks). However, the interest of MSs to study these ideas is decreased because these costs are supported by EU.

The EWG group **agreed** to put on hold the discussion on the AIS coverage and Base Station management.

6.   Updates of participating

Italy: the Italian AIS network, based on 50 base stations, will be enhanced by the end of 2012 with the installation of 6 new AIS base stations, in order to provide better AIS coverage in important sea areas (Augusta, Isola di Ponza, Olbia, Pescara, San Benedetto del Tronto and Livorno port approach). Also the new Italian AIS software, based on SOA architecture, is under development and by the end of the 2012 it will become fully operational.

Spain: the AIS network in going to be updated (renew both software and hardware). Spain asked a new proxy for the second server.

Cyprus: the AIS network remained the same, no changes has been done recently.

Rempec: updated the meeting on the latest developments of the Safemed II Project. Jordan officially signed the Agreement in February 2012 while Israel reported that because of some legal issues, they cannot share their AIS data. Nevertheless, Jordan will be supplied with one AIS shore-based station, which will be connected to the MARES. Israel is still willing to participate in this Pilot Project of AIS data sharing amongst the Safemed beneficiaries and works to resolve their legal issues.

Montenegro: the AIS network is composed by 2 BSs coveraging completely the coast, and exchanging data with USA and IALAnet. Testing with MAREΣ produced also positive results. Two additional BSs will be installed within the scope of VTMIS project.

Slovenia: all component software have been moved on virtual machines.

Malta: the AIS network works properly, but the improvement of the BSs coverage will be considered.

Bulgaria: a new provider with new IP and a greater bandwidth has been chosen. Bulgaria is exchanging data with the IALAnet and will install 5 new AIS base stations to provide better AIS coverage.

France: integration of SAT AIS data in National AIS network is in a development phase.

Portugal: the mainland coast is totally covered by 11 dual base stations (Active + Hot Standby) high availability AIS network feeding MARES through 2 proxies installed on a disaster

recovery architecture. Madeira and Azores Islands AIS Network connection is expected to be concluded by the end of September.

7.   MAREΣ II development (MAREΣ 10/5.1)

Italy proposed the introduction of a Service-Oriented Architecture (SOA) in order to allow for maximum scalability/expandability of MAREΣ and to enhance the capabilities of the regional server. EMSA appreciated very much the new idea and the fact that the new architecture will preserve the same interface.

The EWG **took note** of the proposal.

8.   Adriatic-Ionian Initiative: sub-regional server (MAREΣ 10/5.2)

Italy presented the idea of setting up an Adriatic–Ionian sub-regional server to enhance the cooperation in the execution of various maritime functionalities in the Adriatic-Ionian region. The proposed monitoring and reporting system will comply with the principles below:

a.   The system will follow the logic of the Mediterranean virtual sub-regional server (which was agreed by the MAREΣ EWG, but never implemented).

b.   AIS data will be shared between Italy (east coast), Slovenia, Croatia, Montenegro and Albania within the framework of a new sub-regional server (enlarged in comparison with the previously agreed sub-regional server for Italy, Slovenia and Croatia).

c.   The AIS data of other MSs participating in MAREΣ will not be shared with the Adriatic countries. In the same way, the data from the Adriatic countries will be not be shared with the non-Adriatic countries.

d.   Italy will further develop the sub-regional server in order to be able to include the functionalities of the Mandatory Ship Reporting System.

e.   The proposed development will have no impact on the provision of the existing MAREΣ functionalities to participating MSs.

Montenegro stated that the proposal should simplify the work and increase the number of monitored and reported vessels in ADRIREP and proposed to incorporate also Bosnia Herzegovina.

Post meeting note: Croatia provided a written statement (dated 19 June 2012) supporting the above principles a, b, c and e reserving its position on point d which requires further discussions.

The EWG **agreed** Italy to set up the Adriatic regional server (as described in the MARES 10/5/2 document) with France expected to confirm their consent by the end of July **(Action Point 5)**.

9.   MAREΣ future perspectives (MAREΣ 10/6)

Italy presented the current status of the MAREΣ EWG and proposed its views on the actions needed to reinforcement the MAREΣ role in view of the challenges/perspectives developing in the Mediterranean Sea area. Italy referred to the existing possibilities for the geographical expansion of the MAREΣ e.g. within the SafeMed II project that aims at working on VTMIS with Neighbouring Countries in the area. MAREΣ could be used to support other types of users at regional level involved in fisheries monitoring (in cooperation with EFCA) and illegal immigration (in cooperation with Frontex).

Italy intends to explore the possibility of creating a consortium, with other MSs, in order to apply for funding in accordance with the terms of "Commission Implementing Decision C(2012)1447/12-3-2012 concerning the adoption of the integrated maritime policy work programme." Italy is considering to set-up of the Adriatic-Ionian regional server (ARS) with the participation of Slovenia, Croatia, Montenegro, Albania and possibly Greece. To further analyse the MAREΣ capabilities (e.g. geographical expansion, additional services, technical issues, governance, etc), a relevant study should also be considered.

Italy highlighted that the EWG meeting has achieved its objectives according to the mandate given in 2006. Now it would be necessary to define a clear roadmap and political governance based on a fresh mandate.

EMSA noted that the importance of MAREΣ is decreasing due to the lack of political backing and guidance. At the moment the EWG works independently from any governance body, and the MAREΣ activities mainly stick to technical issues. The role of the MAREΣ EWG is based on the terms of reference agreed by the 2nd Workshop (Brussels, 8th May 2006) and the EWG 9th (Rome, 2nd December 2010) acknowledged that the main objectives of the group have been achieved. The MSs have to discuss if the works of the EWG need to continue and in a positive case the possibility of establishing a permanent governance body should be explored.

The EWG **took note** of the proposals.

10. Meeting Follow-up Actions

a. Italy to coordinate the task of setting an e-mail address (point of contact) for malfunctions and a second one for other issues (paragraph 3.3).

b. Italy contact the MSs to explain how every MS can access the DB in the form of "xls files" (paragraph 4.1).

c. Italy will coordinate the installation of the new NAISP and will contact all the MSs concerned (paragraph 4.3).

d. Italy will present the results of Dead Reckoning service at the MARES 11 EWG meeting (paragraph 4.4).

e. France should confirm its consent on Adriatic - Ionian initiative by the end of July (paragraph 8).

f. Italy will explore the possibility of creating a consortium, with other MSs, in order to apply for funding in accordance with the terms of "Commission Implementing Decision C(2012)1447/12-3-2012 concerning the adoption of the integrated maritime policy work programme (paragraph 9).

12. Date of next meeting

The provisional date of the next EWG meeting (held in Rome or Lisbon) is March 2013.

Annex:

I) List of participants
II) Agenda
III) E-mail addresses of MSs point of contact
IV) List of focal point
V) Timetable new proxy installation

ANNEX I – List of Participants

Member State	Name	Mail address	phone number
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ANNEX II

Agenda

10th Mediterranean EWG Meeting

26th June 2012

Coast Guard Headquarters, Viale dell' Arte 16 – Rome

0900   Registration and coffee

0930   Opening of meeting and approval of agenda

0945   Wrap up of previous meeting/approval of minutes

1000   MAREΣ network activity and monitoring report

1030   Progress report:
  * Data quality monitoring
  * The new proxy release - installation outcomes
  * MAREΣ duplication (disaster recovery)
  * Dead Reckoning Tracks

1115   Coffee break

1130   Coverage and BSs management

1200   Member State status updates

1300   Lunch break

1430   Proposal for MAREΣ development
  * Service Oriented Architecture - experience of the Italian AIS network
  * Adriatic-Ionian Initiative - sub-regional server

1530   Coffee break

1600   MAREΣ future perspectives

  * Geographical expansion
  * Expansion in functions
  * Funding possibilities
  * Roadmap

1645   Discussion/conclusions

1715   End of meeting/date of next meeting

ANNEX III

List of e-mail addresses of MSs point of contact

Member State	Mail address used by ICG	New Mail address
Bulgaria	victor@bulris.bg	K. Ivanov@ bgports.bg; g.nikolov@bgports.bg
Cyprus	vtmis@dms.mcw.gov.cy	OK.
France	yann.guichoux@developpement-durable.gouv.fr Christophe.louvard@developpement-durable.gouv.fr (to add)	ou
Greece	hsofikitis@hcg.gr dipthak@hcg.gr danvtmis@yen.gr ssn@yen.gr jrccpgr@yen.gr	
Malta	paul.a.spiteri@transport.gov.mt ✓ paul.spiteri@mma.gov.mt	paul.a.spiteri@transport.gov.mt icthelpdesk.tm@transport.gov.mt
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Spain	jorgemm@sasemar.es	

ANNEX IV

List of focal point

Member State	Administration	FOC	Mail address
SPAIN	SASEMAR	JOAQUIN MACEIRAS SABORIDO	joaquinms @ sasemar.es
PORTUGAL	IPTM, IP	RICARDO RODRIGUES DOS SANTOS	RICARDO.SANTOS @ IMARDOR .PT
BULGARIA	BPI CO.	Kiril Ivanov	K.ivanov@Bgports. BG
FRANCE		Christophe. bouvard@ developpement-durable.gouv.fr	
ROMANIA			
MALTA	Transport Malta	Paul Spiteri	paul. a. spiteri @Transport.gou.mt
GREECE			
ITALY			
SLOVENIA	SLOVENIAN MARITIME ADM.	MIRAN BORDON	MIRAN BORDON @ Gov. si
CYPRUS	Department of Merchant shipping	Themis Evriviades	tevriviades @ dms.mcw.gov.cy

ANNEX V

Timetable new proxy installation

Member State	Administration	Proposed installation date	New proposed date/notes
SPAIN		**02.07.2012**	OK
SLOVENIA	**SMA**	**02.07.2012**	28.06 – 29.06
BULGARIA	**BPI CO.**	**03.07.2012**	OK
FRANCE		**03.07.2012**	TO BE CONFIRMED BY THE FOC
ROMANIA		**04.07.2012**	//////
MALTA		**04.07.2012**	OK
GREECE		**04.07.2012**	//////
PORTUGAL	**IPTM , IP**	**05.07.2012**	TO BE SUPPLIED AS SOON AS POSSIBLE
CYPRUS		**05.07.2012**	12.07.2012 (IT WILL BE CONFIRMED)