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| From: e-NAV Committee | EEP20/49  Formerly e-NAV13/output/10 |
| To: The IALA Council and  VTS, EEP & ANM Committees | 22 March 2013 |

Information Paper

Terms of reference and work program for a working group on testbeds

# Introduction

This information paper serves to advise the IALA Council and all Committees of the formation of a working group of the e-Navigation Committee that will deal with testbed matters.

# Action requested

The IALA Council and all Committees are requested to note the information provided.

**Working Group on Testbeds**

**Terms of reference of Working Group 7 and Work Programme**

# Summary

This document outlines the terms of reference and an associated work program for a newly constituted working group (Working Group 7) of the e-Navigation Committee. The group will deal with e-Navigation testbed[[1]](#footnote-2) matters.

1. **e-Navigation testbeds**

The term testbed is used across many disciplines to describe a platform that is used for research, development or testing. Such a platform can be protected from a live (or production) environment. However, in the maritime domain, it is often necessary to conduct live tests with appropriate safety precautions in place.

In the context of e-Navigation, a testbed is used to demonstrate/evaluate a proof of concept of one or more of the e-navigation solutions, systems and services. These testbeds may be established in a live or simulated test environment.

1. **Background**

In order for e-Navigation solutions to have global application, facilitation by way of collating and sharing the outcomes of testbeds will be required.

At the 58th session of the IMO Sub-Committee on the Safety of Navigation (NAV 58, held in July 2012), the Sub-Committee agreed to the development of guidelines for the harmonisation of test beds. Additionally, one of the conclusions of the e-Navigation Underway Conference of 2013 (January 2013) was that there is a need for a body to co-ordinate the harmonization of testbed results and that IALA should consider taking on this role and submit its results to IMO.

Some of the more prominent testbeds that have been or are being set up for e-Navigation type applications include:

* Marine Electronic Highway (Straits of Malacca and Singapore);
* EfficienSea (Baltic Sea Region);
* ACCSEAS (North Sea Region);
* MONALISA (European Union);
* MarInfo project (St Lawrence River, Canada);
* Under Keel Clearance Management in Torres Strait (Australia); and
* ARIADNA volumetric navigation project.

The implementation of e-Navigation will be phased and iterative. Therefore, it is important that outcomes and lessons learnt from testbed projects be considered in the context of the main elements of the IMO strategy (i.e. user needs, architecture, usability, gap analysis and solutions that are the subject of cost-benefit and risk analyses).

1. **ROLE**

Working Group 7 will be part of the IALA e-Navigation Committee. It will be responsible for gathering summary information on testbeds globally and share the outcomes with the IALA membership and the wider e-Navigation community.

An associated role is to provide expert advice (by way of guidance on harmonisation requirements and results of testbeds) to the IALA membership on testbed matters.

The group will also provide a forum for the IALA membership to discuss issues of common interest and concern in relation to testbeds.

* 1. **Operation**

The group will meet twice in 2013, under the aegis of the e-Navigation Committee. Subsequent meetings will be subject to IALA direction.

* 1. **Members**

IALA members, with an interest (or expertise in) testbeds, are encouraged to participate in the working group.

# Work programme

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| **Task** | **e-NAV 13** | **e-NAV 14** | **2014** | **2015 - Session 1** | **2015- Session 2** |
| Provide guidance on harmonisation requirements and results of testbeds. | X | X |  |  |  |
| Ensure that a testbed portal (e-navigation.net) is developed in accordance with the working group’s vision. | X | X | X |  |  |
| Provide an online forum for the IALA membership to discuss issues of common interest and concern in relation to testbeds. |  | X | X |  |  |
| Gather reports on testbeds globally and share with the IALA membership. |  | X | X | X | X |
| Develop and publish a list of e-navigation solutions, systems and services that will benefit from testbeds. |  |  | X | X | X |
| Promote the testbed portal as the sole repository for testbed results and requirements. |  |  | X | X | X |

1. A testbed (also commonly spelled as test bed in research publications) is a platform for experimentation of large development projects. Testbeds allow for rigorous, transparent and replicable testing of scientific theories, computational tools, and new technologies.

   *Reference: http://en.wikipedia.org/wiki/Testbed* [↑](#footnote-ref-2)