

**8TH MEETING OF THE NAUTICAL CARTOGRAPHY
WORKING GROUP (NCWG)
Wollongong, Australia, 15-18 November**

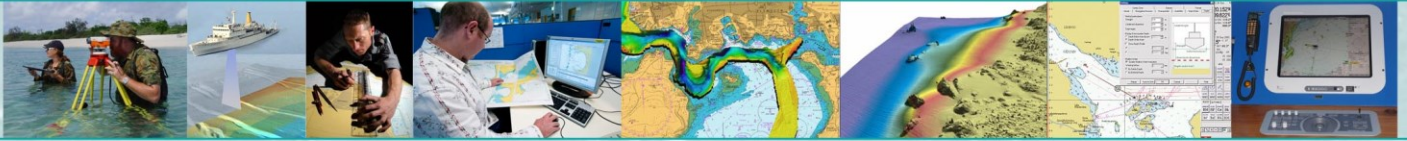
Contribution to the IHO Work Programme 2022	
Task 2.1.2.4.	Organize, prepare and report meetings of the NCWG

The 8th meeting of the Nautical Cartography Working Group (NCWG8) was held in Wollongong, Australia from 15 to 18 November 2022 in a hybrid format.

The meeting was chaired by Mr Mikko Hovi (Finland), supported by Mr Nick Rodwell (UK, Vice-Chair and acting Secretary). 33 delegates from 19 Member States (Australia, Brazil, Canada, China, Denmark, Finland, France, Greece, India, Indonesia, Italy, Netherlands, New Zealand, Portugal, Republic of Korea, South Africa, Sri Lanka, United Kingdom and USA) and 6 Expert Contributors attended the meeting. The IHO Secretariat was represented by Technical Standards Support Officer Jeff Wootton.



NCWG8 in person participants

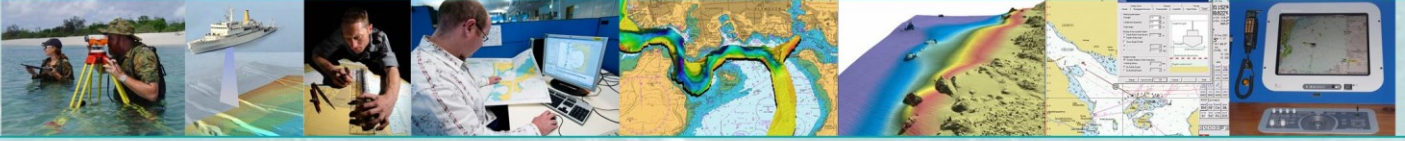


Some NCWG8 on-line participants

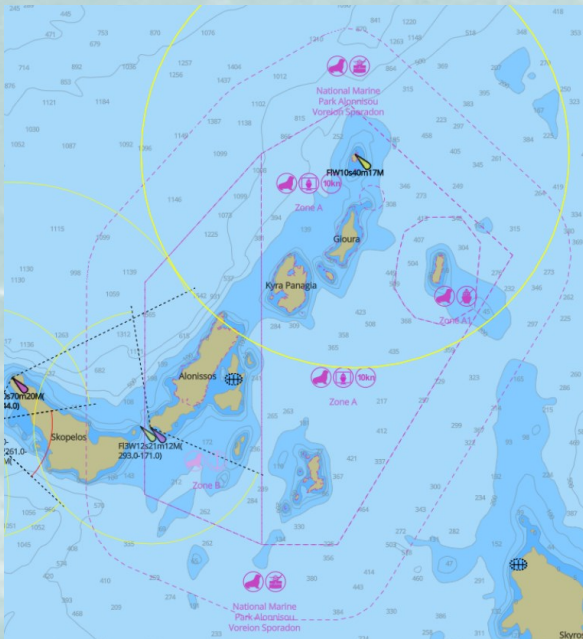
The Chair opened the meeting, welcoming delegates to this first opportunity for the NCWG to meet face to face in three years. In her opening remarks, Australian Hydrographic Office acting Director Ms Hilary Thompson stressed the importance of nautical cartography for both paper and digital charting; and highlighted the coming challenges with the introduction of S-100 ECDIS in ensuring a consistent and cognitive end-user experience in a multi-product environment.

The Chair briefed the meeting on the Decisions and Actions affecting the NCWG from the HSSC14 meeting held in May 2022 and C-6 held in October 2022. Of particular note were discussions at both HSSC and Council related to the future of the paper Nautical Chart. While the decision taken at A-2 by which the priority is to develop guidelines for the automated production of paper Charts meeting S-4 (as the Standard for minimum Chart content) chart content requirements from S-101 ENC data were confirmed by both HSSC and Council, it was reported that a proposal had been submitted to both HSSC and Council to establish a minimum Standard for fully automated paper Chart output from ENC. The proposal was not endorsed, however the Council did endorse an offer of the USA to document use cases and develop associated guidelines, as well as identify challenges with S-4, to achieve automated production of derived paper charts from ENC content databases and report to the NCWG/HSSC for consideration.

The meeting received a report from Canada, as the lead for the Baseline Symbology Project Team (BSPT), on progress in the development of set of symbols for automated paper chart production from S-101 ENC data. The BSPT Terms of Reference were reviewed and a set of deliverables for the Project were agreed; and the Project Team was tasked with developing a Project Plan specifying the milestones, timeline and deliverables for the Project. A member of



the NCWG was appointed to the IHO Geospatial Information (GI) Registry, Portrayal Register Domain Control Body, which is responsible for evaluating all portrayal proposals to the GI Registry.



Marine Protected Area symbols overlaid on NC

Informative presentations were made by the Centre for Coastal and Ocean Mapping - Joint Hydrographic Center, University of New Hampshire (CCOM-JHC/UNH) on efforts for the development of symbology for new S-100-based Product Specifications; and continuing investigations into new alternatives for the representation of data quality indicators (equivalent to S-57 CATZOC) for bathymetric data on ECDIS displays. Significantly, for the first time in the development of new alternatives for the representation of data quality indicators, a comprehensive user survey was conducted of professionals working with Charts (mariners, cartographers, hydrographers). The results of this survey will be used to inform further development.

A number of specific cartographic proposals related to INT1 and S-4 were considered by the meeting, a number of which were directly related to ENC encoding and portrayal. The meeting agreed to include a lower priority task to begin addressing any inconsistencies between S-4 and the ENC related Standards.

At the end of the meeting, the Working Group decided to hold its next meeting (NCWG9) from 07 to 10 November 2023, with the venue to be determined.