## 2<sup>nd</sup> Meeting of the Nautical Cartography Working Group (NCWG) IHB, Monaco, 26 – 29 April 2016

The second meeting of the IHO Nautical Cartography Working Group (NCWG) took place at the IHB in Monaco from 26 to 29 April. The meeting was chaired by Mr Jeff Wootton (Australia), supported by Andrew Heath-Coleman, Secretary (UK). Twenty-three delegates from 19 Member States (Australia, Brazil, Canada, Egypt, Finland, France, Germany, Iran (Islamic Rep. of), Italy, Japan, Korea (Rep. of), Latvia, Netherlands, Norway, Spain, Sweden, Turkey, United Kingdom, USA), two Expert Contributors (Esri, Jeppesen), and the IHB attended the meeting. Assistant Director Yves Guillam and Mr Yong Baek, Project Officer seconded by the Republic of Korea, represented the IHB.



NCWG-2 gather on the rooftop of the IHO Headquarters

Director Gilles Bessero welcomed the members and opened the meeting inviting participants to think "outside the box" when addressing some of the important work items on the agenda such as the future of the paper chart. Director Bessero and President Robert Ward participated in several of the discussions, providing useful views and guidance to the meeting participants.

The Nautical Cartography Working Group is now well established and working under its Terms of Reference that were approved at the 7<sup>th</sup> meeting of the Hydrographic Services and Standards Committee (HSSC-7) in November 2015. The Working Group, which combines elements of disbanded working groups that separately covered data portrayal on paper chart and electronic charts, is much more focused on the chart content itself and the portrayal requirements than on the sole maintenance of IHO Publication S-4 - *Regulations for the International (INT) Charts and Charts Specifications of the IHO* – even though the consideration of clarifications or revisions to S-4 remains relevant for assisting cartographers in their day-to-day work. A recent example was the need to clarify how to chart an important sub-surface floating pipeline. In relation to the three

(English, French, Spanish) new editions of the IHO Publication INT 1 - Symbols, Abbreviations and Terms used on Charts, that have been issued by Germany, France and Spain respectively since the last meeting, proposals were discussed to establish a repository of high resolution symbols in order to avoid further duplication of effort by other Hydrographic Offices that issue their own version of INT 1 and implementers of the standards.

The meeting noted that new technologies and very high resolution screens may offer, in the future, the possibility of redesigning symbols used in ECDIS for an improved portrayal of the main layer of information (the electronic navigational chart - ENC) in combination with other S-100-based products.

The Working Group considered the first tranche of portrayal requirements for S-100-based product specifications (weather overlays, S-101 ENC, marine protected areas, quality of bathymetric data / category of zones of confidence [CATZOC] ...) received from other working groups, following a proposal agreed at the HSSC-7 to trial an all-encompassing process that involves all relevant IHO working groups and other stakeholders (industry, academia). In that context, it was agreed to set up a small portrayal sub-working group to establish a protocol to assist developers of S-100-based product specifications in drafting portrayal submissions. The establishment of an integrated project team drawing on the different working groups to address portrayal issues in the development of S-101 was also discussed.

The Working Group continued work on its proposal for the preparation of a draft new edition 3.0.0 of IHO Publication S-11, tentatively entitled "Guidance for the Preparation and Maintenance of International Chart and ENC Schemes - Catalogues of INT Charts and ENCs".

The Chair of the NCWG informed the participants that he will step down from his position at the end of September 2016 when he retires from service in Australia. In the absence of any candidate to replace the recently retired Vice-Chair, NCWG members were invited to consider nominating for the position of Vice-Chair as soon as possible in view of an election by correspondence.

The plenary meeting was followed by a meeting of the correspondence group on the future of the paper chart that had been identified by HSSC-7 as a high priority work item.

Further information concerning the meeting is available on the IHO web site at www.iho.int > Committees & WG > NCWG > NCWG-2.



An example of a potential portrayal of unambiguous and self-explanatory symbolization for the CATZOC bathymetric data quality indicator presented at the meeting