OPENING STATEMENT

Dear colleagues, IHO members, NOAA, Mister Chair, Mister Secretary of TWLWG,

Due to my maternity leave which lasts up to the middle of May, I could not attend and chair our IHO meeting at Silver Spring. I apologize for it.

I would like first of all, on behalf of the Organization, which now numbers 85 member states with Georgia, Viet Nam and Brunei Darussalam recently depositing their letters of accession, and the Bureau, to thank the NOAA Office of Coast Survey for hosting this 7th meeting of the International Hydrographic Organization's Tide and Water Level Working Group here in Silver Spring. This Working Group has established a long standing and excellent reputation for expertise in all the issues that concern the analysis and promulgation of tidal data.

It is pleasing to note the work being progressed across numerous strands since the last meeting in Wollongong; this pace shows no signs of slowing, in fact the opposite is true as the demands from the maritime industry and customers grow and their desire for solutions to meeting the future e-navigation environment increase. The importance of the work being undertaken by this group has been brought into focus by the developments in the Singapore-Malacca Strait marine highway and their need for ECDIS related tidal and current products.

There is no doubt the pressure for progress on S-112, the dynamic water level data product specification, and S-111, surface current product specification, is increasing and their importance is reflected in the direct involvement of the S-100WG chair and the profile and support given to the work by a number of HOs. TWLWG6 was an important step forward recognized by the identified Work Package teams created in Wollongong, it is vital the momentum is maintained through this meeting and the year ahead.

WP1 Product specification (Leader-Australia / Participants-All): Zarina; WP2 Real time data transfer format (Leader-UK / Participants-All): Chris; WP3 Gridded product (Leader-USA / Participant-All): Stephen; WP4: Surface tidal current (Leader-SCWG chair / Participants-All): Kurt.

Two strands, which are common to both S-112 and S-111, are the data transfer standard and the presentation/visualization, an area on which SCWG have been working with particular focus. It is appropriate and timely to develop a data format standard for tidal inputs into ECDIS. From TWLWG6

and the present meeting, exchanges between SCWG and TWLWG have allowed us to begin to bring together the knowledge on data specification for surface currents and tidal information. In the continuity of it, I suggest to the group that one point that could be in mind is avoiding overlapping between current specification and the tidal variables specification in future ECDIS.

In addition to the S-100 based product specification developments, the on-going work on the standard constituent list, the standards for digital tide tables, the study of long term data sets for global sea level rise, the comparison of tidal predictions and the revision of Resolution 3/1919 must not be forgotten.

From work done from TWLWG6, some highlighted questions concern the grid that should be specified in the future product specification. Australia noticed that both the tides and bathymetry will need to be gridded and the tidal layer applied to the bathymetry layer and the tides are not linear. From this point, what could be most tailored to the requirement? This is one question the group should answer (referring to work package 3).

There is a big issue to define the data transfer format and to do it sufficiently flexibly to fit the dynamic nature of water and current level. Among exchanged ideas, there is one that should be discussed by the group. Indeed, could we consider for specific areas that ports/ harbours calculate the solution locally and then transmit a layer in a standard data format, for which IHO/TWLWG is in a position to mandate the data transfer standard. Does the future solution allows ECDIS manufacturers to focus on one data standard for the transmission of a real-time water level overlay, reduces processing requirements onboard and allows shore authorities to use whatever gauges they prefer.

There is a clear need of tidal predictions being used for planning and real-time tide / AIS broadcast being used for actual route navigation.

Security of tidal information transmitted in future products should also be addressed, on the basis of AIS.

It's planned from TWLWG6 to pass on synthesis of each WP defining the tidal applications in future products. The synthesis remains and I think this TWLWGs' synthesis will strongly be helped by the current meeting.

For Resolution 3/1919: In 2014, several discussions focused on Resolution 3/1919. One objective is to achieve a solution compromise for chart datum definition. I suggest rewording tidal areas and non tidal areas (maybe removing the range, 30 cm criteria, keeping the idea of tidal water and non tidal water.../...) Another option that has been raised by other IHO group would be to separate technical recommendation from the definition one. The latter one will be in the Hydrographic Dictionary. Below the definition term, range specification or more detailed specification could be included in terms of additional note.

More details will be discussed in the dedicated session of current meeting.

Noting the focus on coastal zone management and risk modelling, the group must maintain its engagement with GLOSS programmes and be prepared to contribute. This aspect was amply demonstrated in the outcomes from the TOWS-8 meeting in Japan earlier this year, a report from which will be presented later in the meeting.

Capacity Building remains a key strategic goal of the IHO and the Tides and Water Level course is much in demand with its development into a more in depth content. CBSC has approved and funded courses for the RSAHC and the SWPHC, there is no doubt more will be programmed at the CBSC meeting in Mexico in late May. TWCWG needs to develop a cadre of experienced instructors to spread the load and ensure a consistent level of content delivery; noting that travel, accommodation and a reasonable level for expenses for the instructors are included in the funding allocation. It is recommended an individual is identified as the focal point owner and reviewer of the training material, to whom all amendments are sent by instructors, on completion of each course.

The integration of the TWLWG and SCWG will inevitably absorb some time and energy; both groups have much to give. However it is hoped the creation of Project Teams to take forward the various Product Specification work stands can be quickly established and the momentum maintained. The officers of the new Working Group and the Project Teams will have important roles to play.

All these issues are of major significance for the future, they will impact on the work of this Working Group and its Project Teams over the next few years and will require significant input as they are developed and taken forward. There is much work to be done.

I would like to welcome you all in this meeting and I wish to you, Mr Chairman, and the participants, fruitful deliberations on the various issues to be examined as well as an enjoyable stay in Silver Spring. I thank Vice Chair, Christopher Jones, who accepted to chair the meeting and David Wyatt for his great efficiency. I'd like to thank again NOAA and Stephen Gill, particularly for welcoming us at Silver Spring. To end the opening statement, I'd like to tell you that if the group is active and full of expertise, it's thanks to the participation of each person of the group. It's pleasant and motivating to be a part of the group. Please receive my best regards and have a nice, pleasant and fruitful meeting at Silver Spring

Best regards,

Gwenaële Jan, very well supported by David Wyatt and Christopher Jones