TO: ALL SHIPOWNERS, OPERATORS, MASTERS AND OFFICERS OF MERCHANT SHIPS, AND RECOGNIZED ORGANIZATIONS

SUBJECT: Magnetic Compasses Adjustment

References:
(a) SOLAS, International Convention for the Safety of Life at Sea, Ch V, Reg. 19.2
(c) STCW Code, Seafarers Training, Certification, and Watchkeeping Code, 2011 Edition, as amended
(d) IMO Assembly Resolution A.382(X), Magnetic Compasses Carriage and Performance Standards, adopted 14 November 1977
(e) ISO Standard 25862:2009, Ships and marine technology – Marine magnetic compasses, binnacles and azimuth reading devices

PURPOSE

This Notice establishes the Republic of the Marshall Islands (RMI) Maritime Administrator’s (the “Administrator”) policy for adjusting and repairing magnetic compasses.

This revision, which supersedes that of Aug/2018, reflects additional clarifications to the Administrator’s requirements for magnetic compass adjustments based on stakeholder input. It incorporates International Organization for Standardization (ISO) performance standard 25862:2009.

APPLICABILITY

This Notice applies to all vessels, as well as mobile offshore units (MOUs), that are required to be fitted with a magnetic compass.

REQUIREMENTS

1.0 Allowed Residual Deviation

All vessels are required to be fitted with a properly adjusted magnetic compass. The residual deviation, or error, must be five degrees (5°) or less on all headings following the performance standard ISO 25862:2009.
2.0 When a Compass Must be Adjusted

2.1 Magnetic compasses must be adjusted when:

.1 They are first installed.
.2 They become unreliable or the observed error consistently exceeds the allowed 5° limit.
.3 After dry docking, or after repairs or structural alterations have been made to the ship that could affect its permanent or induced magnetism (see §3.1 below).
.4 Electrical or magnetic equipment close to the compass is installed, removed, or altered.
.5 After one (1) year from when the compass was last adjusted, if the required record of compass deviations has not been maintained.
.6 When it is deemed necessary by the Master.

3.0 Changes in Magnetism During the Ship’s Life

3.1 A new vessel’s magnetism can be particularly unstable. The same is true following major structural repairs or modifications. Therefore, the performance of magnetic compasses is to be monitored carefully during the vessel’s early life and after repairs or modifications are completed to determine if the compass requires adjustment.

3.2 Masters are to check the performance of magnetic compasses particularly:

.1 when carrying and after discharging cargoes that have magnetic properties;
.2 after electromagnetic lifting appliances are used for cargo loading or discharging (see §3.3 below);
.3 following a casualty in which the vessel has been subject to severe contact or electrical charge, such as a lightning strike; or
.4 after the vessel has been laid up or lying idle, since even a short period of idleness can affect the deviation, especially for small vessels.

3.3 The retentive magnetic field induced by electromagnetic lifting appliances can alter a vessel’s magnetism, making compasses unreliable. However, a large amount of the magnetism induced by electromagnetic equipment may subsequently decay. Therefore, immediate readjustment is not advised until the residual deviation of the compass has been determined.
4.0 Monitoring Compass Deviation

4.1 The following best practices are to be followed:

.1 Watchkeepers are to check the compass error after each major course alteration, or at least once per watch where no major alteration has taken place. The observed error must be recorded in a compass deviation book.

.2 An entry must be made in the compass deviation book when a vessel enters and leaves dry dock.

4.2 Checking the compass deviation regularly may show the need for repair, testing or adjustment. In addition, compasses must be inspected at regular intervals by a competent officer or qualified compass adjuster.

5.0 Compass Adjustments and Repairs

5.1 All compass adjustments, including those using remote services, must be carried out by a qualified compass adjuster or the ship’s master as stated in ISO standard 25862:2009.

5.2 The date of any adjustment and other details must be noted in the compass deviation book. Such details must include the position of all compass correctors as well as the vessel’s position and sea conditions when the adjustments were made.

5.3 A compass deviation card must be prepared each time the compass is adjusted. Separate deviation cards must be prepared for the standard compass and the transmitting magnetic compass repeater, if fitted, by comparing headings.

5.4 Repairs must only be made by the compass manufacturer, other competent person, or a company using proper test facilities. When the work is finished the repairer must supply the Owner or Master with a certificate specifying the date the work was done and the applicable standards.