



NIUE SHIP REGISTRY

Website: www.niueship.com

ELECTRONIC LOGBOOK AND RECORD BOOK SYSTEMS (Circular NMC7.2020 (rev1))

(A) PURPOSE

This marine circular provides guidance for vessels flagged with the Niue Ship Registry (NSR) on the use of electronic log books as required by national requirements (e.g., Official Log Book) and SOLAS (e.g., Deck and Engine Room log books), as well as electronic record books under MARPOL.

(A) DEFINITIONS

The following abbreviations stand for:

- "IMO" - International Maritime Organization
- "BWMC" - International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004
- "MARPOL" - International Convention for the Prevention of Pollution from Ships, 1973/78
- "[RO](#)" - Recognized Organization, as defined by IMO Resolution A.789(19), authorised by Niue
- "SOLAS" - International Convention for the Safety of Life at Sea (SOLAS), 1974

(B) REFERENCES

1. IMO MSC/Circ.982, Guidelines on Ergonomic Criteria for Bridge Equipment and layout.
2. IMO Resolution A.916(22), Guidelines for the recording of events related to navigation.
3. Niue Marine Circular NMC1.2017, Official Log Book Entry
4. MSC-FAL.1/Circ.3, Guidelines on Maritime Cyber Risk Management
5. IMO Resolution MEPC.312(74), Guidelines for the use of electronic records under MARPOL.
6. IMO Resolution MEPC. 314 (74), Amendments to MARPOL Annexes I, II and V
7. IMO Resolution MEPC. 316 (74), Amendments to MARPOL Annexes VI
8. IMO Resolution MEPC. 317 (74), Amendments to the NOx Technical Code 2008
9. IMO Resolution MEPC. 372 (80), Guidelines for the use of ERB under BWM Convention

(C) ELECTRONIC LOG BOOKS

1. NSR accepts the use of the electronic log book as equivalent to the manual deck and engine log books onboard Niue flagged vessels, as a means of keeping a record of navigation and engineering activities. Existing automatic recording devices (e.g. engine speed logger) would be considered acceptable as part of the electronic logbook.
2. Use of electronic log books is subject to compliance with the following guidelines:

TECHNICAL

- 2.1. The design of the equipment and software, including future updates, should comply with the applicable SOLAS requirements and IMO Resolution A.916(22) [Reference 2] including future amendments.
- 2.2. There should be documentation traceability for any changes to software and upgrades tested prior release.
- 2.3. 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 [Reference 1].
- 2.4. The lighting of display and keyboard for the electronic log book should follow the regulations in MSC/Circ.982/5.3.6 [Reference 1].

- 2.5. 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.
- 2.6. The electronic log book should maintain data integrity when there is a power loss or outage, (i.e., 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

- 2.7. 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.
- 2.8. There should be an option for printout for purpose of Flag State Inspection, Port State Control or part of investigations that may be performed by the Niue Administration.
- 2.9. 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).

DATA STORAGE AND BACK-UP

- 2.10. There should be regular back up of all records in the electronic log book they 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.
- 2.11. 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 designed such that data is transmitted to a shore side system regularly and preferably without user intervention.
- 2.12. The electronic log book should be able to function as per normal in offline mode if there is a loss of network connectivity. The function to automatically cache or save the data entered, regardless of any network connectivity, should be available.

DECLARATION

- 2.13. 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.
 - 2.14. A declaration from the owner/operator should state that the officers on board have received training in accordance with STCW Regulation I/14.1.4.
 - 2.15. A declaration from the supplier of the electronic log book that the Section (C)2.1 to 2.12 of this marine circulars are complied with.
 - 2.16. A copy of the declarations shall be kept onboard the vessel and shall be prominently displayed to show any inspectors, surveyors or Port State Control officers.
3. The use of electronic log books must be incorporated into the Company's and Ships' Safety Management System (SMS) procedures to address areas such as training, use, maintenance, backup and safekeeping of the electronic log books.

(D) ELECTRONIC RECORD BOOKS UNDER MARPOL AND BWMC

1. The use of electronic record books under MARPOL and BWMC are permitted after entry into force of the amendments [Reference 6, 7, 8, and 9], and shall comply with IMO Resolution MEPC.312(74) [Reference 5] and 372(80) [Reference 9], as may be amended.

2. The following record books can be in electronic versions:
 - 2.1. Oil Record Book, Part I and II (MARPOL I / Reg 17.1 and 36.1);
 - 2.2. Cargo Record Book (MARPOL II / Reg 15.1);
 - 2.3. Garbage Record Book, Part I and II (MARPOL V / Reg 10.3);
 - 2.4. Ozone-Depleting Substances Record Book (MARPOL VI / Reg 12.6);
 - 2.5. recording of the tier and on/off status of marine diesel engines (MARPOL VI / Reg 13.5.3);
 - 2.6. Record of Fuel Oil Changeover (MARPOL VI / Reg 14.6); and
 - 2.7. Record Book of Engine Parameters (NOX Technical Code, paragraph 6.2.2.7)
 - 2.8. Ballast Water Record Book (BWMC/ Reg B-2)
3. Ship owners / managers shall ensure that their crew are familiar with the use, maintenance and safekeeping of the electronic record books.
4. The RO responsible for issuing the MARPOL and BWMC statutory certificates is authorized to approve electronic record books in accordance with IMO Resolution MEPC.312(74) [Reference 5] and MEPC. 372(80) [Reference 9], and subsequently issue a "Declaration of Electronic Record Book" on behalf of Niue upon satisfactory approval. Acceptance of electronic record book software that is approved by a RO other than the RO issuing the statutory certificates is subject to the acceptance by the Niue Administration.
5. The electronic record book shall be used only after a "Declaration of Electronic Record Book" has been issued, and any change of the electronic record books on board (including version upgrade) shall warrant the issuance of a new "Declaration of Electronic Record Book".
6. An electronic record book that has been approved by a RO in accordance to IMO Resolution MEPC.312(74) [Reference 5] and MEPC. 372(80) [Reference 9] does not require re-approval, and the RO may re-issue the "Declaration of Electronic Record Book" on behalf of Niue upon satisfactory completion of the change of flag survey.
7. Niue flagged vessels calling ports that do not accept the use of electronic record books shall maintain appropriate hardcopy MARPOL and BWMC records. The Niue Administration accepts printouts of electronic records as "certified true copies" of the entries made in the electronic record book, provided that each entry is physically signed by the Officer in Charge and each completed page is physically signed by the Master.
8. In the event of a failure of the electronic record book, the ship manager or Master shall follow the procedures in the vessel's SMS system, notify Flag and the RO, and arrange for rectification at the next port of call.

(E) CYBER SECURITY

While adopting MSC-FAL.1/Circ.3 against maritime cyber risk, all electronic log data system software shall provide verifiable security from tampering and inappropriate revisions of data along with back-up arrangements for both the system (means of recording log data) and the log data itself, once recorded.

Please do not hesitate to contact the Registry at technical@niueship.com or call: +65 6226-2001 for clarification.