Proposal for Test Bed of UKC Monitoring Using AIS Communication Using Selected Deep Drafted Vessel in Straits of Malacca and Singapore (SOMS)

Presentation to 7th CF Meeting

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Scope

- Introduction
- Objective and Proposed Scope of Works
- Vessel Requirement for Study
- Key Outcomes of Study
- Estimated Budget

Introduction

- The 37th TTEG commissioned the concept study on UKC monitoring system in SOMS which was completed by OMC International (OMC) in Sept 2013.

- AIS was identified to be most cost effective data communication method to transmit real time UKC information from shore based stations to vessels.

Objective

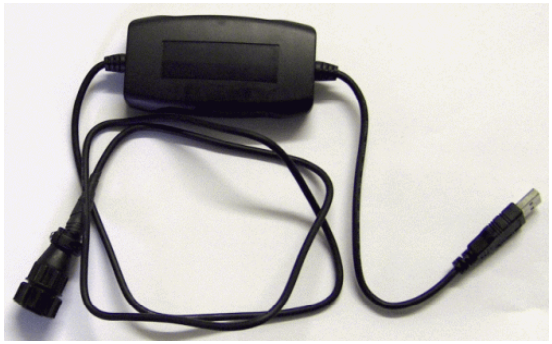
- To propose a test-bed of UKC monitoring using the existing AIS infrastructure on selected deep draft vessels transiting the SOMS.

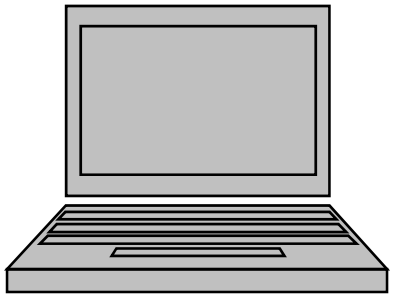
Proposed Scope of Works

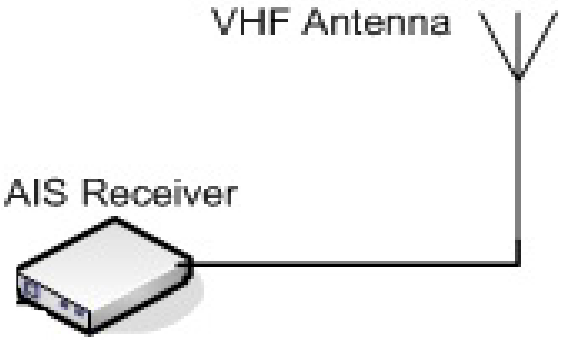
- Test the receiving of messages on board vessels;
- Observation and logging of AIS coverage on board the vessels;
- Analysis of the AIS signal strength while on transit;
- Investigate the effectiveness of using AIS as the method of delivering tidal and meteorological information on the AIS network

Vessel Requirements for Study

- Selection of 2-3 deep drafted vessels
  - Minimum 15m Draft
  - Plying SOMS (One Fathom Bank to Horsburgh Lighthouse)
  - Liaising with ship agent to board and disembark from vessel for installing and uninstalling of equipment
- Use of Vessel Pilot Plug to log data via provided laptop
- May place additional AIS receiver with cables on open space of vessel for better reception
- May place GPS receivers/ Motion Sensors with cables on open space of vessel to measure vessel dynamics







Key Outcomes of Study

- Identification of gaps for AIS transmission of real time data;
- Identify potential issues relating to the practical implementation of AIS to deliver UKC information to vessels;
- Recommendations for the way forward for the UKC monitoring for SOMS using AIS.

Benefits

- The benefits of using AIS for UKC monitoring in SOMS:
  - Infrastructure already in place to transmit and receive AIS data from shore to ship;
  - Cost effective means of data transmission; and
  - No major installation of equipment is required as it uses the vessel's existing AIS communication network

Estimated Budget

- Seek possible funding from the IMO Straits of Malacca and Singapore Fund and other interested user States and stakeholders of an estimated USD $ 90,000 funding of the test bed.

Thank you