



# Nautical Cartography Working Group

## **Future of the Paper Nautical Chart**

### **NCWG5**

NCWG5, Stockholm, Sweden, 5 - 8 November 2019



- First idea originates at CPSCWG9 in 2012
  - Discussion about the relevance of INT chart concept expanded to the future of paper charts in general
- HSSC approved work item since 2014
  - Future of the paper chart when users transition from paper charts to ENC's
- This preliminary report has been compiled by NCWG's Future of the Paper Chart Sub Working Group



IHO

## THE CHALLENGE

International  
Hydrographic  
Organization

- The sales of paper nautical charts is declining
- The sales of ENC's is increasing
- Benefit-cost ratio of the raster charts is getting too low to produce
- Demand for paper charts still exists
- Each HO is affected differently



IHO

# POSSIBLE SOLUTIONS (NON-EXCLUSIVE)

International  
Hydrographic  
Organization

Optimize portfolio	Optimize content	Optimize portrayal	Optimize production
Reduce the number of charts available.	Reduce number of features in each chart.	Reduce manual cartographic editing.	Reduce duplicated work and parallel workflows.
May be done through reduced geographical coverage or reduced scales produced.	May be done through reduced level of detail or number of feature classes.	May be done with rule based cartography.	May be done through single source chart production database or similar solution.
Extreme case: Stop producing paper charts.	Extreme case: Reduce content to the minimum level still acceptable to IMO.	Extreme case: Chart creation if fully automated with no human interaction needed.	

