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TRAINING AND WATCHKEEPING
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MEASURES TO ENHANCE MARITIME SECURITY

Training in the use of shipboard AIS

Submitted by the United Kingdom

SUMMARY

Executive summary: This document comments on the requirements for training of shipboard personnel in the use of AIS equipment

Action to be taken: Paragraph 11

Related documents: MSC 75/24, STW 34/9

Introduction

1 The Secretariat (STW 34/9) has drawn attention to the Guidelines for the onboard operational use of shipborne Automatic Identification Systems given in resolution A.917(22) as useful to address the issue of training shipboard personnel in the use of AIS equipment. This document comments on document STW 34/9 and provides further comment on the training of shipboard personnel in the use of AIS and is submitted in accordance with paragraph 46.5 of the Guidelines on the organization and method of work.

Towards training objectives

2 Tasked with developing training specifically for the users of AIS, the definitive information available to the training provider is contained in the ITU technical specification ITU-R M.1371 and (with respect to seafarers) the content of A.917(22) and SOLAS chapter V. However, AIS is a new and untried system. By way of example, other than at the most basic level (three lines of text), it has not yet been agreed how best to display AIS information. In itself this might inform the decision as to the use to which received information is put – and influence the content of a training programme accordingly.

3 Resolution A.917(22) provides some guidance on the training objectives. For the seafarer, the objectives might be to increase navigational safety by demonstrating an ability to use the equipment or perhaps to indicate competence following examination on technical knowledge. Training directed at the seafarer must address basic AIS operation at the level of the minimum installation allowed on board. But to what extent should it address the overlay/underlay/interlay situation? Presently there is no requirement to display AIS information on radar or ECDIS but the capability to do so exists (once compatibility issues have been addressed). Is 'overlay' (used to include underlay and interlay displays) training to be part of AIS training or does it sit more

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comfortably with radar and/or ECDIS training? If radar is to be used as the preferred display platform, then a further factor to be considered is to the extent to which the mariner will be able to suppress AIS information transmitted from a base station. Similar issues arise with respect to ECDIS.

4 Whilst carriage is mandatory, the use of the equipment is not. The master has discretion to turn it off for safety and security reasons. Many of these reasons are well publicised, not least of which is the continuous position broadcast to would-be terrorists or pirates, coupled with what, to some, might be considered commercially sensitive cargo and routing information. Should training therefore also address the issues of when the equipment should be switched on and off?

The Human Factor

5 Further, when the equipment is in use, to what extent must the officer of the watch be trained to attend to a display which at its most basic level will display some alpha numeric information with respect to ships in his/her vicinity. Does the officer of the watch need to be trained to assimilate information which is of little practical use and which may contribute to what is colloquially called 'information overload'? Or should he be trained, when outside of a mandatory reporting area, to ignore it? Perhaps inevitably the officer of the watch will have little option but to monitor this equipment since it is also designed for the receipt of safety and related information by VTS or similarly equipped shore stations.

6 Since carriage aboard ship is mandatory, then training, it can be argued, should also be mandatory. Accordingly, all certificated deck officers should be trained regardless of their intention or otherwise to work aboard AIS equipped ships.

Possible content

7 Whether or not a 'Model Course' is developed, some element of training should be mandatory. The technical specification for UAIS is well documented. The knowledge required by the operator is not. Since to the operator, the specification is a given, the UK believes that he/she will not require knowledge to the depth of technical specification ITU-R M1371. How much of the specification must be understood in order to understand how the system works is also a matter for debate.

8 Of more importance than the technical detail is a consideration of how the equipment should be used and the potentially disastrous consequences of hardware and software errors. The issue of display format will need to be considered together with consideration of the potential errors inherent in the range of information that may be available as the consolidated target.

9 Setting up the equipment, entry and changing of voyage data, changing screens and selecting relevant information are skills which must be learned. To a certain extent, these skills will be system manufacturer dependant since displays do not share a common data entry format. Operators, whether on board ship or ashore, will have to learn to correlate AIS data with that from other sources – visual, radar, ECDIS, VHF etc. Ultimately operators will have to use this information to inform their own decisions with respect to 'best practice'.

10 The UK intend using time in our current Navigation Radar and ARPA Simulator courses to address the training issues for AIS. Although the course content regarding AIS has not been finalised, it is expected that the basic issues such as the overall use of the system will be addressed at the operational level, whilst issues such as those raised in par 4 and 10 above may be considered more suitable to management level training.

Action requested of the Sub-Committee

- 11 The Sub-Committee is invited to consider the above and take action as appropriate.
