



## ANNUAL REPORT

# Nippon Foundation / GEBCO Training Program



Intergovernmental  
Oceanographic  
Commission



**Dr Rochelle Wigley**

Nippon Foundation / GEBCO projects, CCOM-UNH

**Presented by Dr Karolina ZWOLAK**

Polish Naval Academy





Classroom



Nippon Foundation /  
GEBCO students office





# YEAR 14 2017/2018

- Another successful year with all completing course work and graduating from UNH with Graduate Certificate in Ocean Mapping
- Visited National Center for Environmental Information NCEI, Boulder, CO - 8- 9 January 2018
- VAdm Shin Tani visited 26-29 March 2018
- The group attended the 4th NOAA/JHC Chart Adequacy Workshop from 23 - 25 July 2018, the International Cartographic Association (ICA) Marine Charting Working Group (26 July) and the NOAA Open House on Nautical Cartography (27 July) at NOAA's Science Center.

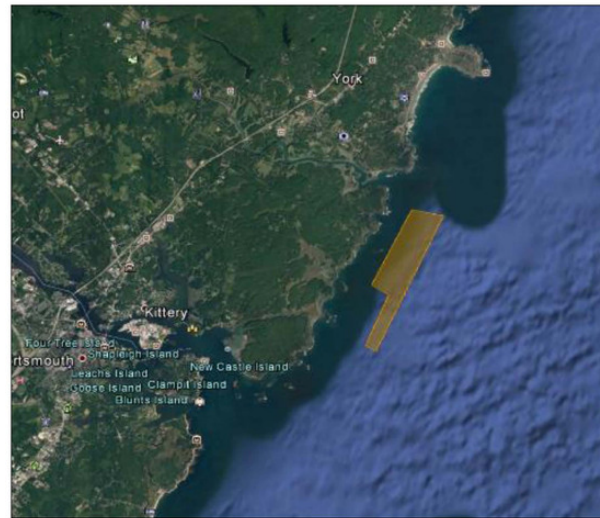
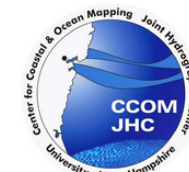






# CCOM-JHC Summer Hydro 2018

Faculty/Vessel Personnel: A. Armstrong (USA), S. Dijkstra (The Netherlands), Capt. E. Terry (USA), Capt. M. Rowell (USA), D. Tauriello (USA)  
Survey Team: A. Rasolomaharavo (Madagascar), A. Bohan (Ireland), C. Cortina (Mexico), H. Ogawa (Japan),  
L. Davis (USA), H. Owen (USA), A. Fitzcarrald (Peru), L. Goba (Latvia)



Survey Information	
Survey Area:	Maine, in the vicinity of York harbor
Vessel	R/V Gulf Surveyor
Vertical Reference:	MLLW referenced to Fort Point Tide Station, NH
Horizontal Reference:	WGS84 UTM 19 North
Scale:	1:26900.99
Data Acquisition Systems:	R2Sonics Sonic 2024 Applanix POSMV 320 V5 Hypack Survey QPS Qinsy

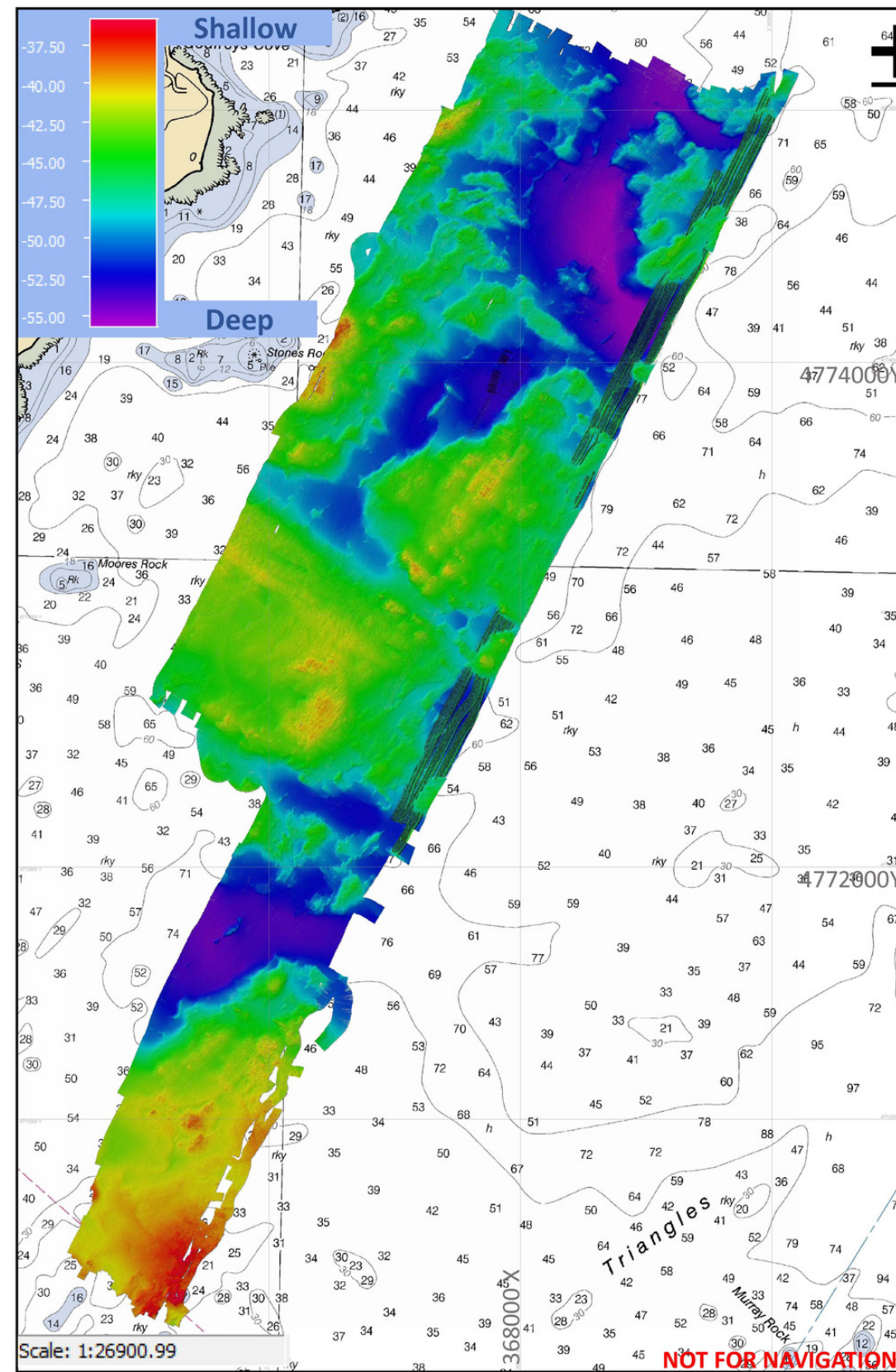
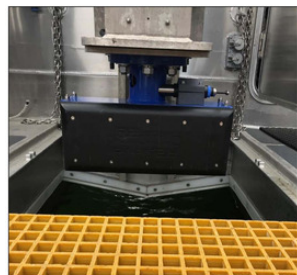


Figure: Bathymetric surface processed in Qimera and exported as Geotiff. Background NOAA chart in feet. Inset map shows the survey area. Image created in Hypack

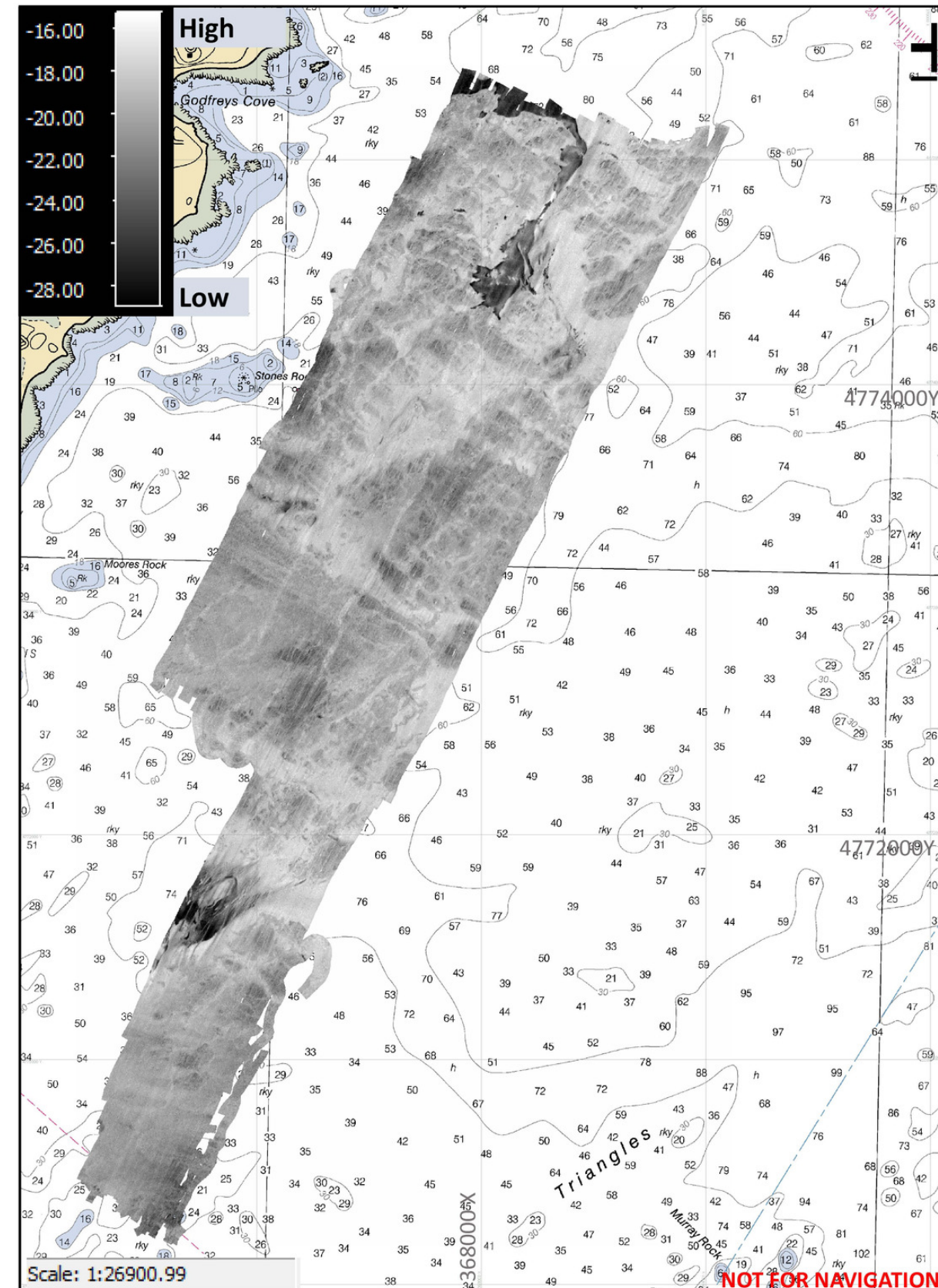


Figure: Backscatter mosaic created in FMGT and exported as a Geotiff. NOAA Background chart with depth in feet. Image created in Hypack.



R/V Gulf Surveyor



Survey Team





# YEAR 14 LAB VISITS AFTER ACADEMIC YEAR



**Aileen BOHAN:**

Nautilus cruise / XPRIZE

**Haruka OGAWA \*** :

NIWA-Seabed 2030 (Geoffroy Lamarche)  
/ GEBCO Meeting

\* see alumni poster

**Andry RASOLOMAHARAVO:**

CCOM (S. & J. Dijkstra)

**Cecilia CORTINA Guzman:**

NOAA Office Coast Survey /  
Italian Hydrographic Office  
(RAdm Luigi SINAPI)

**Liva GOBA \*** :

Nautilus cruise / GEBCO MEETING

**Andres FITZCARRALD Barba:**

XPRIZE (Kongsberg Maritime) /  
Italian Hydrographic Office  
(RAdm Luigi SINAPI)



# Current Status: Year 13 & 14 funds

	Funds from Nippon Foundation	Incoming Totals	Spent to Date	Remaining at UNH	
Nippon Foundation / GEBCO training program 2016/2017	\$ 625,869				
Nippon Foundation / GEBCO training program 2017/2018	\$ 620,871				
<b>Sub-total</b>		<b>\$ 1,246,740</b>	<b>\$ 1,211,921</b>	<b>\$ 34,819</b>	<b>1.</b>
Nippon Foundation / GEBCO Ambassador 2015/2016	\$ 40,500			\$ 32,369	
Nippon Foundation / GEBCO Ambassador 2016/2017	\$ 40,500			\$ 40,500	
Nippon Foundation / GEBCO Ambassador 2017/2018	\$ 44,500			\$ 44,500	
<b>Sub-total</b>		<b>\$ 125,500</b>	<b>\$ 8,131</b>	<b>\$ 117,369</b>	<b>2.</b>

## NOTES:

1. Lab visits for Year 14 not yet completed and so this is not a final a balanace
2. Decision was made to hold on spending on ambassador fund until Seabed 2030 was established





# Year 15: Current Students



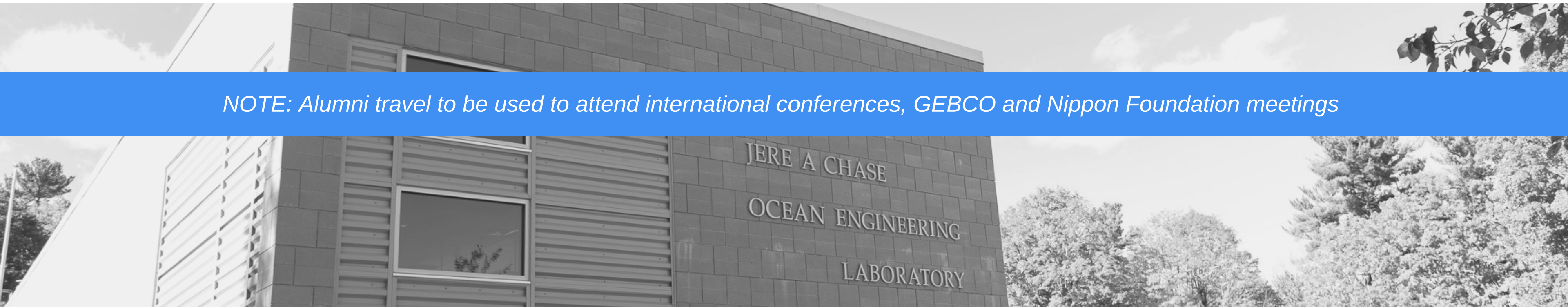
# Nippon Foundation Funds

- **Initial proposal for one year (Year 15) submitted 15 January**
- **Request for two year (Year 15 & 16) submitted 24 January**

Nippon Foundation / GEBCO training program 2018/2019	\$ 649,705
Nippon Foundation / GEBCO training program 2019/2020	\$ 675,215
Alumni travel for Capacity-building and Networking 2018/2019	\$ 22,000
Alumni travel for Capacity-building and Networking 2019/2020	\$ 22,000
TOTAL:	\$ 1,368,920

- **Funds to IHO on 30 March 2018 and at UNH on 29 June 2018**

*NOTE: Alumni travel to be used to attend international conferences, GEBCO and Nippon Foundation meetings*

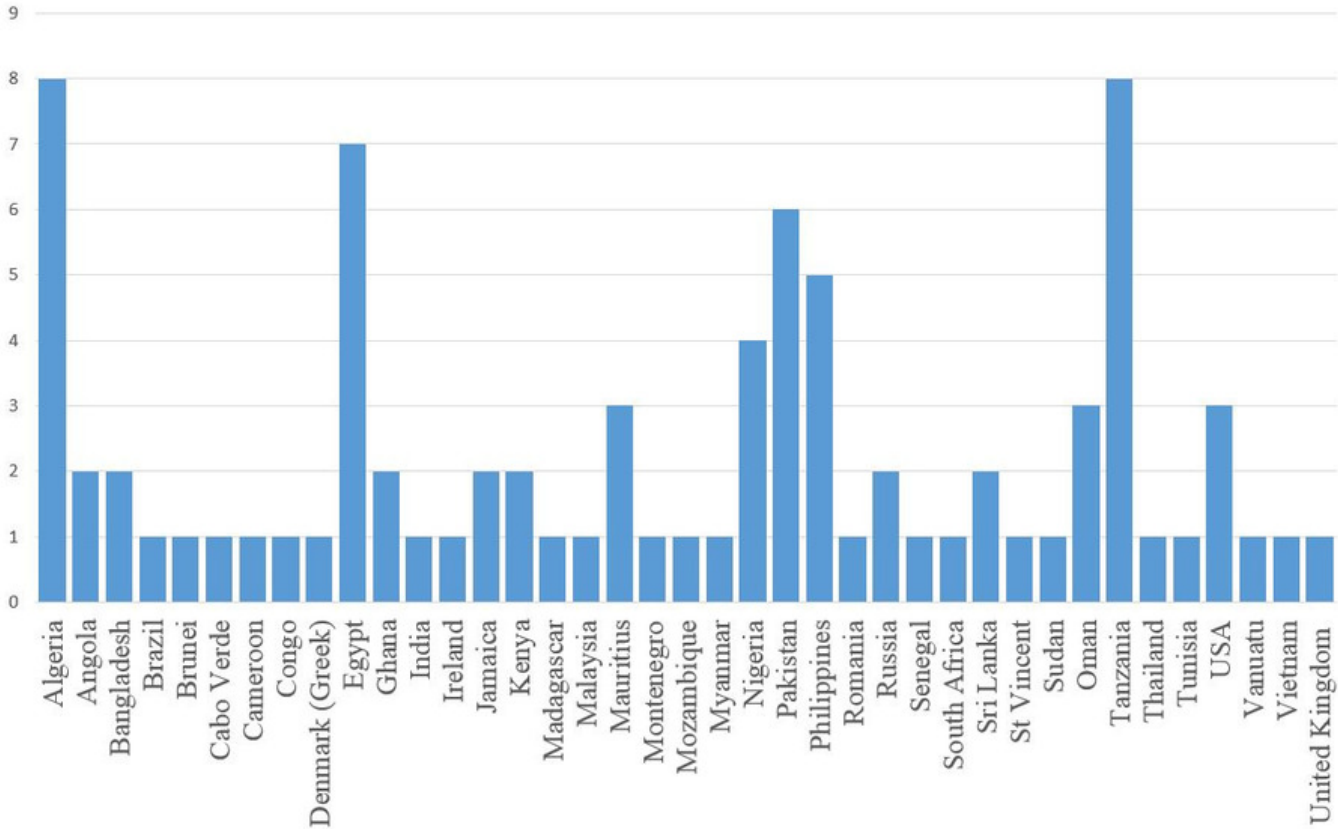




# Selection Process

- Opened 12 February (with permission) - Closed 31 March 2018
- 84 Applicants from 39 Countries
- Assess as per M1-M7 (alumni helped asses mulitple candidate from home country)
- Left 18 candidates for interviews and shortlist of 15 after telephone / Skype interviews
- After Skype meeting 18 May: Mr Unno selected 6 - one withdrew - offered to another (also declined) - so final candidate selected 6 June 2018
- Year 15 orientation started Monday 20 August 2018

M1	Have a four year degree in an applicable field
M2	Sufficient capability in English
M3	Desire to build capacity in their home country
M4	Have a strong probability of returning home and working in Ocean Mapping
M5	Have an involvement in and a passion for the ocean
M6	Have strong written support from home organization
M7	Multiple applicants from one country







19 new graduate students



# YEAR 15

# 2018 / 2019

<p><b>Keshav SAUBA</b> Mauritius Ministry of Defence and Rodrigues Department for Continental Shelf, Maritime Zones Admin &amp; Exploration <i>(Masters in Resource Engineering)</i></p>	<p><b>Victor CHILAMBA</b> Angola Angolan Ministry of Fisheries and Sea <i>(Masters in International Fisheries Management)</i></p>	<p><b>Victoria OBURA</b> Kenya Hydrographic office of Ministry of Lands and Physical Planning <i>(Land Surveyor)</i></p>	<p><b>Mekayla DALE</b> Northern Ireland Contractor for INFOMAR <i>(Hydrographic Surveyor)</i></p>	<p><b>M. Rafeq PAIMIN</b> Malaysia National Hydrographic Centre Royal Malaysian Navy <i>(Nautical Science)</i></p>	<p><b>Kemron BEACHE</b> St. Vincent and the Grenadines Coast Guard / Maritime Administration <i>(Masters Mechanical Engineering)</i></p>
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# Year 14 & 15 course material

Designed to meet GEBCO, CCOM & Category A requirements

**Fall Semester**  
(August-December)



- Integrated Seabed Mapping Systems (OM I)
- Applied Tools for Ocean Mapping
- Math for Mapping

**J-term**



- Visit NCEI in Boulder, Co.
- Physical Oceanography for Hydrographers
- Software training (QinSy/CARIS/Hypack)

**Spring Semester**  
(January-May)



- Fundamentals of Ocean Mapping II
- Bathymetric Spatial Analysis
- Geodesy & Positioning for Ocean Mapping
- Seamanship and Marine Weather
- Geological Oceanography for Hydrographers

**Summer**  
(June-August)



- Software training (QinSy/CARIS/Hypack)
- Hydrographic Field Course

**Lab Visit & Cruise**

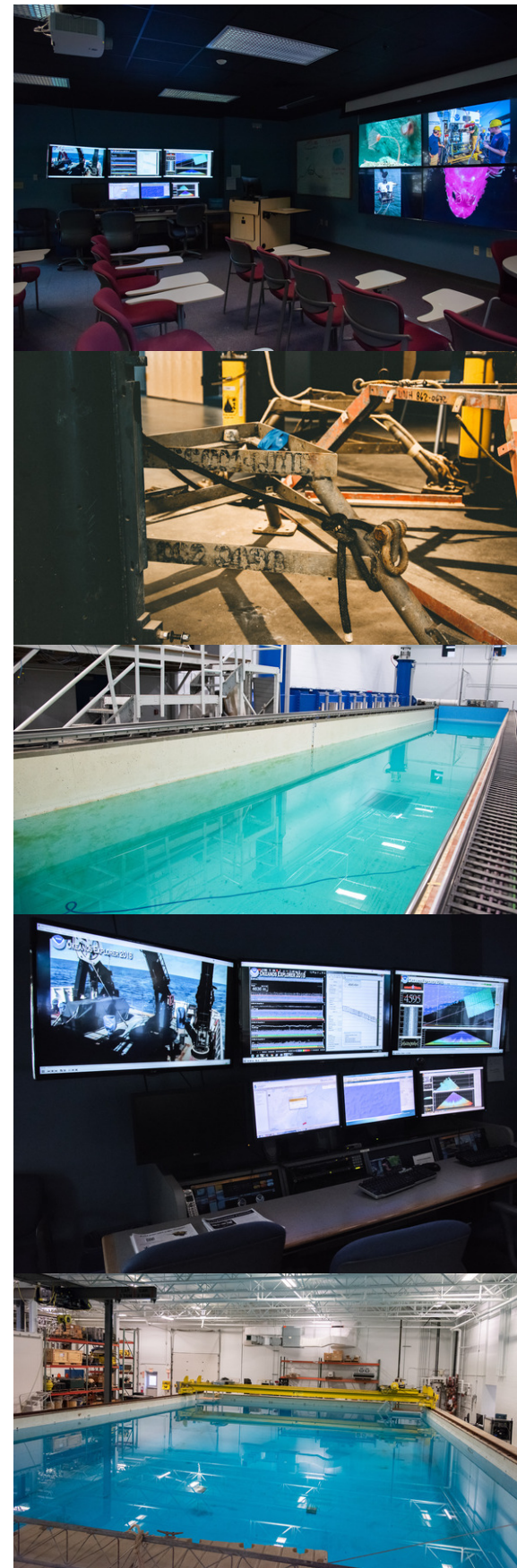


- Working visit to a research organization and / or a cruise selected by student and their home organization in a field of mutual interest.

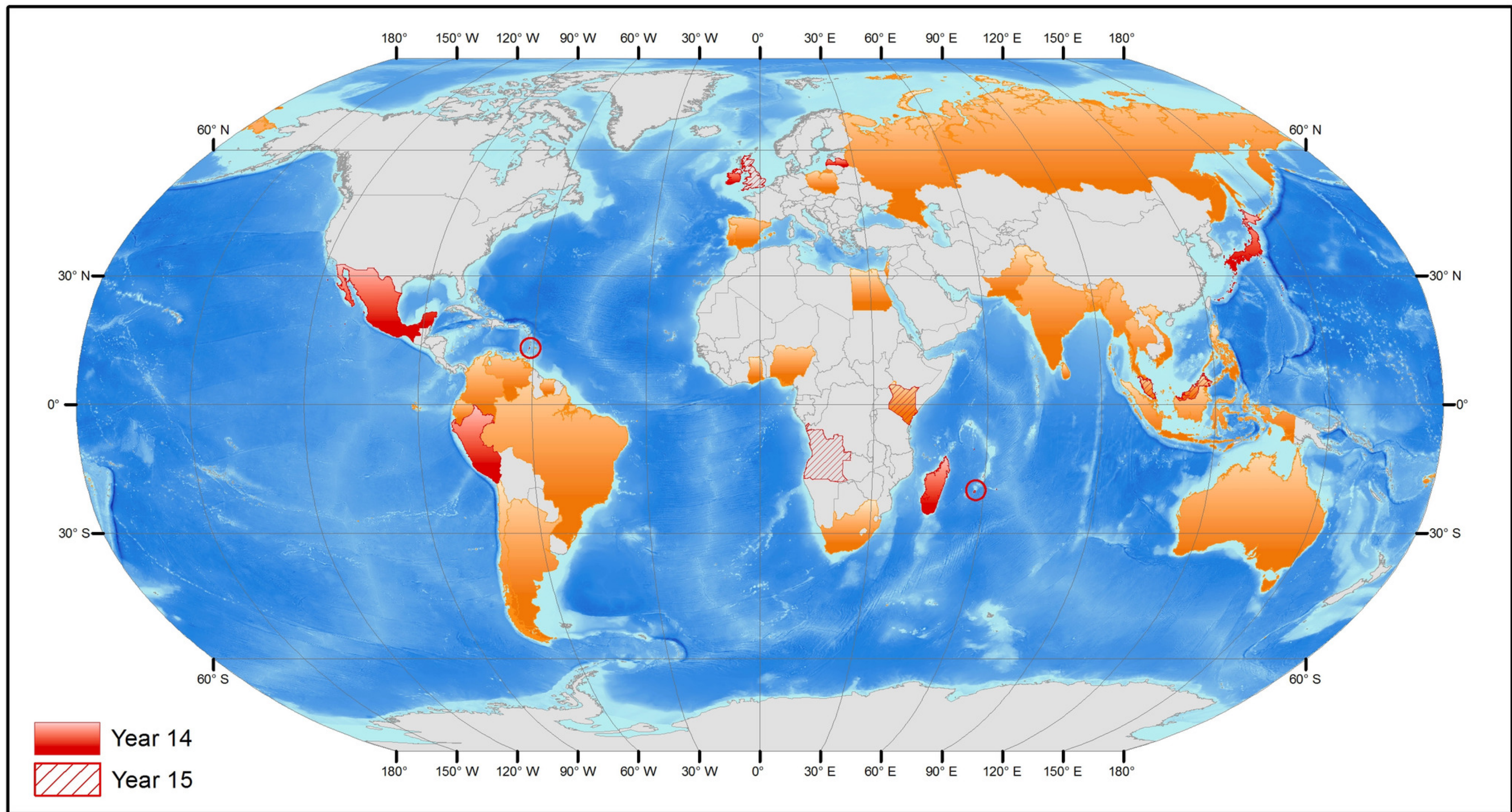
Map Once



Use Many Times







**90 Students (including current class) from 40 countries**



THANK YOU

