



Technical Circular

No.: 004/2022

Date: 14th January 2022

Subject: Republic of Marshall Islands MSA No. 01-22 Reg. Global Positioning System (GPS) Rollover-2022.

1. On 02nd January 2022, a GPS rollover event occurred which may cause some GPS units to show the wrong position and the incorrect date of 19 May 2002.
2. Stand-alone GPS receivers and equipment using GPS chips could produce data that is 19.7 years in the past, generating errors in both the GPS position and date. The 19.7 year date error may result in instability in positioning, causing position errors (e.g. failure of GPS position acquisition, etc.). This will affect navigation and communication equipment.
3. While the positional fix can be restored by carrying out a cold start on some units, the incorrect date cannot be resolved by a cold start. To fix this issue, the GPS manufacturers will need to carry out a software update. In some cases, the GPS unit may need to be replaced with a newer model.
4. In this regard, Marshall Islands Administration has issued Marine Safety Advisory No.01-22 advising following to vessel owners/ operators and masters;
 - a. Vessel owner/ operator to contact their GPS manufacturers to determine if the equipment onboard their vessels will require a service technician to update the software and rectify the GPS equipment issue at the first available opportunity, but no later than 31 March 2022.
 - b. Vessel masters to make appropriate entries in the GMDSS and Deck Log Book and keep boarding pilots and port State control advised if the discrepancy exists on their vessel.
5. Vessel owner/ operators and masters are advised to be guided by above.

Enclosure:

1. RMI Marine Safety Advisory No. 01 of 2022.



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. While we have taken utmost care to be as factual as possible, readers/ users are advised to verify the exact text and content of the Regulation from the original source/ issuing Authority.

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Republic of the Marshall Islands

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MARINE SAFETY ADVISORY No. 01-22

To: Owners/Operators, Masters, Nautical Inspectors, Recognized Organizations

Subject: GLOBAL POSITIONING SYSTEM ROLLOVER - 2022

Date: 6 January 2022

The Republic of the Marshall Islands Maritime Administrator (the “Administrator”) is receiving requests to issue dispensation letters for the malfunction of Global Positioning System (GPS) units. On 2 January 2022, a rollover event occurred which may cause some GPS units to show the wrong position and the incorrect date of 19 May 2002. It should be noted that the problem may include navigation and communication equipment. Stand-alone GPS receivers and equipment using GPS chips could produce data that is 19.7 years in the past, generating errors in both the GPS position and date. The 19.7-year date error may result in instability in positioning, causing position errors (e.g., failure of GPS position acquisition, etc.).

The positional fix can be restored by carrying out a cold start on some units. However, the incorrect date cannot not be resolved by a cold start. To fix this issue, the GPS manufacturers will need to carry out a software update. In some cases, the GPS unit may need to be replaced with a newer model.

The Administrator is requesting that:

1. Vessel owners and operators:

- contact their GPS manufacturers to determine if the equipment onboard their vessels will require a service technician to update the software; and
- rectify the GPS equipment issue at the first available opportunity, but no later than 31 March 2022.

2. Vessel Masters:

- make appropriate entries in their Global Maritime Distress and Safety System and Deck Log Books; and
- keep boarding pilots and port State control advised if the discrepancy exists on their vessel.

Please contact the Administrator’s Radio Service Area at radio@register-iri.com if additional information is needed.

This MSA is evaluated annually by the Administrator and expires one year after its issuance or renewal unless otherwise noted, superseded, or revoked.