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Paper for Consideration by MSDIWG11

<i>Submitted by:</i>	the Japan Coast Guard (JCG) of Japan
<i>Executive title:</i>	New Marine web-GIS services, “the MSIL” in Japan
<i>Executive summary:</i>	JCG has been operating new marine web-GIS services, the MDA Situational Indication Linkages, “the MSIL” as one of the MSDI in Japan since last April, 2019. The MSIL collects and provides global marine information.

## 1. Introduction /Backgrounds

In 2015, the Japan’s government made a decision to improve operations of Maritime Domain Awareness, the MDA, by creating MDA concept papers. The uniqueness of the Japan’s MDA is to providing clear understanding on everything related to the maritime domains that could affect the environment and the economy in terms of the MSDI as well as the safety and the security encompassing. In order to build stronger capability of the Japan’s MDA, we, JCG, succeeded to design our MSIL to display various marine-related information under the cooperation with related ministries and research institutes together with extensive coordination by the Japan’s Cabinet Office.

## 2. Analyses/Discussions

There are three features for our MSIL.

At first, the MSIL enables to make maps overlaying several kinds of data by the users’ choices. More than two hundreds pieces of data and information such as weather and oceanographic information, earthquake-related information, and submarine geological maps are stored in the reservoir of the MSIL

Secondly, the MSIL is designed to have user-friendly functions. One-click action on the MSIL enable users to display any necessary map on the top page from the prepared choices whenever users would like to refer to scenes of such as a marine leisure or fisheries. In addition, the MSIL has the function to import maps drawn using the MSIL into private website.

Thirdly, the MSIL is able to refer and provide various real-time information with other systems belonging to different organizations by adopting distributing database structure. That is why the MSIL can visualize various kinds of marine-related data including both static and real-time data. Sometimes the real-time data is too large to store the data in only one database. However using the MSIL effectively enables to collect data from other data holders' databases.

### **3. Conclusions**

The MSIL is web-GIS system capable to gather more than two hundreds of marine information items from thirteen different organizations and to visualize global real-time data on the one screen. It enables users to provide opportunity to choose necessary information from various kinds of marine information possessed by the Government and related institutions depending on their purpose and to show the data maps on the screen.