Technical Circular

No.: 024/2022   Date: 01st April 2022

Subject: RMI SSA No. 04-22 Reg. Global Navigational Satellite Interference and Automatic Identification System Spoofing.

1. The Republic of Marshall Islands (RMI), vide Ship Security Advisory No. 04-22 has informed regarding Global Positioning System (GPS) interference in various locations around the world, particularly in the eastern and central Mediterranean Sea.

2. The Security Advisory further provides that the US Coast Guard has also received incident reports regarding GPS interference from the Suez Canal, Cyprus, Malta, Istanbul, Persian Gulf near Dammam, Saudi Arabia, and off the coast of Brazil.

3. Also, noting that Automatic Identification System (AIS) devices do not inherently have virus or malware protection, Administration has advised that cybersecurity best practices against hacking should be adhered to, if AIS is connected to a network or is updated using removable electronic devices (e.g. USB drives) and that AIS should never be solely relied upon for collision avoidance or navigational decision making.

4. In view of above, RMI Administration has encouraged RMI registered vessels to report any suspected or confirmed electronic interference incidents by sending the following information in real time to shipsecurity@register-iri.com and info@shipping.nato.int

   a) DTG (Date Time Group) / Unit LAT/LONG position at reporting time;
   b) Track while observing interferences/ From LAT/LONG to LAT/LONG;
   c) Duration while observing interferences - start and end time;
   d) Interference type (systems affected and how);
   e) Assessed direction or coverage area of interference;
   f) Navigation - secondary modes of navigation usage and accuracy vs GPS systems;
   g) Communications systems affected; and
   h) Summary of observations.

5. Owners/ managers and masters of RMI flagged ships are advised to be guided by above.

Enclosure:

1. Republic of Marshall Islands Ship Security Advisory No. 04-22.

Republic of the Marshall Islands

MARITIME ADMINISTRATOR

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SHIP SECURITY ADVISORY No. 04-22

To: **Owners/Operators, Masters, Company Security Officers, Recognized Security Organizations**

Subject: **GLOBAL NAVIGATIONAL SATELLITE SYSTEM INTERFERENCE AND AUTOMATIC IDENTIFICATION SYSTEM SPOOFING**

Date: **28 March 2022**

This Ship Security Advisory (SSA) supersedes SSA No. 07-21.

The United States (US) Maritime Administration (MARAD) has issued US Maritime Advisory No. 2022-005 regarding Global Positioning System (GPS) interference in various locations around the world, particularly in the eastern and central Mediterranean Sea. The US Coast Guard has also received incident reports from the Suez Canal, Cyprus, Malta, and Istanbul, the Persian Gulf near Dammam, Saudi Arabia, and off the coast of Brazil. GPS interference in the maritime domain is also tracked and combatted through the NATO Shipping Centre (NSC).

Automatic Identification System (AIS) devices do not inherently have virus or malware protection, so cybersecurity best practices against hacking should be adhered to if you connect your AIS to a network or update it using removable electronic devices (e.g., USB drives). While it is an invaluable situational tool, AIS should never be solely relied upon for collision avoidance or navigational decision-making.

INCIDENT REPORTING

The Republic of the Marshall Islands (RMI) Maritime Administrator encourages RMI-registered vessels to report any suspected or confirmed electronic interference incidents by sending the following information **in real time** to shipsecurity@register-iri.com and info@shipping.nato.int:

1. DTG (Date Time Group) / Unit LAT/LONG position at reporting time;

2. Track while observing interferences/ From LAT/LONG to LAT/LONG;

3. Duration while observing interferences - start and end time;

4. Interference type (systems affected and how);

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

5. Assessed direction or coverage area of interference;

6. Navigation - secondary modes of navigation usage and accuracy vs GPS systems;

7. Communications systems affected; and

8. Summary of observations.
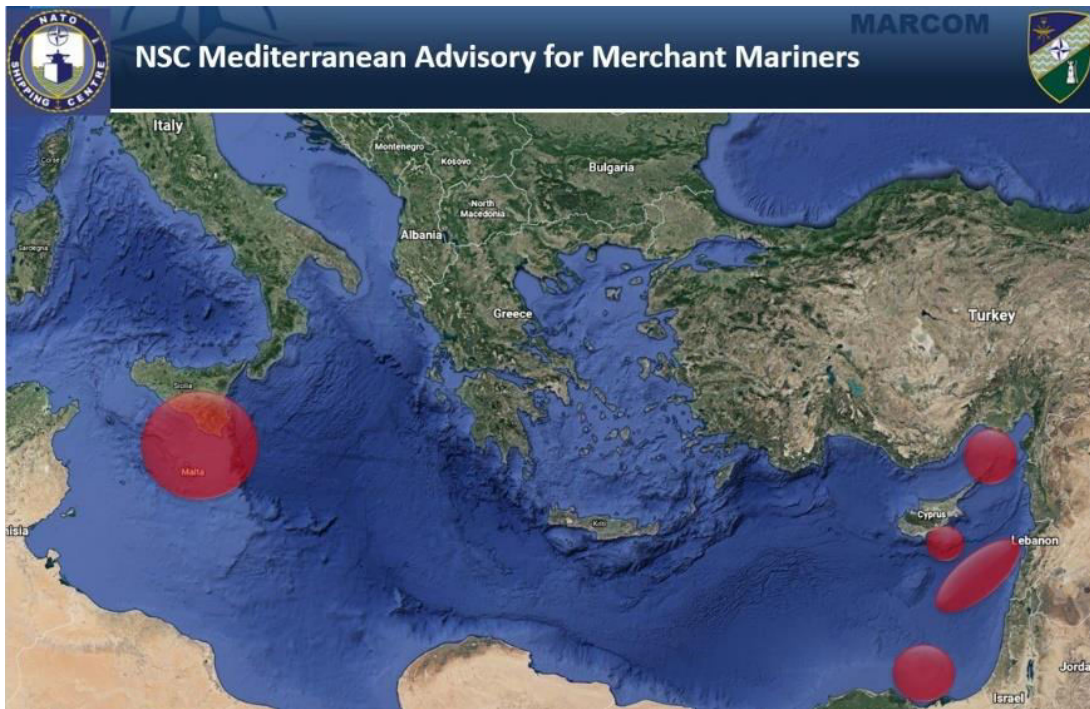
NSC: Threats to Commercial Shipping in the Mediterranean

RMI RESOURCES

1. RMI Marine Guideline 2-11-16

ADDITIONAL RESOURCES

1. The US Coast Guard Navigation Center (NAVCEN) web page contains a chronological list of recently reported GPS problems.

2. NATO Shipping Center (NSC) – Electronic Interferences Assessment

3. INTERTANKO - Jamming and Spoofing of Global Navigation Satellite Systems (GNSS)

4. Maritime Global Security – Cyber and electromagnetic emissions