

APPENDIX I

THAMES AIS TECHNICAL REQUIREMENTS SPECIFICATION

1. Thames AIS consists of:

- 1.1 A Class Alfa Universal AIS transponder complying with IMO resolution MSC.74 (69) Annex 3 as specified by IEC 61993-2 and ITU-R M.1371-3 and IALA technical clarifications of ITU-R M.1371-3 with the following exceptions:
- a) Minimum keyboard display is not required providing transponder configuration is preset during installation. (Reference MSC.74(69) Annex 3 Article 3.1.3);
 - b) IMO number is only required where it has been allocated. Default setting is zero. (Reference MSC.74(69) Annex 3 Article 6.1.1);
 - c) Vessel heading and the navigational status are optional. Default setting is "underway using engines". (Reference MSC.74(69) Annex 3 Article 6.1.2); and
 - d) Destination and ETA parameters are not required. (Reference MSC.74 (69) Annex 3 Article 6.1.3).

- 1.2 An onboard Geographic Display Unit connected to the ECDIS/pilot plug port of the Class Alfa AIS transponder. The geographic display system must:

1.2.1 Receive the following IEC 61162-2 messages:

IEC 61993-2 Message	ITU-R 1371-3 Message
VDO/VDM	1,2,3,5,12,14

1.2.2 Provide a display system that:

- a) is capable of decoding and displaying at least 250 simultaneous targets in accordance with ITU-R 1371-3 nominal reporting interval for given speeds;
- b) is positioned so that it is visible to the helmsman;
- c) Has daylight and night time visibility;
- d) Has a geographic area display of at least 20cm wide by 15cm high;
- e) Provides a means to transmit a broadcast emergency alert message (safety related);
- f) Provides a means to alert the operator of system and operational alarms including:
 - i) Reception of safety related messages; and
 - ii) Failure of positioning sensor (GPS outage);

- g) Has a graphical presentation view that :
- i) Has a screen resolution of at least 1024 x 768 pixels to clearly define text and image;
 - ii) Displays AIS targets clearly labelled with vessel name and in accordance with IMO "Guidelines for the Presentation of Navigation-Related Symbols, Terms and Abbreviations";
 - iii) Presents to the user a graphical outline of the river and outline of fixed structures that impinge on the river;
 - iv) Automatically centres/tracks on own-vessel position;
 - v) Displays a maximum range of at least 10nm;
 - vi) Provides an adjustable range scale including but not limited to scales of 0.25nm, 0.5nm, 0.75nm, 1.0nm and 1.5nm; and
 - vii) Displays a range scale bar or other means of representing the display scale.

2. The Persons On Board (POB) reporting system must:

2.1 Transmit and receive via the Class A AIS transponder the following binary messages:

Tx/Rx	ITU-R 1371-3 Message	Requirement
Tx	Encrypted; 6 (RAI = 232, FI = 1) Unencrypted 6 (IAI = 1, FI = 16) or 8 (IAI = 1, FI = 40) see note	The number of people on board (total of crew and passengers) when: <ul style="list-style-type: none"> o The system is first initialised o The number of people on board count is altered by the operator o At a rate between one (1) and six (6) minutes with the default being one (1) minute.
Rx	6 or 8 (IAI,IFM 2)	Respond accordingly

Note: The International standard message for POB has been changed to Message 6 (ITUR1371-3). Subject to user requirements, the system may send POB data encrypted or unencrypted. It is essential that the correct combination of Regional Area Identifier (RAI) or International Area Identifier (IAI) and International Functional Identifier (FI). The PLA system can still accept the old broadcast message 8 with IAI = 1 and FI =40 but it should be noted that this is no longer the internationally recognised standard and should this message and code be reallocated, it may be necessary to discontinue the use of message 8. It is recommended that new standard is adopted for all new equipment and that those with existing equipment using the old standard consider converting to the new standard when upgrading equipment.

2.2 Provide a means for the operator to alter the number of people on board.

APPENDIX II

PROCEDURES FOR THE OPERATION OF THAMES AIS AND PERSONS ON BOARD REPORTING SYSTEM

1. Class IV, V and Class VI Passenger Vessels carrying THAMES AIS in accordance with Byelaw 12 are required to:
 - a) operate THAMES AIS and its associated Persons On Board (POB) reporting system at all times when underway within Port Limits;
 - b) report total POB to the PLA, through THAMES AIS;
 - c) update this information on departure from the berth and whenever the number changes.
2. All Vessels operating THAMES AIS in accordance with Byelaw 12 are permitted to continue to transmit when alongside for short periods, but are to turn THAMES AIS off when unmanned or out of service.
3. THAMES AIS is to be operated on a stand alone computer system. Additional applications may only be included with the written approval of the Port of London Authority.
4. Temporary or portable installations of THAMES AIS or AIS A are permitted when complying with the requirements of Byelaw 12 – Thames AIS Carriage Requirements.