

Merchant Marine Circular

Panama Maritime Authority General
Directorate of Merchant Marine
Control and Compliance Department

MERCHANT MARINE CIRCULAR MMC-193

- To:** Owners/Operators, Legal Representatives of Panamanian Flagged Vessels, Consuls, Recognized Organizations and Port State Control Authorities.
- Subject:** Optional and Voluntary System for Electronic Books or Electronic Record Books on board Panamanian Flagged Vessels.
- Reference:** Resolution J.D. N° 013-2017 of 8 March 2017,
Resolution No. 106-17-DGMM of 22 March 2018,
Resolution No. 107-OMI-237-DGMM of 21 July 2020 adopted Resolution MEPC. 312(74) of January 2020.
Resolution J.D. No. 076-2021, 28 October 2021, amended by Resolution J.D. No. 055-2022 dated September 22, 2022.
IMO Circular BWM.2/Circ.80 “Guidance on ballast water record-keeping and reporting”

1. Purpose

This Merchant Marine Circular has the purpose to inform all interested parties that this Administration has established through Res. No.106-17-DGMM of March 22, 2018, the regulatory scheme for the approval on the voluntary use of Electronic Record Books on board of Panamanian vessels, assuring in this way, that the international standards of maritime safety and pollution prevention contained within the International Conventions ratified by the Republic of Panama are complied with. Additionally, to inform those electronic books or electronic record books to be used as an alternative method to a hard copy record books mandatory because of the different annexes of the MARPOL Convention 73/78 as amended, shall be in compliance with the technical specification detailed in the IMO Resolution MEPC. 312(74).



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2. Scope

- 2.1. Applicable to any manufacturer companies of system for Electronic Record Books which desire to provide this service on board of Panamanian vessels.
- 2.2. The required services within the optional and voluntary Electronic Record Books are limited to supply any Panamanian vessel, the electronic means for the reception, record and control of the information pertaining to:
 - a. Oil Record Book and Emissions
 - b. Crew Roll Book
 - c. Bridge Logbook
 - d. Ballast Water Record Book
 - e. Any other record book the Administration determine to be necessary for the operation of ship in accordance with the international Conventions and Codes.
- 2.3. The Electronic Record Books will be supplied at the request of any ship-owner or operator, by any manufacturer company approved by the Administration.

3. General Specifications Electronic Record Book System

- 3.1. The General Directorate of Merchant Marine as flag State has established the requirements for the recognition and authorization of any manufacturing company to provide the System for Electronic Record Books on board of the Panamanian vessels.
- 3.2. In order to authorize a company to provide this service, it is required that all applicants ensure that efficiency and compliance of Electronic Record Books Systems are as required by the International Conventions, the rules issued by this Administration and the present circular.
- 3.3. The minimum general requirements necessary for the Electronic Record Books System within the Panamanian Merchant Marine will be the following:
 - 3.3.1. The workstation where the Electronic Record Books System will be available shall be designed in accordance with the functional requirements for bridge configuration, bridge arrangement, bridge workstations and bridge environment principles given in ISO series 8468 (Ships and marine technology — Ship's bridge layout and associated equipment — Requirements and guidelines) and the IMO Guidelines on Ergonomic Criteria for Bridge Equipment and Layout MSC/Circ. 982 dated 20 December 2000.
 - 3.3.2. The presentation of the Electronic Record Books System shall follow the regulations established in Resolution MSC.86 (70) or Res.MSC.252(83) (as

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appropriate) and MSC/Circ 982 (5.3.4.) regarding the IMO Guidelines on Ergonomic Criteria for Bridge Equipment and Layout.

3.3.3. Lightning of display and keyboard shall follow the regulations in ISO 8468 7.6.3.4 and IMO Regulations MSC/Circ. 982/5.3.6.

3.3.4. The record of navigational activities and incidents which are of importance to safety of navigation and which must contain sufficient detail to restore a complete record of the voyage, are recommended to follow the guidance for the recording of such events as prescribe in the Res.A.916(22).

3.3.5. Software updating: New software versions will be developed, edited and issued in accordance with development routines according to ISO 9002 for the work process. All changes to software will be documented and tested prior to release so that traceability is maintained within software releases.

3.3.6. Client/Server Installation: The (System for electronic books or electronic record books) must be capable of supporting a client/server installation, with the possibility of recording data within the same server using several clients in multiple workstations as much as required by client.

3.3.7. Minimum Data report and export requirements: The System for electronic books or electronic record books shall comply with the following minimum requirements to report and export data:

- a) Being capable to support the automatic reproduction between the vessel and the operator's office, using the communication equipment at the vessel,
- b) To produce PDF format reports,
- c) Allow the data export to another system in XML format,
- d) Allow access by the General Directorate of Merchant Marine at any time, and to produce copy of any entry at request of the Competent Authorities. Moreover, if the manufacturer uses a different format than the specified above, it shall provide to this Administration, the ways to access the information within the system.

3.3.8. Back Up and recovery of information: The System for electronic books or electronic record books electronic book system shall have the possibility to make a security copy or back up of the data, assuring that the information will not be lost if the hard disc of the electronic book server is corrupted. Moreover, the system must be able to recover the information of the security copy. The System for electronic books or electronic record books electronic system shall be able to secure a rapid copy of the entire data with the use of removable external data source (REDS) including, but not limited to compact discs, memory sticks, (i.e. USB memory stick) and Bluetooth devices, or has

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a backup of the data in a cloud.

- 3.3.9.** ISO 21745:2019 - Electronic record books for ships — Technical specifications and operational requirements specifying the minimum technical and operational requirements for electronic record books (ELRB) to be used on ships shall be complied with.

4. Specific Requirements

4.1. Bridge Logbook minimum requirements

- 4.1.1.** The Electronic Bridge Log Book must have the characteristic to record relevant events regarding the operation of the ship, along with the necessary details for the recreation of the voyage. The data shall be recorded in accordance with IMO regulations.
- 4.1.2.** All recorded events shall have a stamp with time and date, the local time on board and official UTC time.
- 4.1.3.** All annotations of events within the bridge log book shall be maintained for a five (5) year period and must be available for this Administration in PDF format.
- 4.1.4.** The Electronic Log Book shall have an option to include the electronic signature of the Master of the vessel.

4.2. Oil Record Book and Emissions minimum requirements

- 4.2.1.** Should have the characteristics needed in order to record the relevant events to comply with OMI requirements.
- 4.2.2.** All the events will have a stamp with time and date, the local time on board as well as the official UTC time.
- 4.2.3.** All of the events within the Oil Record Book and Emissions will be stored for three (3) years period after the last entry has been made and should be available to the administration in PDF format.
- 4.2.4.** The data on the vessel's position should coincide with the information on the position on the Bridge Log Book.
- 4.2.5.** The Oil Record Book and Emissions should have characteristics for the electronic signature of the Vessel's Master.

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4.2.6. Additional requirements under IMO Res. MEPC 312(74) - Guidelines for the use of electronic record books under MARPOL,

4.2.6.1. Additional requirements applicable to the use of Electronic Books or electronic record books destined to meet the requirements of the record books and recording requirements under the MARPOL Annexes and the Technical Code on Control of Emission of Nitrogen Oxides from Marine Diesel Engines (NOX Technical Code)

4.2.6.2. Section 4 System Specifications stated in the Resolution MEPC. 312(74) shall be complied with.

4.2.6.3. Also, section 6 related to MARPOL Inspection and Enforcement as stated in the Resolution MEPC 312(74) shall be complied with.

4.3. Crew Roll Book minimum requirements

4.3.1. Should have the characteristics to list the crew onboard the vessel and a function to be able to list and control the users with a username and a password. The crew role system should also have the reports described below:

- i. Onboard Crew List: will have the following information: Full name, position onboard, Certificate of Competency, place of birth, age, passport number,
- ii. Crew details report: including: Full Name, position onboard, Certificate of Competency, Place of Birth, Age, Nationality, Passport Number, Name and address of the closest relative, port of embarkation, place and date of embarkation, embarkation duration.
- iii. Historic crews report: including the following information: Full name, onboard position, Certificate of Competency, Place of Birth, Age, Nationality, Passport Number, Port and date of embarkation, Place and Date of landing. The crew's historic details should be stored for a five (5) years period and will be available in PDF format.

4.4. Ballast Water Record Book minimum requirements

4.4.1. Should have the characteristics needed in order to record the relevant events to comply with OMI requirements and, which shall at least contain the information specified in Appendix II of the IBWM Convention as amended.

4.4.2. All the events will have a stamp with time and date, using the Coordinated Universal Time (UTC) and Ship's Mean Time (SMT).

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- 4.4.3. All of the entries within the Ballast Water Record Book shall be maintained on board the ship for a minimum period of two years after the last entry has been made and thereafter in the Company's control for a minimum period of three years. And should be available to the administration in PDF format.
- 4.4.4. The data on the vessel's position should coincide with the information on the position on the Bridge Log Book.
- 4.4.5. The Ballast Water Record Book should have characteristics for the electronic signature of the Vessel's Officer in charge of the operation concerned and the Master, as per the BWM Convention requirements.
- 4.4.6. The IMO circular BWM.2/Circ.80 shall be consider within the technical specifications of compliance of the Ballast Water Record Book in conjunction with the BWM Convention.

4.5. Instructions to manufacturers and vessels

- 4.5.1. Both, the manufacturer and the vessels that use the Electronic Record Book Systems, should provide the general or special information recorded on the Electronic Books, required by the General Directorate of Merchant Marine to verify the compliance of the international regulations or for investigations, or navigation incidents, inspections or any other control process that the maritime Administrations may be carrying out. This requirement will be mandatory, and non-compliance could lead to the authorization and/or license withdrawal.
- 4.5.2. In order for the vessels in the national merchant marine to use any format of the Electronic Record Book System on board, it is necessary for it to obtain the required license, which is not transferable and which is issued for a one-year period. The request could be made by the ship owner, the master, or the Legal Representative at the General Directorate of Merchant Marine or at any Merchant Marine Consulate.
- 4.5.3. For the Panamanian merchant marine vessels to obtain the Appropriate License that will allow them to use the Electronic Book system they should be duty paid with the National Treasury.
- 4.5.4. For the issuance of the Electronic Book License, it is necessary that, once the electronic book format is installed onboard the Merchant Marine vessel, the authorized manufacturing company shall issue a document called Manufacturer's declaration which should specify that:

1. the system is installed according to the approved existing requirements,

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2. the installed system complies with the specific requirements,
3. the installed system has been tested and it is in a proper and perfect working and functioning condition.

4.5.5. It is also necessary that the owner/operator, master, and crew of the vessel which has the electronic book system installed, issue and keep on board a “Statement of the owner or agent responsible for the operation of the ship that specifies the following:

1. the crew has been trained in an appropriate and concise way on the management, utilization, and operation of the Electronic Books according to STCW-95 regulation I/14.1.4.
2. the routines and processes for the conservation, and maintenance of the Electronic Book records comply with the Panama Maritime Authority and IMO’s regulations and are perfectly documented and specified in the vessel’s IGS Code (International Safety Management Code).

4.5.6. For the issuance of the electronic book licenses by the corresponding authorities, the following documents must be presented at the General Directorate of Merchant Marine:

1. Manufacturer Statement
2. (*) Declaration (applicable) for those Electronic Book records relative to the Marpol Annexes and the NOX Technical Code
3. Ship-owner / operator or master statement
4. The vessel must be duty paid

4.5.7. And the payment rights applicable to the issuance of the license.

4.5.8. The license cost for the usage of the Electronic Book, as established by Resolution J.D. N° 013-2017 of 4 April 2017 is as follows:

1. License for the use of the Electronic Crew Roll, \$200.00 annually.
2. License for the use of the Electronic Bridge Logbook, \$500.00 annually.
3. License for the use of the Electronic Oil Record Book and Emissions, \$500.00 annually.
4. License for the use of the Electronic Ballast Water Record Book, \$50.00 annually.

4.5.9. The rights to be paid for the issuance of these licenses in electronic format issued by the General Directorate of Merchant Marine, shall be paid to this

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directorates or any Merchant Marine Consulate annually by every vessel subscribed in the Panamanian merchant marine. In the same way, the Consulates that provide services for the Merchant Marine Directorate may charge the fee established in this circular which will be subject to the consular fees established in article 1º, paragraph 13 from Decree 75 of July 11, 1990.

4.5.10. Those vessels which on a voluntary basis has installed the software for the Electronic Record Book duly certified with the license described on paragraph 4.4.8 above, are not obliged to have the hard copy record book, as the Electronic Record Book is an alternative method accepted by this Administration.

4.5.11. The companies recognized as manufacturer to provide the production, marketing, sale, maintenance, actualization and utilization services of the Electronic Books Formats of Bridge Log Book, Oil Record Book and Emissions, and Crew Roll Book on board of the National Merchant Marine vessels that require its services are:

1. KONGSBERG MARITIME AS.
2. ON BOARD NAPA LTD.
3. PREVENTION AT SEA LTD.
4. SPECTRAL TECHNOLOGIES INC.
5. INGENIUM MARINE SOLUTIONS PRIVATE LIMITED
6. TRANSAS MARINE LIMITED
7. IB S.R.L.
8. MARINELAB D.O.O.
9. MARIAPPS MARINE SOLUTIONS PTE. LTD.
10. RINA CONSULTING S.P.A.

4.5.12. The Electronic Book system does not exclude the issuance, sale and use of the books, manuals, or documents in print, usable onboard vessels not fitted with the respective Electronic Book system as prescribed in this MMC 193.

(*) Refer to paragraph 5 of the GUIDELINES FOR THE USE OF ELECTRONIC RECORD BOOKS UNDER MARPOL, adopted by resolution MEPC 312(74). The declaration can be issued by Recognized Organizations already delegated by this Administration to issue certificates relevant to MARPOL Annex I, II, VI & NOx Code. The issuance of every DECLARATION OF MARPOL ELECTRONIC RECORD BOOK shall be subjected to the fee of USD 100.00, based on the provisions of Article Fifth of Resolution J.D. No. 076-2021, 28 October 2021, amended by Resolution J.D. No. 055-2022 dated September 22, 2022; and, to the provisions of paragraph 6.3 of MMC-324.

September, 2023 – Included in the references, the Resolution J.D. No. 076-2021, 28 October 2021, amended by Resolution J.D. No. 055-2022 dated September 22, 2022 and IMO circular BWM.2/Circ.80. New paragraph 4.4 for BWRB minimum requirements. Next

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paragraph re-numbered. New paragraph 4.5.8 the fees for the License for the use of the Electronic Ballast Water Record Book. Footnote amended to clarify the Recognized Organizations which can issue the Declaration of MARPOL Electronic Record Book (as per IMO resolution MEPC 312(74)) and refer to Resolutions J.D. of fees for service delegated to Recognized Organizations as well as to the MMC-324.

May, 2023 – Index added. New company added “RINA CONSULTING S.P.A.”. Following paragraphs amended 1, 2.2, and section 3. All points re-numbered.

July, 2022 - Inclusion of the company: Mariapps Marine Solutions PTE. LTD.

September, 2020 – Update of template used. / Inclusion of the companies: Transas Marine Limited, IB S.R.L. & Marinelab D.O.O.

Amendment in the references, Amendment structure and all content.

Included in technical specifications for the Bridge Workstation Log Book, the references to Res.A.916(22) (paragraph 3.3.1.4).

Included within the Oil Record Book and Emissions minimum requirements in paragraph 3.4.3 additional requirements for record books needed under MARPOL Convention and NOX TF specified as per IMO Res. 312(74).

March, 2020 – Update of template used.

Addition on the title of phrase “Port State Control Authorities” Amendment in the references, All content numbered.

Included the word “optional” in all phrases where was quoted: Oil Record Book and Emissions– Part I, Part II & III (optional).

Included paragraph 1.3 d) “Ballast Water Record Book”

In paragraph 2.3.3.1 included phrase “as much as required by client” Added paragraph 2.3.4.1.

Addition in paragraph 2.3.5.2 of external device as follow: removable external data source (REDS) including, but not limited to compact discs, memory sticks, (i.e. USB memory stick) and Bluetooth devices, or has a backup of the data in a cloud.

Addition in paragraph 4.3 of “Part II & III (optional) of the Oil Record Book” as well as updated of period of stored to retain information according to the MARPOL Convention 73/78 as amended.

Correction in paragraph 6.6 of Resolution J.D. which shall said: Resolution J.D. N° 013-2017 of 4 April 2017

Addition in paragraph 6.6.3 of Part I and II and III (optional)

Addition in paragraph 6.9 of company “SPECTRAL TECHNOLOGIES INC.” & “INGENIUM MARINE SOLUTIONS PRIVATE LIMITED”

April, 2018 – addition in Subject of terms “Electronic Record Books”.

Addition in References of new Resolution J.D. N° 013-2017 of April 4, 2017, which derogates the Resolution J.D. N°. 026-2007 of November 8, 2007.

Added of the Resolution No. 106-17-DGMM of March 22, 2018. Addition of new company in last paragraph: Prevention at Sea Ltd.

Inquiries concerning the subject of this Merchant Marine Circular or any other request should be forward to:



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