The 2nd Session of the Assembly

Agenda Item 5

PRO 1.9

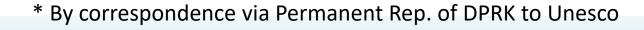
Report on the informal consultation process for the future of S-23





Explanatory Note

- A1 tasked the Secretary-General to facilitate an informal consultation process regarding the future of S-23 among interested Member States
- Ten Member States indicated interest:
 - China, Democratic People's Republic of Korea, Italy, Japan, Oman, Portugal, Republic of Korea, Russian Federation, United Kingdom and United States of America.
- Secretary-General started the process through some informal "talks":
 - Involving China, Democratic People's Republic of Korea*, Italy, Japan, Portugal,
 Republic of Korea, Russian Federation, United Kingdom and United States of America.
- Secretary-General chaired two informal consultative meetings with participation of Democratic People's Republic of Korea, Republic of Korea and Japan, and attendance of UK and USA as observers.





Explanatory Note (2)

- At first, the participants jointly reviewed the options proposed by the S-23WG between 2009 and 2012 as potential approaches for a renewed revision process.
- In a second step, the Secretary-General requested proposals for new options beyond those made by the S-23WG for such renewed approach.
- Both exercises did not result in new suggestions how to revise S-23 successfully.
- In the absence of a consensual approach for the revision of S-23, the Secretary-General presented a concept for the modernization of standardization of the limits of the oceans and seas.

Future of S-23 – Modernization of Standardization of Limits of Oceans and Seas

- The core of the proposal to make S-23 content fit for digital dissemination is the transformation of information contained in a database of attributed area feature objects with global coverage.
- The resulting dataset should be based on modern digital technology and facilitate the following aims:
 - Compatibility with the S-100 model for the purpose of IMO's e-Navigation concept.
 - Provision for the variety of Geospatial Information Systems (GIS) being utilized by the IHO Secretariat, national Hydrographic Office services, including Marine Spatial Data Infrastructures (MSDI); and the respective national reporting obligations within the framework of UNCLOS.

Future of S-23 – Modernization of Standardization of Limits of Oceans and Seas (1)

- Higher resolution of the standardized limits of the oceans and seas by means of vectorized chainnode topology.
- Greater flexibility offered to users and systems for geographical areas.
- Customization of displayed information about the limits according to regional and national priorities; and end user requirements.
- > Preparedness for the application of future voice command functionality of GIS applications; application of artificial intelligence; and "deep learning" on marine geoinformation.
- Support of machine-to-machine communication for the facilitation of autonomous shipping.

Conclusion

- A transformation of S-23 limits of oceans and sea areas into a digital dataset named "Polygonal demarcations of global sea areas" would facilitate the joint standardization and service activities of IHO and other adjacent domains to support the e-Navigation concept of the IMO.
- The affected standards of IHO and IMO that currently refer to S-23 can be adapted to the new dataset solution with comparably low effort.
- S-23 is kept publicly available as part of the existing IHO publications to demonstrate the evolutionary process from the analogue to the digital provision of limits of oceans and seas.

Package of interrelated Proposals (1)

Assembly is invited to take note of the implementation of the process and its results, and subsequently:

- to agree on the provision of digital coordinates for limits of oceans and seas to meet requirements of contemporary Geographic Information Systems.
- to task the appropriate IHO subordinate technical body
 - ➤ to develop a dataset named "Polygonal demarcations of global sea areas" to designate geographic sea areas by a system of unique numerical identifiers only, and
 - ➤ to profile or adapt appropriate IHO S-100-based standards through a new S-130 dataset, to facilitate the digital provision of the "Polygonal demarcations of global sea areas".

Package of interrelated Proposals (2)

Assembly is invited to take note of the implementation of the process and its results, and subsequently (continued):

- to consider, if and when necessary, the development of basic guidelines for the allocation and display of attributes of sea areas to be applied to Geographic Information Systems.
- to note that S-23 is kept publicly available as part of existing IHO publications to demonstrate the evolutionary process from the analogue to the digital provision of limits of oceans and seas.
- to task the Secretary-General, as part of the process to consider subsequent amendments to the relevant IHO Resolutions 32/1919 as amended and 13/1919 as amended, for endorsement by the Council, if and when appropriate.
- to instruct the Secretary-General to take any other actions considered necessary.