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Activities relating to the Working Group on Publicity and Funding

Outreach Activities for Promoting a Wider Use of Marine Geographical Names^{*}

Submitted by Republic of Korea

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Outreach Activities for Promoting a Wider Use of Marine Geographical Names †

SUMMARY

In 2014 and 2015, the Korea Hydrographic and Oceanographic Agency (KHOA) conducted various outreach activities with an aim to promote a wider use of marine geographical names. More specifically, KHOA (1) produced catalogues of old charts that show the history of marine geographical names; (2) hosted international symposiums on undersea feature names; and (3) developed and implemented educational programs on marine geographical names for elementary school students and elementary and secondary school teachers to enhance their understanding and use of marine geographical names by revising and updating the 'Guideline for Standardization of Marine Geographical Names.'

In 2014 and 2015, KHOA conducted various outreach activities which can be largely classified into three types as below, in order to promote a wider use of marine geographical names.

<u>1. Production of Catalogues of Old Charts</u>

KHOA produced catalogues of old charts that show the history of marine geographical names. In 2014, KHOA published the 'Trace of Korean Sea from Sea Charts' by compiling around 60 old charts produced by several western countries and Japan since 18th century and by the Republic of Korea (ROK) after the Japanese colonial rule ended. The catalogues enable one to understand not only geographic information about seas but also their history. In 2015, KHOA compiled charts which represent the economic growth of the ROK and major changes in ports since independence, and published the 'Trace of Korean Economic Growth from Charts'. In particular, the two catalogues allow one to visually comprehend the evolution of marine geographical names (Figure 1).



Figure 1. An Example of a chart in 'Trace of Korean Sea from Sea Charts': The Deokjeok Archipelago was marked as the 'Prince Imperial Archipelago'.

[†] This working paper pertains to the UNCSGN resolutions IX/7 (Dissemination of information concerning the origin and meaning of geographical names) and I/7 (Regional meetings).

2. Hosting of International Symposiums

The 9th International Joint Symposium on Application of Marine Geophysical Data and Undersea Feature Names and the Fall Annual Meeting of Hydrographic Society of Korea was held at KHOA from 30 October to 1 November 2014. The Symposium was organized into three sessions - Undersea Feature Names and Hydrography, Undersea Features and Application of Marine Geophysical Data, and Sustainable Marine Spatial Data Management - at which eleven papers were presented.

The 10th International Symposium on Application of Marine Geophysical Data and Undersea Feature Names was held at Ewha Womans University from 4 to 6 November 2015. There were four sessions to the Symposium - Retrospects and Prospects, Ocean Mapping and Management of Oceanographic Data and Undersea Feature Names, Outreach Service of Undersea Feature Names, and Enhancement in Technologies of Undersea Features. Eleven papers were presented followed by discussion (Table 1).

Year (No.)	Session	Title	Presenter
2014 (9 th)	Undersea Feature Names and Hydrography	The German Hydrographic Society: 30 Years Anniversary and its Contribution for Practical Undersea Nomenclature in Germany	Hans Werner Schenke (Professor, Alfred Wegner Institute for Polar and Marine Research / SCUFN Chairman, TSCOM Member, Germany)
		Current Status of Ocean Management in Korea	Dae Choul Kim (President, The Hydrographic Society of Korea) Seong-Pil Kim (Senior Researcher, Korea Institute of Geoscience and Mineral Resources)
	Undersea Features and Application of Marine Geophysical Data	Macro-features and Micro-features: The Changing Nature of Seafloor Mapping Objective Description of Undersea Features from Integrated Analysis of Marine Geophysical Data	Norman Cherkis (President, Five Oceans Consultants, SCUFN Member, TSCOM Member, USA) Jeong Min Lee (Director of Research Institute of Korea Sea Bed Information)
		History of Geo-scientific Study of the Southern Philippine Sea	Yasuhiko Ohara (Researcher, Hydrographic and Oceanographic Department of Japan, SCUFN Member, Japan)
		The Experience of Planning and Compilation of Transit Surveys for Filling of Gaps on the Bathymetric Map	Ksenia Dobrolubova (Geological Institute of Russian Academy of Science, SCUFN Member, Russian Federation)
		The Mechanism of the East Sea Opening	Youn Soo Lee (Researcher, Korea Institute of Geoscience and Mineral Resources)

 Table 1. The List of Presented Papers in International Symposiums, 2014 and 2015

Year (No.)	Session	Title	Presenter
2014 (9 th)	Sustainable Marine Spatial Data Management	Global Trends in E-Navigation	Jin Hyoung Park (Senior Researcher, Korea Research Institute of Ships & Ocean Engineering)
		From Data to Knowledge: Bathymetric Data Management and Application Strategies	Sung Gon Kim (Senior Researcher, Ziinconsulting.inc, Republic of Korea) Eunmi Chang (CEO, Ziinconsulting.inc)
		Evaluation of Capabilities of Wave Glider for Long-term Ocean Observation	Yo Sup Park (Ph.D, Korea Institute of Ocean Science & Technology)
		Geological Characteristics of the Sea around Jeju Island in Korea	Young Kyo Seo (Ph.D, Gematek)
2015 (10 th)	Retrospects and prospects	The International Symposium on Application of Marine Geophysical Data and Undersea Feature Names, 2006~2015 : Retrospect	Hyo Hyun Sung (Professor, Ewha Womans University) Hyun-Uk Lee (Professor, Ewha Womans University)
		Scientist's false modesty in undersea feature naming	Hans Werner Schenke (Professor, Alfred Wegner Institute for Polar and Marine Research / SCUFN Chairman, TSCOM Member, Germany)
	Ocean Mapping and Management of Oceanographic Data and Undersea Feature Names	Modern usage of toponyms in the East Sea (Sea of Japan) in international published literature since 1960: A Retrospective	Norman Cherkis (President, Five Oceans Consultants / SCUFN Member, TSCOM Member, USA)
		The scientific need for mapping of abyssal basins	Nataliya Turko (Researcher, GIN-RAS / GGC Member, Russian Federation)
		Evolution of generic terms of undersea feature names: a historical review	Yasuhiko Ohara (Researcher, Hydrographic and Oceanographic Department of Japan / SCUFN Member, Japan)
	Outreach Service of Undersea Feature Names	Marine geophysical implications: from underwater structure to international boundary delineation – two case studies	Mohammad Zahedur Rahman Chowdhury (Sub-Committe member, GEBCO)
		Seamounts found in Indonesia water	Djoko Hartoyo (Coordinating Ministry for Maritime Affairs, Republic of Indonesia)

Year (No.)	Session	Title	Presenter
2015 (10 th)	Outreach Service of Undersea Feature Names	A comparison of the mapping results of undersea feature names on web mapping service applications	Young-Hoon Kim (Professor, Korea National University of Education) Jeoung-Hwan Park (Ph.D. Candidate, Korea National University of Education)
	Enhancement in Technologies of Undersea Features	Technology development trend of Korea to cope with the S-100 of IHO	Sewoong Oh (Senior Researcher, KRISO)
		Recent development on high-resolution marine geophysical survey for revealing seafloor and subsurface sediments	Sang Hoon Lee (Korea Institution of Ocean Science and Technology)
		Utilization of multibeam backscatter data for detecting undersea features	Jeong Min Lee (Director of Research Institute of Korea Sea Bed Information) Moon Bo Shim (Head of International cooperation team, KHOA) Kwang Nam Han (Assistant Director of International cooperation team, KHOA)

3. Development and Implementation of Educational Programmes on Marine Geographical Names for Elementary School Students And Elementary and Secondary School Teachers

(1) Development and Implementation of Marine Educational Programme for Elementary and Secondary School Teachers

KHOA implemented a marine educational programme for 91 elementary and secondary school teachers to nurture their professionalism in teaching marine geographical names. It was an opportunity to enhance their understanding of marine geographical names, promote marine education, and allow a new paradigm for marine geographical names and territory. The programme consisted of various activities including theoretical lectures, discussions, presentations, and on-board training, which were designed to promote active participation from the teachers (Figure 2).

The content of the programme included seven lectures: (1) changes in the name of sea; (2) KHOA as a starting point of ocean observation and hydrographic surveying; (3) whither marine education; (4) marine geological resources and their development; (5) climate change and marine ecosystems; (6) undersea feature and marine geographical names; and (7) the reality of marine education. In addition to the lectures, on-board training and a visit to the Korea National Maritime Museum were included in the programme.

At the end the programme, KHOA conducted a questionnaire survey to find out how the teachers thought about the programme. The results were useful to identify ways to improve the programme.



Figure 2. Group Photo of Elementary and Secondary School Teachers during the Marine Educational

(2) Development and Implementation of the Marine Exploration School Programme for Elementary Students

The Marine Exploration School Programme was conducted in 2014 and 2015 with thirty invited elementary school students in each year. The programme comprised charts and marine geographical names, making marine topography, Challenge! Marine Geographical Names Quiz, treasure hunt for marine geographical names, producing charts, a visit to a hydrographic survey equipment exhibition, and an introduction to KHOA. Such a diverse range of activities encouraged active participation from the students (Figure 3).



Figure 3. Elementary School Students during the Marine Exploration School Programme

4. Future Plans

KHOA will continue making an effort to standardize domestic marine geographical names by upgrading the 'Guideline for Standardization of Marine Geographical Names'. More specifically, KHOA will review different types of sea surface names, and continue to categorize undersea feature names by generic terms to reflect national circumstances, while having a basis in the IHO Publication B-6. Furthermore, KHOA plans to prepare a manual for romanizing Korean marine geographical names.