

2nd Meeting of the LRIT NCA's
SafeSeaNet Workshop no 13
Lisbon, 30 March 2010

Agenda item 8
SSN 13/1/1 (v.1.0)
23 April 2010

**Implementation of EU Council LRIT resolution:
integration of AIS and LRIT data within SSN/STIRES**

Submitted by EMSA

<i>Executive summary</i>	This document provides a description of the AIS/LRIT integration approach, the actual status of work and the impact of integration developments for the users.
<i>Action to be taken</i>	Member States are invited to take note of the proposed implementation road-map and to provide comments as appropriate.
<i>Related documents</i>	<ul style="list-style-type: none">▪ Directive 2009/17/EC amending Directive 2002/59/EC on vessel traffic monitoring system;▪ Council Resolution of October 2007 on EU LRIT DC;▪ Council Resolution of December 2008 on EU LRIT DC;▪ Commission's Communication of 15 October 2009;

1. INTEGRATION LEGAL BASIS

The legal basis for setting up the EU LRIT DC is Directive 2009/17/EC and the Council LRIT Resolutions of October 2007 and respectively December 2008.

The initial Council LRIT Resolution of October 2007 states:

Section 10:

"AGREES that, subject to the completion of necessary technical work, the EU LRIT DC should make use of the existing SafeSeaNet system communication platform in order to facilitate the sharing of LRIT information between Member States; if necessary, **the SafeSeaNet system should be modified, at central and national level, in order to ensure the appropriate level of security of LRIT data transmission and management and to fulfil the IMO requirements** and to properly implement the Data Distribution Plan agreed by Member States."

Section 12:

"AGREES that LRIT and AIS information are complementary and, therefore, agrees to progress, in the context of the EU AIS Master Plan, towards an integration of these two systems; STRESSES that synergies should be identified with other existing or developing ship identification and tracking systems."

The Council Resolution of December 2008 (section 10) further:

"INVITES the Commission and the Member States, in the context of the EU Master Plan for the Automatic Identification System (AIS), **to continue working to achieve the availability of integrated LRIT and AIS data through the SafeSeaNet system** and to report on this work and on the use of the SafeSeaNet system for sharing information."

With the measures entering into force by 30/11/2010 of Directive 2009/17/EC amending Directive 2002/59/EC; the processing of LRIT information also becomes subject to the purpose and objectives of the traffic monitoring and information system, including the compatibility and interconnection of information systems and networks within SSN.

Taking into account the Directive and the principles outlined in the Commission's Communication of 15 October 2009 (i.e. interlinking all user communities, building on a technical framework for interoperability and future integration, promoting information exchange between relevant civilian and military authorities at appropriate level on a "need to know" or "need to share" basis, and identifying obstacles in EU and national legislation to the exchange of data); EMSA is working on the integration of the systems already in place or under development at the Agency, achieving a more efficient and cost-effective operation of those systems.

2. INTEGRATION APPROACH

2.1. Integration principles

The integration developments are based on the following guidelines:

- **Independent processing** of data within the EMSA Maritime Applications (EMA) – which means that each system will continue to process the data as defined within the current set-up in order to ensure continuity and reliability at the same level of performance and to minimise the impact in case of a temporary malfunction of any component
- **Common Identity Management** - each application should use a common user management approach (common profiles, naming, access rights, etc) and should be linked to a Single Sign-On access
- **Member States' designation and management of common user/actor profiles** – the use of Integrated Data is subject to authorised access to the system, therefore the MSs will need to align the national users and roles to the new integrated user management requirements
- **Interoperability** - making information currently available under a single EMSA web application, accessible to the other applications
- **Common set of electronic charts** - all applications should use the same electronic maps and associated layout/symbols/colours reflecting international standards where appropriate

- **Common Help Desk** and **communication/e-mail alerts** application
- **Security considerations** should be taken into account so that data is protected against external and internal attacks and shared only with the correct addressees (authorised users)

2.2. Integration approach

The wide objective of the SSN-LRIT integration is to combine the data provided by existing systems in order to provide users with complete ship data. The integrated platform shall facilitate easy exchange of data between SSN and LRIT systems and the potential to build-up different combinations of data, as defined by user need. The SSN-LRIT integration project is combined with the further integration of oil spill tracking information from CleanSeaNet (CSN) with ship tracking data.

The integrated system should be able, by using a basic graphics interface, to provide the users with the following information:

- AIS ship tracking data – user shall be able to obtain the AIS position of all vessels sailing within EU AIS coverage area;
- LRIT ship tracking data – user shall be able to obtain the LRIT position of the ships in accordance with the LRIT access rights assigned to the user profile;
- Synthetic Aperture Radar (SAR) picture – the user shall be able to obtain the SAR picture provided by CSN, which contains ship and oil spill detection information;
- AIS/LRIT data and SAR picture – the user shall be able to obtain combined and correlated information of ship tracking data (AIS/LRIT) and vessel and oil spill detection data available in a SAR picture;
- Ship and cargo Data Sheet – from the tracking data image, the user shall be able to obtain the itinerary, status, ship and cargo particulars available in the SSN system for any ship for which he is entitled to obtain the position;
- Various query and monitoring functionalities.

The above integration project is scheduled to be completed by June 2011 and consists of the following main milestones and deliverables:

- April 2010 – AIS/LRIT integration – 1st phase (mandatory flag reports and coastal reports deriving from standing orders visualised along side current SSN information)
- November 10 - AIS/LRIT integration – 2nd phase (full LRIT data- all Flag, Coastal, Port and SAR- visualised alongside SSN V.2 data)
- December 10 - AIS/LRIT/CSN integration – data exchange between SSN – CSN
- March 2011 – implementation of SSN.3 – integrated portal able to ingest and process additional external data
- June 2011 – SSN.3 able to provide a Maritime Common Information Sharing Environment

In anticipation of possible future policy decisions, the integrated platform should be open to accommodate other data or external interfaces with different exchange mechanisms and shall be technically able to manage two-way exchange of data between internal and/or external data providers, such as:

- VMS ship tracking data – providing ship position reports for the fishing vessels;
- Satellite-AIS – providing worldwide AIS position of all ships;
- Local radar data – providing ship detection information from the EU coastal radar stations.

2.3. Actual status of developments

The project is on track and the 1st phase of the AIS/LRIT integration is now completed as described here below:

- An XML interface was implemented between the EU LRIT DC and STIRES;
- The interface provides STIRES with all Flag (mandatory) and Coastal (standing orders) LRIT reports processed by the EU LRIT DC;
- The interface also provides STIRES with a list of LRIT IDs entitled to receive the reports.
It has to be outlined that the LRIT IDs are related to the country and not to each user, therefore all LRIT users in one country will have the same ID (of the country) and will be entitled to receive the same LRIT reports during the first phase. At this stage, there will be a single SSN LRIT account for each country and all SSN LRIT users will use that account (sharing use) to access the LRIT data.
- SSN will map the SSN users' ID with the list of LRIT IDs and will distribute the received LRIT reports accordingly.

2.5 Impact on SSN/LRIT users

2.5.1 Access to LRIT reports

Although the interface provides a different tagging of the Flag and Coastal LRIT reports, the distribution mechanism of STIRES does not allow yet a segregation between the Flag and Coastal reports, therefore all LRIT SSN users will be able to access the same LRIT reports in one country. Segregated distribution in accordance with the LRIT rules will be implemented as part of phase 2.

MS representatives are invited to choose one of the two options below for the phase 1 April 2010 to November 2010:

Option 1: National Flag and Coastal users shall have access to both mandatory flag LRIT reports and coastal LRIT reports (if accepted, the SSN LRIT users shall be considered as having both Flag and Coastal LRIT profiles)

Option 2: During phase 1, only Flag (mandatory) LRIT reports will be distributed, as planned initially.

2.5.2 Management of LRIT and SSN users

In the first phase, only LRIT flag and LRIT coastal users will have access to LRIT through the SSN (STIRES) web interface.

A) Current EU LRIT DC users

All EU DC Flag (and Coastal users if decided) need to be registered as SSN users to receive LRIT reports through the SSN interface. Therefore SSN registration and "getting started" guidelines will be distributed to LRIT NCA for this purpose.

Once registered as SSN LRIT users they will receive the LRIT reports via SSN STIRES web user interface.

If a LRIT user would like to be also a SSN user (and access Port, Hazmat, incident, AIS and MRS ship notifications), a request will have to be addressed to the SSN NCA and a combined STIRES/LRIT profile will be assigned.

B) Current SSN users

If an existing SSN user would like to have access to LRIT data then a request has to be submitted to the LRIT NCA that needs to allocate him an LRIT profile (ID) and request for an update of the common ID reference to SSN.

C) New LRIT DC users

If a new LRIT user needs to be declared in SSN both procedures under A) and B) will have to be followed (requests to both LRIT and SSN NCAs).

3. TIMELINE

The following user management approach is proposed for your consideration:

- a. National decision to be taken if the 1st LRIT/SSN integration shall include only distribution of Flag State mandatory reports through STIRES web user interface or both Flag State and Coastal State reports, acknowledging that segregated distribution is not possible yet – deadline this meeting.
- b. MS SSN NCA shall provide EMSA (MSS) with an updated list of national SSN users, including SSN LRIT users (Flag and/or Coastal, as decided above) – deadline May 2010.
- c. EMSA will distribute necessary log-in/getting started guidelines to the SSN users according to their new profiles – deadline June 2010.
- d. MSs start using SSN system for receiving LRIT Flag (and Coastal) data – deadline July 2010.
- e. Distribution of Flag (Coastal) LRIT data via EU LRIT DC Web user interface remains available as a back-up solution.
- f. Full transition of all LRIT users (Flag, Coastal, Port, SAR) will be performed in 2011 upon the transfer of EU LRIT DC to EMSA.

4. ACTION REQUIRED

The SSN and LRIT NCAs are invited to note the timeline proposals under 3, to comment and to decide on the options under point 2.5.1.