MARITIME AND PORT AUTHORITY OF SINGAPORE SHIPPING CIRCULAR NO. 7 OF 2016

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25 Feb 2016

Applicable to: Recognised organisations, owners, managers and masters of Singapore-registered ships, users and-manufacturers of electronic log books.

USE OF ELECTRONIC LOG BOOKS (DECK AND ENGINE LOGBOOKS) ONBOARD SINGAPORE REGISTERED SHIPS

- Merchant Shipping (Safety Convention) Regulations Chapter V Regulation 13 and Regulation 28, requires all ships to carry deck and engine room log books to:
 - record indelibly in English the performance of the ship, her machinery, boilers and other daily events including such data as the ship's position, speed, course, weather conditions, fuel consumption, tank soundings, machinery operating pressures and temperatures and any incidents which may appear to be of importance to safety of life at sea, prevention of pollution to the marine environment, etc.
 - maintain a record of navigation and engineering activities and incidents which must contain sufficient details to restore a complete record of the voyage.
- Such logs when entered by hand are required to be signed daily by the
 officers of the watch and countersigned by the master or the chief engineer as
 appropriate. Such logs or copies thereof shall be made available to the
 Director as and when required.
- 3. MPA will accept the use of the electronic log book as equivalent to the manual deck and engine log books onboard Singapore registered ships, as a means of keeping a record of navigation and engineering activities and to improve the efficiency and accuracy of record keeping.
- 4. The electronic log book should meet the listed guidelines in Annex A and IMO Resolution A.916(22) "Guidelines for the recording of events related to navigation".
- 5. Ship owners, managers, masters and officers of ships fitted with electronic log book are to use the guidelines to facilitate safe and efficient usage of electronic log book. Existing automatic recording devices (e.g. engine speed logger) would be considered acceptable as part of the electronic logbook.

6. Obligations of Owners & Managers

Ship owners and managers who propose to use the electronic log book must incorporate procedures in their Company's and Ships' Safety Management System to address the training, use, maintenance, backup and safekeeping of the electronic log book.

7. Any queries relating to this circular should be addressed to Capt Irinjalakuda G Sangamewar (Tel: 6375-6205) or Capt Syn Keong Kong (Tel: 6375-6272) or write to shipping@mpa.gov.sg

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Annex A

The guidelines are for any electronic log book used onboard Singapore registered vessels.

Technical

- The design of the equipment and software, including future updates, should comply with the requirements of Merchant Shipping Act (Safety Convention) Chapter V Regulation 13, Regulation 28 and IMO Resolution A.916(22) "Guidelines for the recording of events related to navigation" including future amendments.
- 2) There should be documentation traceability for any changes to software and upgrades tested prior release.
- 3) The workstation on the bridge where the electronic log book is located; should be designed in accordance with the principles given in MSC/Circ.982 "Guidelines on ergonomics criteria for bridge equipment and layout"
- 4) The lighting of display and keyboard for the electronic log book should follow the regulations in MSC/Circ.982/5.3.6.
- 5) The installation of the equipment for the electronic log book should not give rise to electromagnetic interference which would affect the proper function of navigational systems and equipment on board.
- 6) The electronic log book should maintain data integrity when there is a power loss or outage. When the machine is restarted upon power recovery, the electronic log book should return to the last set of data entered before the power outage occurred.

Control and Management

- 7) The access to the electronic log book should be controlled and tracked so that each entry in the log is linked to an identified user onboard.
- 8) There should be an option for printout for purpose of Flag State Control, Port State Control or part of investigations carried out by the Administration.
- 9) The electronic log book should add a time stamp to every entry and provide means to retrieve all data stored (whether stored manually or automatically).

<u>Data Storage and preservation</u>

10) The electronic log book should regularly back up all records. All records should be protected by means to prevent them from being tampered, deleted, destroyed or overwritten. Permanent deletion of entries should not be possible and there should be means of traceability for changes made to the electronic log book.

- 11) The electronic log book should store the data on two independent storage media in parallel (i.e. have at least double backups). In addition, it can be so designed that data is transmitted to a shore side system regularly and preferably without user intervention.
- 12) The electronic log book should be able to function as per normal in offline mode if there is a loss of network connectivity. There should be a feature/function to automatically cache or save the data keyed in to the local computer/device, regardless of any network connectivity.

Declaration

- 13) A declaration from the supplier's installation contractor should state that the electronic log book is installed according to current regulations, is performance tested and found in full functioning order.
- 14) A declaration from the owner/operator should state that the officers on board have received training in accordance with STCW-95 regulation I/14.1.4.
- 15) A declaration from the supplier of the electronic log book that the points no.1 to 12 of these guidelines are complied with.
- 16) A copy of the declarations shall be kept onboard the vessel with the electronic log book installed and shall be prominently displayed to show any inspectors, surveyors or Port State Control officers.