

# **2016 REPORT of Outreach Working Group**

Oct. 13, 2016

Hyo Hyun Sung, Eunmi Chang, Walter Reynoso, Vicki Ferrini,

## **2016 Agenda of Outreach Working Group**

Agenda 1. To discuss organization issues  
in Outreach Working Group

Agenda 2. To draft Terms of Reference and Rules of Procedure for GEBCO  
Outreach Working Group

Agenda 3. To review outreach activities and discuss  
near-future plans for outreach

Agenda 4. To review improvements in outreach  
website for secondary school students

Agenda 5. To discuss budget allocation plan  
for 2017-2018

# Agenda 1. To organize Outreach Working Group

Chair: Hyo Hyun Sung

Vice Chair: Vicki Ferrini

Secretary: Walter Reynoso Peralta

Attendants: Roxy Wigley, Tim Kearns, Tony Pharaoh,  
Lisa Taylor, David Wyatt. Walter Raynoso, Robin Falconer,  
Tasisei Morishima, Eunmi Chang, Vicki Ferrini,  
Hyo Hyun Sung. Shin Tani .

# Agenda 2. To draft Terms of Reference and Rules of reference for GEBCO Outreach Working Group a

## 1. **Terms of Reference**

1.1 The Working Group reports to the Joint IOC-IHO GEBCO Guiding Committee (GGC) as its designated authority for all outreach activities relevant to the goals of GEBCO as set out in the Guiding Committee Terms of Reference and Rules of Procedure.

1.2 The Working Group shall:

1.2.1 Define GEBCO Project's unique role in extension, outreach, and education based on the purpose of GEBCO Project.

1.2.2 Promote multi-stakeholder registration and participation in the GEBCO Projects, regional capacity building workshops, and relevant Expert Group Meetings (EGM) and side events for the bathymetric data creation and application for all in all fields.

1.2.3 Provide and facilitate multi-stakeholder inputs into the GEBCO Projects and meetings. Develop programmes for EGM and other related events.

1.2.4 Identify opportunities for GEBCO products to better connect with multi-users through extension, outreach and education.

1.2.5 Explore the communication paths between GEBCO Projects and its constituents to improve channels and enhance processes.

1.2.6 Review outreach activities and funding support for programs involved in extension, outreach, and education.

# Agenda 2. To draft Terms of Reference for GEBCO Outreach Working Group

## 2. Rules of Procedure

2.1 Membership of the Working Group is covered by the following rules:

2.1.1 The Working Group shall normally consist of about 10 members endorsed by the Joint IOC/IHO GEBCO Guiding Committee (GGC). They shall comprise representatives of IHO Member States (MS), Expert Contributors (EC) and observers from accredited NGOs. The IHO Secretariat may also be represented.

2.1.2 EC membership is open to entities and organizations that can provide relevant and constructive contribution to the work of the Working Group. ECs shall seek approval of their membership to the work of the Working Group.

2.1.3 Members of the Working Group are experts acting exclusively for the benefit of the Joint IHO-IOC GEBCO Project.

2.1.4 The Chair and the Vice-Chair of the Working Group are designated by the GGC for a five-year period but not exceeding their current membership of the Group. The Chair will normally be succeeded by the Vice-Chair. The Chair and Vice-Chair may be re-appointed for one additional five-year period. If a Secretary is required, he/she should normally be drawn from a member of the Working Group.

2.2 The Chair or, in his/her absence, the Vice-Chair shall conduct the business of the Working Group. Meetings will usually be held every year, ideally before the GGC meeting. In the intervening period the Working Group shall conduct its business by correspondence (preferably electronic mail).

# Agenda 2. To draft Terms of Reference for GEBCO Outreach Working Group

## 2. Rules of Procedure (continued)

2.3 Individuals who can provide a relevant and constructive contribution to the work of the Working Group may attend meetings as Scientific Advisors with observer status, at the discretion of the Chair or Vice-Chair.

2.4 Entities and organizations that can provide a relevant and constructive contribution to the work of the Working Group may be represented at meetings with observer status.

2.5 The Working Group should work primarily by written correspondence and teleconferences.

2.6 Members are expected to attend every meeting of the Working Group.

2.7 The quorum to hold a meeting shall be not less than 50% of the Working Group Members. Decisions should be made by consensus. If consensus cannot be reached, decisions shall be taken by simple majority vote. Only members present may cast a vote. The Chair shall have the casting vote if there is a tie. Dissenting opinions, if any, should be reflected in the Working Group report.

2.8 Recommendations of the Working Group shall be submitted to the GGC for consideration and decision.

2.9 The Working Group should liaise with other IHO bodies, international organizations, end users and industry to ensure the relevance and currency of its work.

2.10 The Working Group should report in accordance with its Work Plan to the Chair of the GGC.

# Agenda 3. list items : who, what, when

## **LIST OF ACTIONS** – Updated 14 October 2016 summarized by Wyatt

Agenda Item	Subject	Status/Date	Comments	Action
1	Outreach	GEBCO 2017	Add Outreach WG as a subordinate body under GGC on website	IHB
3	Outreach	GEBCO 2017	Develop independent questionnaires to reveal perception of GEBCO	Eunmi Chang
3	Outreach	GEBCO 2017	Create mechanisms to gather useful information and allow easy interpretation	Walter Reynoso-Peralta and Outreach WG members
3	Outreach	GEBCO 2017~2019	Create prototypes of different products and activities for the different target audiences	Vicki Ferrini and Outreach WG members
4	Outreach	GEBCO 2018	Develop Outreach website as a subpage of the GEBCO website	Eunmi Chang, Walter Reynoso-Peralta, Vicki Ferrini and Hyo HyunSung
4	Outreach	GEBCO 2017	Provide comments and feedback to improve website	Hyo Hyun Sung and Outreach WG members
2	Outreach	GGC <sub>34</sub>	Finalize ToRs and submit to GGC to endorsement	Chair
	Action List	GEBCO 2017	Keep IHB and the Chairs and vice-Chairs informed of progress with allocated actions	All

# Agenda 3. list items : who, what, when

Purposes	Target	Actions	In charge/ expecting (recommend)	Target date
Secure funding	<ul style="list-style-type: none"> <li>Bill and Melinda Gates Foundation</li> <li>IHO</li> <li>NF, etc.</li> <li>UNESCO</li> </ul>	1.1 Contact and write a proposal to Nippon Foundation and/or GEBCO	1.1 Robin Falconer/	1.1 December 2017
		1.2 Contact and write a proposal to UNESCO	1.2 Robin Falconer	1.2 December 2018
		1.3 Make a presentation material reflecting 100 reasons to use bathymetry	1.3 Roxy and GEBCO students	1.3 December 2017
Increasing GEBCO product usage	<ul style="list-style-type: none"> <li>Marine science community (Research institutes, academic organizations)</li> <li>Industry</li> <li>International and national governmental organizations</li> </ul>	2.1 list up the conferences related to oceanography and hydrography and narrow down the targeted conference	2.1 Tim Kearn	2.1 4 <sup>th</sup> 2017
		2.2 list up user S/W H/W conferences and narrow down the targeted conference	2.2 Tim	2.2 3 <sup>rd</sup> 2017



# Agenda 3. list items : who, what, when

Purposes	Target	Actions	In charge/ expecting (recommend)	Target date
Increasing GEBCO data input	<ul style="list-style-type: none"> <li>- Regional hydrographic commission</li> <li>- Crowd-sourced data management</li> <li>- Practical at-sea surveying experts</li> <li>- Governmental organizations</li> <li>- Marine research institutes</li> </ul>	<p>3.1 Make a standardized presentation to give a base to a specific conference and make a Presentation material to introduce GEBCO</p> <p>3.2 Outreach menu in the GEBCO main page (subgroups: students, funders, data providers and users..)</p>	<p>3.1 Eunmi / Hyo</p> <p>3.2 Pauline / Walter to make contents / subpage Eunmi</p>	<p>3.1 Dec 2017</p> <p>3.2 August 2017</p>
Make GEBCO data approachable to audience (to maintain global standard and share creative outputs)	<ul style="list-style-type: none"> <li>- Data processing experts</li> <li>- Database managers</li> <li>- Software developers</li> <li>- Ocean Scientists</li> <li>- Geophysicists</li> <li>- Geographers</li> <li>- Geologists</li> </ul>	<p>4.1 Open Data Platform for online collaboration</p> <p>4.2 Open Data Platform for sharing data</p> <p>4.3 Make Innovative industry (VR and PlayStation and game industry) involvement</p>	<p>4.1 Vicki or Seabed 2030 personnel or Tim</p> <p>4.2 Vicki or Seabed 2030 personnel or Tim</p> <p>4.3 Tim</p>	<p>4.1 2020</p> <p>4.2 2020</p> <p>4.3 2018</p>

## Agenda 3. Action list : who what when

[illegible]

# Agenda 4. To update Subpage for secondary school students

**GEBCO**  
for High School and College Student

Reading Playing Printing Designing link

**To visitor..**

The moon has been mapped from pole to pole. We have launched many artificial satellites to observe the earth itself, But we have not finished mapping it in detail. Two thirds of the earth is covered by water, i.e. oceans and seas. We still have a lot to learn about these regions and about the shape of the seafloor. This page aims to promote to student the work of the General Bathymetric Chart of the Oceans (GEBCO) in mapping the sea floor and in naming features on the sea floor.

This page aims to promote to students the work of the General Bathymetric Chart of the Oceans (GEBCO) in mapping the sea floor and in naming features on the sea floor. The main menu is composed of activities for students such as reading, playing, printing and designing. We hope this page will be kept updated and be full of interesting and useful material.

Please leave any comments or idea to [infokhoa@korea.kr](mailto:infokhoa@korea.kr) [hhsung@ewha.ac.kr](mailto:hhsung@ewha.ac.kr) [emchang21@gmail.com](mailto:emchang21@gmail.com)

Outreach Groups

**Job Related Ocean Mapping**

Hydrographic surveyors, also known as hydrographers, specialize in precise positioning, data acquisition and processing in marine environments. The role involves measuring and mapping the world's underwater surfaces and studying the morphology (construction) of the seabed, showing the depth, shape and contours. The information is used in: the production of charts and related information for ... [More](#)

**GEBCO World Map**

The GEBCO community consists of an international group of experts in seafloor mapping who work on the development of a range of bathymetric data sets and data products with the aim of providing the most authoritative publicly-available bathymetry for the world's oceans. It operates under the joint auspices of the Intergovernmental Oceanographic Commission (IOC) of UNESCO and the International Hydrographic Organization (IHO). [More](#)

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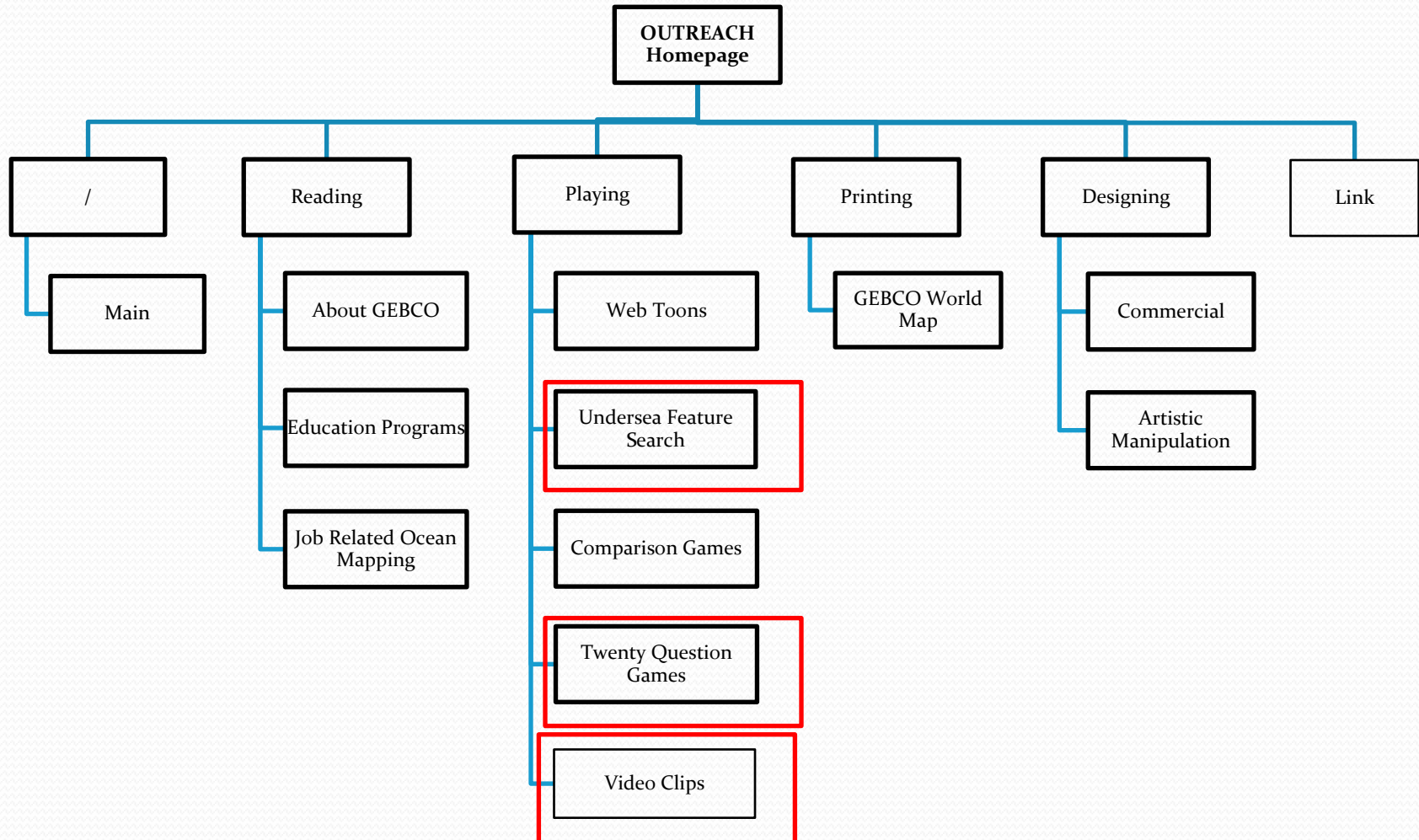
## Changes

1. Design
2. Element of Main page

Move to Printing and  
GEBCO World Map

Reading and Job Related Ocean Mapping

# Agenda 4. To update Subpage for secondary school students



# Agenda 4. To update Subpage for secondary school students

## Overview of Seamount

### Twenty Question Game

### Game ending message

**Congratulation!!. You succeeded the mission.**

**Right Answer : Seamount**

Processed Step : Step 10  
Spent Time : 87 second

Do you try it again?

**Show the log of played one**

retry

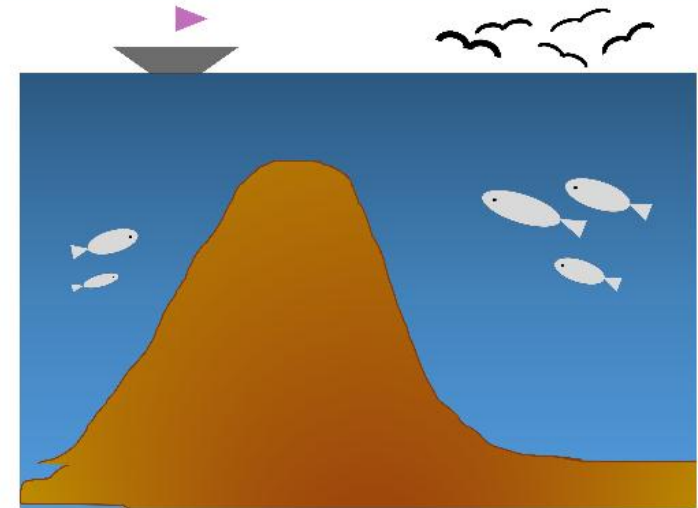
**After finishing  
one terms  
Definition and  
simple diagram  
Is shown with  
examples**

Term Seamount

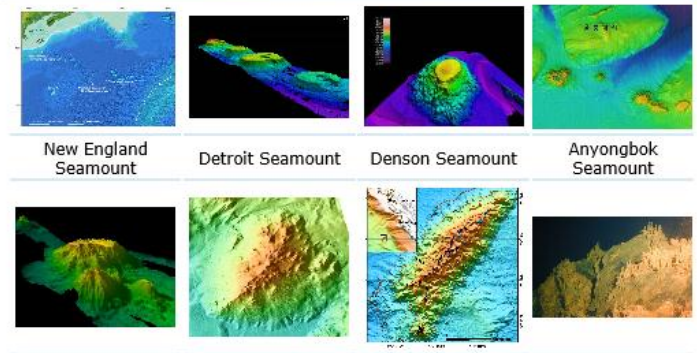
Definition

- A discrete (or group of) large isolated elevation(s), greater than 1,000m in relief above the sea floor, characteristically of conical form.(IHO Dictionary)
- A seamount is a mountain rising from the ocean seafloor that does not reach to the water's surface (sea level), and thus is not an island. Seamounts are typically formed from extinct volcanoes that rise abruptly and are usually found rising from the seafloor to 1,000–4,000 metres (3,300–13,100 ft) in height.(Wikipedia)

Geographical  
Feature  
Image



Example



The person who spent least time become a winner.

# Agenda 4. To update Subpage for secondary school students

Home :: Playing :: Undersea Feature Search

**Playing**

Web Toons

**Undersea Feature Search**

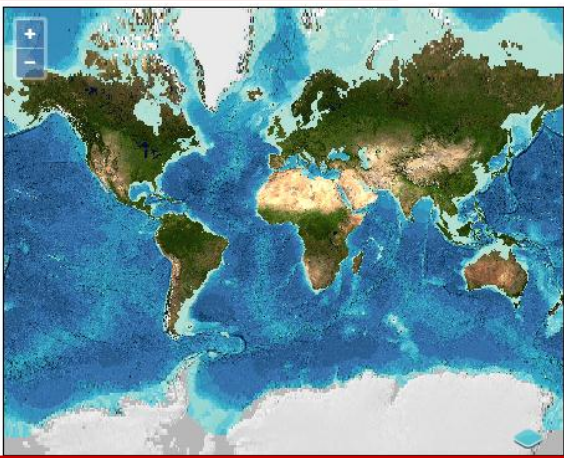
Comparison Games

Twenty Question Game

Undersea Feature Video

**Undersea Feature Search**

Feature Name   **Enter any name**



**Search List**

**List of the searched name**

**Overview of Undersea Feature**

Name
Type
Status
Geometry
Secondary Geometry
Proposer
Proposal Year
Discoverer
Discovery Year
Meeting
History
Min Depth
Max Depth
Total Relief
Dimension

**Location of Undersea Feature name**

Search for undersea feature name of 3950 in B-8 documents with names or generic terms

**해저지형 등록 정보**




# Agenda 4. To update Subpage for secondary school students

**Playing**

[Web Toons](#)  
[Undersea Feature Search](#)  
[Comparison Games](#)  
[Twenty Question Game](#)  
**[Undersea Feature Video](#)**

**Undersea Feature Video**

제주 금덕이초 부근 해저분화구다큐 45일간의 기록! 40 soccer fields.

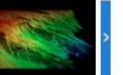






estimation of lava flow on the south-west slope  
around the sea area assumed as sea floor crater

해저분화구 추정 지형의 남서쪽 사면에 용암통로가 분포하는 것으로 추정

<b>Title</b>	An Exciting Journey to the Island Jeju : Documentary Records of 45 Days
<b>Video URL</b>	<a href="https://www.youtube.com/watch?v=ce_8a7VBtsQ">https://www.youtube.com/watch?v=ce_8a7VBtsQ</a>
<b>Video Info</b>	<ul style="list-style-type: none"><li>• Copyrights : Korea Hydrographic and Oceanographic Agency</li><li>• Running Time : 7' 58"</li><li>• Video ID : ce_8a7VBtsQ</li><li>• Dimensions : 854 x 480</li><li>• Resolution : 640 x 360</li><li>• Stream Type : https</li><li>• CPN : a_mAMrt3riCkqkYL</li><li>• Mime Type : video/mp4;codecs=avc1.4001E,mp4a.40.2</li></ul>
<b>Content</b>	<ul style="list-style-type: none"><li>• meeting for detailed oceanographic survey for the sea area assumed to be s seabed crater(about 1min)</li><li>• discovery of sea area assumed as seabed crater near 41km from Seogwipo northeast(about 2min)</li><li>• investigation of the strata of the sea area assumed as floor crater(about 3min 25sec)</li><li>• detailed cubic analysis of the strata by the cross exploration(about 3min 50sec)</li><li>• analysis of samples of bottom material from 6 points centering on this area(about 4min 30sec)</li><li>• see gravity observation on this area to investigate gravity anomaly (about 5min 10sec)</li><li>• survey of sea water properties to investigate water temperature, salinity, density according to the seasons in this area(about 5min 30sec)</li><li>• conducting diving inspection for vegetation and inhabiting fish species around this area and Geumdeokcho(about 6min 40sec)</li></ul>

**Other Video**



An Exciting Journe... The deepest Ocea... Birth of an Atoll Mapping The Ocea... Research at UoM : ...

AVI file will be playing

About the useful contents on the video  
Metadata for the file: time, author, main terms  
2with time point (example 17 min: the process

Video list (typical image) with five and more

# Agenda 5. To discuss budget allocation plan for 2017-2018

Task	Work item	Priority H-high M-medium L-low	Milestones	Start Date	End Date	Status P-planned O-ongoing C-completed	Contact Person(s) * indicates leader	Related Pubs/Standard	Funding Bid (€)	GGC Decision
G1	Contribute to outreach and education about ocean mapping (GEBCO World Map printing)	H		Continuous		O	Chair Outreach WG		7,000	
G2	Development of outreach and educational materials (Jigsaw puzzle for World Map and presentation files)	M		2015	2018	P	All members of GEBCO GC through the Chair Outreach WG		2,000	
G3	Development of webpage (for secondary school student etc.)	M		2015	2018	O	All members of GEBCO GC through the Chair Outreach WG		11,000	
I1	Develop short course and supporting material on compiling digital bathymetric models	H				O	All members of GEBCO GC through the Chair Outreach WG		?	





**Thank you**