

**4th Meeting of the Nautical Information Provision Working Group (NIPWG)
and Workshop on the Visualization of Nautical Information
University of New Hampshire, Durham, USA, 22 – 26 May**

The 4th meeting of the Nautical Information Provision Working Group (NIPWG) took place in Durham, New Hampshire, USA, from 22 to 26 May, hosted by the Center for Coastal and Ocean Mapping of the University of New Hampshire (UNH). The IHO Secretariat was represented by Assistant Director Yves Guillam.

The NIPWG is the IHO working group reporting to the Hydrographic Services and Standards Committee (HSSC) that is responsible for the development of S-100 conformant product specifications in support of future e-navigation services that are intended to provide mariners with harmonized up-to-date information on integrated displays.

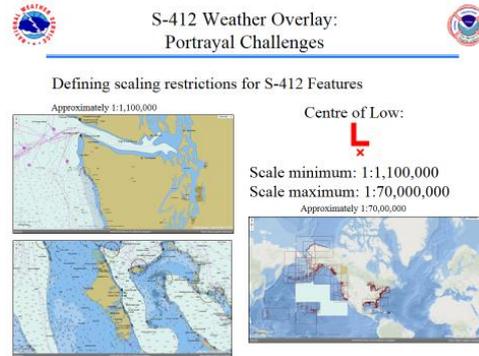
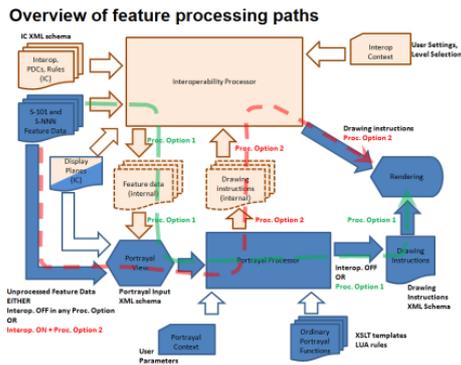
The first two days of the meeting and the morning session of the third day were dedicated to a workshop on the visualization of nautical information (VONI), attended by about 40 participants (Member States representatives - including the Chairs of the Nautical Cartography Working Group and the S-100 Working Group - , and expert contributors from industry and academia).



**NIPWG-4 participants at the Center for Coastal and Ocean Mapping
of the University of New Hampshire (UNH)**

Test bed examples, use-cases for data (crossing an area, berthing...) and web-based innovations for the display of static and real-time varying objects depicting nautical information, in multiple national languages, were shared and discussed at length, in a brainstorming mode. Following presentations depicting interesting and promising innovations that are in progress at various national levels, some participants suggested that the future maintenance regime of nautical products in general should be addressed, by taking in to account the possibilities offered by new technologies (print-on-demand, near-real time updates, etc.). A live practical exercise for submitting feature definitions and attributes related to S-122 - *Marine Protected Areas* - to the IHO Geospatial Information Registry through the NIPWG wiki was organized for participants.

A number of conclusions were made at the workshop, including the need to create a “user handbook” or “e-tutorial” to assist Hydrographic Offices (HOs) on better understanding the data modelling and data-flow process and to encourage them to develop their own roadmaps to prepare for the conversion of their current data/information into S-100-based products, as appropriate.



Interoperability and portrayal issues were addressed at the VONI workshop during NIPWG-4

The plenary NIPWG meeting started on the third day immediately after the workshop. The meeting was chaired by Mr Jens Schröder-Fürstenberg (Germany). Twenty-seven delegates from 14 Member States (Brazil, Denmark, Finland, France, Germany, Italy, Japan, Netherlands, Norway, Republic of Korea, Spain, Sweden, United Kingdom, and United States) and expert contributors (Anthropocene Institute, IIC Technologies, NOAA-Weather, SPAWAR, Portolan Sciences, SevenCs, University of New Hampshire) attended the meeting.

The meeting considered the high-priority development of the S-100 based product specifications assigned to the NIPWG, particularly S-122 (*Marine Protected Areas*) and S-123 (*Radio Services*). These two product specifications are being developed under contract. The first drafts had been delivered prior to the meeting. Further review by NIPWG members is now underway before the contract can be considered as completed.

Thanks to the input of the expert contributors, the NIPWG members' awareness was raised on a number of interoperability portrayal and conceptual issues related to features in other product specifications such as S-111 (*Surface Currents*) and S-412 (*Weather Overlay*). The meeting was enlightened by a presentation delivered by the Chair of the S-100 Working Group that explained the complexity of this topic. The discussion focussed on those features that should be displayed on ECDIS and those that could remain in the back-of-bridge systems or could be considered as additional maritime layers for non-navigational uses.

The NIPWG agreed that the next product specification to be considered as a high priority item should be S-127 (*Traffic Management*) due to its importance in under keel clearance management systems. A proposal will be submitted to the next meeting of the HSSC for endorsement.

The decisions of the 1st Session of the IHO Assembly were noted - in particular the amendments to IHO Resolution 4/1967 on submarine cables.

With regard to the definition of e-Navigation Maritime Service Portfolios (MSP) by the IMO, the NIPWG considered that its current work plan is adequate to support the future implementation of relevant MSPs through the delivery of appropriate data (which is a high-priority for HOs). However, the NIPWG considered that it cannot drive by itself the delivery of MSP services, due to the lack of resources and guidance. Subject to the outcome of the forthcoming meetings (98th and 99th meetings of the IMO Maritime Safety Committee, and 1st meeting of the IMO-IHO Harmonization Group on Data Modelling), the NIPWG considered that the current strategy in place in the IHO, is consistent with the IMO's e-Navigation Strategy Implementation Plan.

At the end of the meeting, Mr Jens Schröder-Fürstenberg (Germany) was re-elected as Chair of the NIPWG, and Dr Edward Hosken (United Kingdom) as Vice-Chair. Mr Thomas Loeper (USA) was also

confirmed as secretary of the working group. The organizations supporting the office bearers were thanked for their effort.

The 5^h meeting of the NIPWG is scheduled to be held in Genoa, Italy, from 12 to 16 March 2018.

Further information concerning the meeting and the workshop is available on the IHO web site at www.iho.int > Committees & WG > NIPWG > NIPWG-4.