

Med AIS Workshop no 4
Lisbon 7 June 2007

STIRES 4/MED/7
3 & 4 July 2007

Statistics

Submitted by France

<i>Executive summary</i>	The document proposes a project of statistical reports generated from AIS data.
<i>Action to be taken</i>	As per paragraph 4
<i>Related documents</i>	<ul style="list-style-type: none">- IALA guideline nr 1028 on AIS volume 1, part I / Operational issues Edition 1.3 – edition 2004.- Memo stat reports 25042005.doc from Royal Danish Administration of Navigation and Hydrography.

1. INTRODUCTION

AIS data can be split into three parts which characterize: the ship, its voyage between two ports, and its kinematic situation at a moment.

The compilation of these data transformed into statistics make it possible to better apprehend the maritime traffic near to the coasts, to evaluate the risks and thus, consequently to adapt the prevention and intervention means of the coastal Member States.

These statistics will be more complete if the data transmitted by AIS are associated with information on ship characteristics and voyage from other systems (as Lloyds Register Fairplay or Lloyds Marine Intelligence Unit databases for instance) (see * below).

It is important to note that the precision of these statistics depend on the quality of the AIS data transmitted by the ships. France has undertaken a survey on AIS data received by the French coastal VTS on the Channel over 2 months. This survey pointed out that 25% of the AIS messages contain erroneous information.

2. RESULT OF THE STUDY/PROPOSITION

2-1 The main objectives of the statistics are to evaluate the risks related to the coastal maritime traffic. The statistics do not have any commercial purpose. They could provide :

- Direction and localization of the maritime traffic and confirmation of natural maritime route;
- Number of ships and ships type in particular areas;
- Types and quantity of transported dangerous goods;
- Most represented flags;
- Age of ships carrying dangerous goods in bulk (*).

2-2 Valid for all statistic reports :

- All statistics are generated for each North/South or East/West directions.
- It can be necessary to define Mediterranean sub areas (two or three for instance : Eastern /Western/Adriatique).
- It's possible to define a time window with start and end date. The reports are split into monthly, quarterly, at semi-annual or annual intervals.

2-3 Statistics can be generated in several graphs :

- Crossing lines/passage lines - the X axis would be the specified times intervals and the Y axis would be the amount of ships and the plots would be for each direction (North/South or East/West bound).
- Ship type – the X axis would be the specified time intervals and the Y axis would be the amount of ships and the plots would be each direction (North/South or East/West bound) and divided among the types (8 types: tanker; cargo; passenger; other).
- Cargo type - the X axis would be the specified time intervals and where the Y axis would be the amount of ships and the plots would be each direction (North/South or East/West bound) and divided by the 4 types : X; Y; Z (new regulation of MARPOL) and other substances.
- Flag – the X axis would be the amount of ships and the Y axis would be the flags and the plots would be for each direction (North/South or East/West bound).
- Ship's age – the X axis would be the specified types of dangerous cargo (4) divided by four age groups (less than 5; 10; 15 and more than 15) and where the Y axis would be the among of ships;

2-4 format and report:

Generally, the user may choose the data as a line, bar or pie chart. This is unless for logical reasons or for plots clarity, some plot types are omitted.

All graphs can be exported to a PDF format.

All underlying figures can be exported in a comma separated files.

3. CONCLUSION

This study is a proposal. These statistics and graphs could be supplemented by other filtering parameters. They could evolve according to the modifications of the AIS standard

4. ACTION REQUIRED

The Member States participants are invited to consider and comment the proposal.