

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF FOREIGN AFFAIRS
MANILA

No. 10 -1423

The Department of Foreign Affairs of the Republic of the Philippines presents its compliments to the Embassy of the United States of America, and has the honor to refer to the Embassy's Note No. 1896 dated 23 December 2009 and letter dated 16 February 2010, requesting consent to conduct marine scientific research (MSR) in areas under the jurisdiction of the Republic of the Philippines aboard R/V Roger Revelle from 11 June through 26 November 2010.

The Government of the Republic of the Philippines grants consent to the MSR project in accordance with Article 246 of the 1982 UN Convention on the Law of the Sea (UNCLOS) and subject to strict adherence to the terms and conditions set forth in the attached *Grant of Consent*.

The Department of Foreign Affairs of the Republic of the Philippines avails itself of this opportunity to renew to the Embassy of the United States of America the assurances of its highest consideration.

Pasay City, 07 June 2010



**CONSENT TO CONDUCT MARINE SCIENTIFIC RESEARCH IN AREAS
UNDER THE NATIONAL JURISDICTION OF THE
REPUBLIC OF THE PHILIPPINES**

Cruise Name and Number: **Impact of Typhoons on the Pacific:
Glider Operations**

1. Consent is hereby granted to the marine scientific research (MSR) project ***Impact of Typhoons on the Pacific: Glider Operations*** to be conducted by the **Scripps Institution of Oceanography** aboard **R/V ROGER REVELLE** within maritime areas under the jurisdiction of the Republic of the Philippines from 11 June through 26 November 2010.
2. **R/V ROGER REVELLE** does not enjoy sovereign immunity status. All personnel involved in the MSR project are not covered by, or otherwise enjoy, the privileges and immunities provided for under the 1998 Republic of the Philippines – United States of America Visiting Forces Agreement.
3. The MSR project shall be conducted strictly in accordance with the information submitted by the Embassy of the United States of America through Note No. 1896 dated 23 December 2010 (**ANNEX A**) as amended through the letter dated 16 February 2010 (**ANNEX B**).
4. The MSR project shall be undertaken subject to strict adherence and compliance to the following conditions:
 - 4.1 The MSR project shall be subject to applicable laws, rules, regulations, and requirements of concerned agencies and instrumentalities of the Government of the Republic of the Philippines, including but not limited to: Provisions of the Philippine Merchant Marine Rules and Regulations (PMMRR), PD 984-Pollution Control Law, PD 1152-Philippine Environmental Code, Philippine Coast Guard Memorandum Circular 02-77: Rules and Regulations for Prevention, Containment, Abatement and Control of Marine Pollution of the Sea by Oil; Provisions of PD 1866 pertaining to illegal/unlawful transportation, possession and disposition of firearms, ammunition and explosives; RA 6969 regarding the control of toxic substances and wastes;
 - 4.2 The Scripps Institution of Oceanography shall guarantee the right of the following designated scientists and official

representatives from the Philippines to participate in all aspects of the MSR project:

Marine Science Institute

1. Dr. Cesar VILLANOY
2. Dr. Laura DAVID

National Mapping and Resource Information Authority

3. Ensign Glenn G. JANDAYAN
janglez914@yahoo.com.ph
4. Ensign Reynante M. LABIANO
bombrey1@yahoo.com

The said personnel shall be allowed to actively participate in the conduct of the MSR project and shall be given unrestricted access to all areas in the vessel as well as the use of available equipment, as necessary.

The Scripps Institution of Oceanography shall designate the most convenient embarkation and disembarkation points for the above personnel. Their participation shall not oblige the Government of the Republic of the Philippines to contribute to the costs of the subject MSR project;

- 4.3 The research vessel, vehicles, platforms, devices and installations used in the conduct of the MSR project shall be subject to the close monitoring by the Philippine Navy (PN) and/or Philippine Coast Guard (PCG) upon entry into the Exclusive Economic Zone (EEZ) of the Republic of the Philippines.

The master of the vessel shall notify the PN and PCG of the vessel's location prior to entering the EEZ and is required to regularly provide Periodic Position Reports (POSREP) and Situation Reports (SITREP) as the MSR project progresses until the vessel's actual departure from the EEZ of the Philippines. Contact details are as follows:

- Naval Operations Center
Philippine Navy
Telefax: +632 525-4987
- Philippine Coast Guard Action Center
Telefax: +632 527-3877
cgac@coastguard.gov.ph

- 4.4 The master of the vessel shall provide the Philippine Atmospheric, Geophysical and Astronomical Services Administration of the Department of Science and Technology (PAGASA-DOST) real-time observations of mean sea level pressure, wind direction and speed, rainfall, air temperature, humidity, significant wave height, sea, and swell at standard hours 0000, 0600, 1200 and 1800 UTC upon entry and stay within the EEZ of the Philippines. Data and information shall be transmitted to the Weather Forecasting Manila Office of PAGASA-DOST at any of the following:
- +632 9264258; +632 9272877
 - +632 9271541; +632 9204070
 - +632 9271335; +632 9263167
 - +632 9282031; +632 9263151
 - +632 4342618
 - fredolina_baldonado@yahoo.com
 - r_sawi@hotmail.com
 - Radio frequency: 7995.5 SSB
- 4.5 Appropriate navigation warning devices that comply with international navigational safety standards shall be installed on all deployed scientific instruments to warn transiting vessels in the area;
- 4.6 No mapping survey activities shall be undertaken within Philippine maritime jurisdictions.
- 4.7 Drilling, the use of explosives or the introduction of harmful substances into the marine environment is prohibited;
- 4.8 Exploitation, production, culture or gathering of fish, fingerling or any species of fish or fishery/aquatic products or processing of the same or engaging in any fishery activity within Philippine maritime jurisdictions is prohibited;
- 4.9 The Chief scientist of the MSR project shall submit through diplomatic channels to the Ocean Concerns Office of the Department of Foreign Affairs (DFA-OCO) within thirty (30) days after the conclusion of the cruise the following:
- 4.9.1 Two (2) copies of the **report on the preliminary results** of the MSR project;
 - 4.9.2 The vessel's cruise track, the gliders' survey tracks and samples sites chart;

- 4.9.3 A list of all scientific personnel and vessel crew involved in the particular cruise, with their respective positions and affiliations; and,
- 4.9.4 All data gathered in appropriate format;

- 4.10 Two (2) copies of a **report on the final results** of the MSR project and two (2) copies of all other publications arising out of the MSR project shall be submitted through diplomatic channels to DFA-OCO within twelve (12) months after the conclusion of the MSR project;

- 4.11 The Republic of the Philippines shall be furnished with, and provided unrestricted access to all original data derived from the MSR project as well as copies of data and/or samples which may be divided without detriment to their scientific value.

All data derived from the MSR project shall be provided in appropriate format to the designated representatives upon request.

Assistance in the assessment and/or interpretation of such data, samples and research results shall be provided by the Scripps Institution of Oceanography upon request;

- 4.12 Unless otherwise agreed, all installations, equipment and devices used in the course of the MSR project shall be removed once the MSR project is completed; and,


- 4.13 The Scripps Institution of Oceanography shall make the MSR results internationally available through appropriate channels as soon as practicable.

- 5. DFA-OCO shall be notified of any changes in the MSR project prior to the entry into the EEZ of the Philippines. Failure to notify DFA-OCO of such changes shall be cause for the immediate suspension of the MSR project, except in case of *force majeure* occurring while the MSR project is in progress.

- 6. The Republic of the Philippines reserves the right to order the suspension or cessation of the MSR project. Upon notification of the decision to order suspension or cessation, all research activities subject of such notification shall be terminated.

- 7. Evidence of this consent shall be kept on-board the research vessel.

Ocean Concerns Office
Department of Foreign Affairs
2330 Roxas Boulevard, Pasay City 1300
Republic of the Philippines
Telefax: +632 831-4767


AMB. LEONIDES T. CADAY
Senior Foreign Affairs Adviser &
Officer-in-Charge

Pasay City, 07 June 2010

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AMB. LEONIDES T. CADAY
Senior Foreign Affairs Adviser &
Officer-in-Charge

Pasay City, 07 June 2010



No. 1896

Annex A

The Embassy of the United States of America presents its compliments to the Department of Foreign Affairs of the Republic of the Philippines and requests approval for the R/V Roger Revelle to conduct marine scientific research from 11 June to 13 November 2010.

Scientists on the R/V Roger Revelle, a United States – flagged vessel, seek to study the Impact of Typhoons on the Pacific: Glider Operations. The chief scientist is Dr. Craig Lee of the Applied Physics Laboratory of the University of Washington, and the application of consent is attached.

R/V Roger Revelle, owned by the Office of Naval Research and operated by the Scripps Institution of Oceanography, is 85 meters long with a maximum 5 meters draught and with gross tonnage of 2516. The ship's master is Captain Tom Desjardins with a crew of 22 and no more than 37 scientists on board. International radio call sign

DIPLOMATIC NOTE

OCEAN CONCERNS OFFICE
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DATE: DEC 28 2009
BY: *Shouwa 11/27/09*

is KAOU and the vessel uses Inmarsat-C, 436780010, Telephone, Indian, 011-873-336780030, Alternate, 011-873-336-780020 and email: master@rv-melville.ucsd.edu. Radio, vessels guard standard GMDSS frequencies for calling, distress and dissemination of marine safety information.

The Embassy of the United States of America avails itself of this opportunity to renew to the Department of Foreign Affairs assurances of its highest consideration.

Attachment: Application for Consent.

Embassy of the United States of America,

Manila, December 23, 2009.





Embassy of the United States of America

Manila, Philippines

February 16, 2010

Ambassador Leonides A. Caday
Assistant Secretary
Ocean Concerns Office
Department of Foreign Affairs
12/F DFA Bldg., Roxas Blvd.
Pasay City

Annex B

Dear Ambassador Caday,

This refers to the application for grant of consent under Diplomatic Note No. 1896 dated 23 December 2009, in reference to the marine scientific research Impact of Typhoons on the Pacific: Glider Operations. The following revisions are made:

- The Philippine scientist involved in the project is Drs. Cesar Villanoy and Laura David of the University of the Philippines – Marine Science Institute
- The dates of the research are extended to cover the period 11 June – 26 November 2010
- Possible ports of call are in Manila and Iloilo for the above specified period (and other ports) might be sought for safety and logistical reasons.

Please find attached two copies of the updated application for consent for your review and consideration.

We appreciate your support and look forward to collaborating with your office on future projects.

Sincerely,

Dovas A. Saulys
Environment, Science & Technology,
and Energy Officer

OCEAN CONCERNS OFFICE

RECEIVED

DATE: MAY 23 2010

BY: [Signature]

2010

Application for Consent to Conduct Marine Scientific Research
in Philippines

Date: 18 December 2009
Revised 12/5/10

1. *General Information*

1.1 Project name and/or #:	Impact of Typhoons on the Pacific: Glider Operations
1.2 Undertaking institution:	Scripps Institution of Oceanography
Name:	Elizabeth Brenner/Rose Dufour
Address:	University of California 9602 La Jolla Shores Drive, La Jolla, CA 92037 858-534-2841 shipsked@ucsd.edu
Name of Director:	Dr. Tony Haymet
1.3 Government Agency Responsible for Supervising the Project:	
Name	Dr. Terri Paluszkiwicz
Address	U.S. Office of Naval Research 875 North Randolph Street, Suit 1425 Arlington, VA 22203-1995
1.4 Scientist in charge of the project:	
Name:	Dr. Craig M. Lee
Address:	Applied Physics Laboratory University of Washington 1013 NE 40th St Seattle, WA 98105-6698 USA
Telephone:	+1-206-685-7656
Telex:	
Telefax:	+1-206-543-6785
E-mail Address:	craig@apl.washington.edu
1.5 Scientist(s) from Philippines involved in the planning of the project:	
None yet identified, but have long-term collaboration with:	
Name(s): Not available	Prof. Cesar Villanoy (Philippines)
Address:	University of the Philippines, Dilman c.villanoy@gmail.com
	Prof. Laura David (Philippines)
	University of the Philippines, Dilman ldavid@upmsi.ph

2. Description of Project (Attach additional pages as necessary)

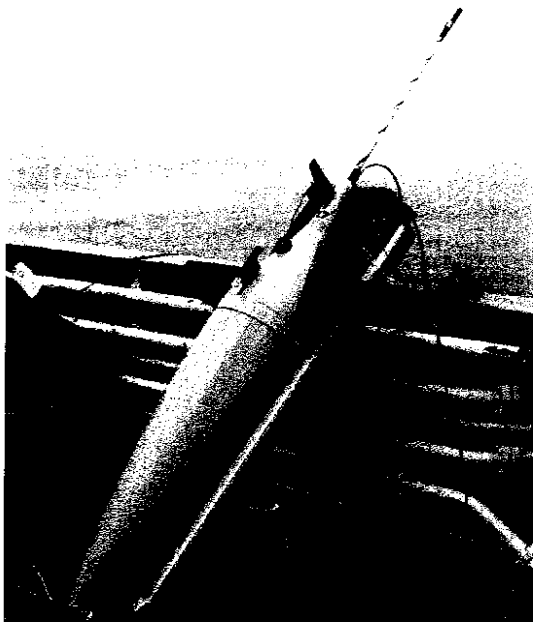
2.1 Nature and objectives of the project:

ITOP aims to study the ocean response to typhoons in the western Pacific Ocean. Understanding the impact of such strong storms on the ocean will help improve track and intensity forecasts and thus benefit those living in areas subject to typhoons. The primary focus of the experiment is to improve our understanding of the cooling of the upper ocean associated with the passage of a typhoon ("cold wake"). In particular, we seek to (1) measure the formation and evolution of the cold wake via air-deployed oceanographic instruments and ship surveys, and (2) get a detailed description of the atmospheric forcing on the ocean, by measuring the atmospheric conditions before, during, and after the storm.

This project will employ long-range, autonomous gliders to sample areas that have a high probability of being subjected to typhoons. Eight gliders will be deployed between June and September from the R/V *Revelle* at locations within the operating region (please see attached chart) and will then occupy surveys designed to sample typhoons. Gliders may be deployed from multiple cruises. Gliders will be recovered in October/November at the end of the experiment. Because typhoon paths are difficult to predict, it is not possible to specify the deployment, recovery or survey locations in advance of the actual field program. We will deploy between zero and eight gliders, depending on conditions, and all vehicles will remain with the operating area specified in the attached chart.

Seagliders are small, reusable, long-range (3000 – 4000 km) autonomous underwater vehicles designed to glide from the ocean surface to as deep as 1000 m and back while collecting profiles of temperature, salinity, dissolved oxygen concentration and optical properties. Gliders steer through the water by controlling attitude (pitch and roll) and can thus navigate between waypoints to execute survey patterns; or they hold station while profiling and collect Eulerian time series as a 'virtual mooring'. Mission durations depend largely on ambient stratification and profile depth, but for this application should be approximately 6 months. Gliders are commanded remotely and report their measurements via Iridium satellite telephone at the conclusion of each dive. The vehicles also archive all data to onboard storage for delayed mode transmission or post-recovery interrogation. They use GPS navigation at the sea surface to dead reckon toward commanded targets by assimilation with a Kalman filter or through other algorithms. Navigation and knowledge of vehicle buoyancy and pitch angle allows estimation of depth-averaged current and suitably energetic vertical velocity fluctuations. Sensor suites include pressure, temperature, conductivity, Doppler sonar, dissolved oxygen, chlorophyll fluorometer, and optical backscatter. Gliders have been deployed and recovered from a wide range of platforms including small rubber boats, chartered fishing vessels and large research ships. Because the vehicles are relatively small and light, special handling gear is not required and field teams typically consist of one or, at most, two individuals. In more remote regions, we have also had significant success training local collaborators to handle field operations, eliminating the need to send highly-trained

personnel from our laboratories.



Seaglider photos. The Iridium/GPS antenna sits at the end of the long tail. Sensors are carried in the two narrow, cylindrical housings in the top aft region of the glider.

2.2 Relevant previous or future research cruises:

None, however we will be submitting an additional request for a similar time frame.
2010-006

2.3 Previously published research data relating to the project:

None

3. *Methods and Means to be Used*

Deployments may take place in the Taiwanese, Philippine or Japanese EEZs' or within international waters. Glider-based survey operations could take place in any of these EEZs, as might recoveries. We respectfully seek permission for R/V Revelle to enter the EEZs to deploy and recover gliders and to collect a small number of CTD profiles for the purpose of calibrating glider sensors, and for gliders to sample within the EEZs (in the area marked on the chart). Dates will extend from 11 June – 26 November, 2010.

3.1 Particulars of vessel:

Name:	R/V Roger Revelle
Nationality (Flag state):	USA Flag
Owner:	U.S. Navy
Operator:	University of California, San Diego, Scripps Institution of Oceanography
Overall length (meters):	84 m. [275']
Maximum draught (meters):	17'
Displacement/Gross tonnage:	3,180 long tons
Propulsion:	Tow 3000 hp Propulsion General Electric Bow Thruster: 1180 hp Azimuthing jet Tyupe Elliot Gill Model 50T 35 Propulsors: Two 3000 hp Z-Drives Lips Type FS 2500-450/1510BO
Cruising & Maximum speed:	12 knots
Call sign:	KAOU
Method and capability of communication (including emergency frequencies):	Email, master@rv-revelle.ucsd.edu Inmarsat-B, Telephone, Indian, 011-873-336780030 Alternate, 011-873-336780020 Fax, Primary, 011-873-336780031 Alternate, 011-873-336780021 Telex, Primary, 336780033 (AnsBk=KAOU) Alternate, 336780022 (AnsBk=KAOU) Inmarsat-C, 436780010 Radio, Vessels guard standard GMDSS frequencies for calling, distress and dissemination of marine safety information. MMSI #, 367800100 SELCAL #, 71410 Telex, Primary, 336780033 (AnsBk=KAOU) Alternate, 336780022 (AnsBk=KAOU) Inmarsat-C, 436780010 Radio, Vessels guard standard GMDSS frequencies for calling, distress and dissemination of marine safety information. MMSI #, 367800100 SELCAL #, 71410
Name of master:	Tom Desjardins
Number of crew:	22
Number of scientists on board:	No more than 37

3.2 Aircraft or other craft to be used in the project:

No aircraft.

3.3 Particulars of methods and scientific instruments

Types of samples and data	Methods to be used	Instruments to be used
T, S, chlorophyll fluorometer, light attenuation (660nm), CDOM fluorescence, dissolved oxygen profiles	Shipboard CTD profiling	Seabird CTD and rosette
Water velocity profiles	Ship-based surveys	Shipboard ADCP, GPS, GPS attitude
Meteorological variables (e.g. wind speed, heat flux, air temperature, etc)	Ship-based surveys	Shipboard meteorological sensors
T, S, dissolved oxygen, chlorophyll fluorescence, blue/red light backscatter, water velocity shear	Glider-based surveys	Autonomous gliders (Seaglider, please see paragraph above)
Underway (UW) multibeam	Swath mapping	Simrad 12khz
UW Mags	Magnetometer deployment	Marine Magnetics total field gradiometer
UW Gravity	Gravimeter	Bell Gravimeter

*Indicate type and specification of instruments (e.g. length and number of cables towed)

3.4 Indicate whether harmful substances will be used:

No harmful substances to be used.

3.5 Indicate whether drilling will be carried out:

No drilling to be conducted.

3.6 Indicate whether explosives will be used (Type and trade name, Chemical content, Depth of trade class and stowage, Size, Depth of detonation, Frequency of detonation, and Position in latitude and longitude):

No explosives will be used.

4. Installations and Equipment

Gliders will operate autonomously (without the presence of the ship) between 11 June – 26 November, 2010. We request permission for them to sample within the EEZs of Taiwan, Japan and the Philippines during this period.

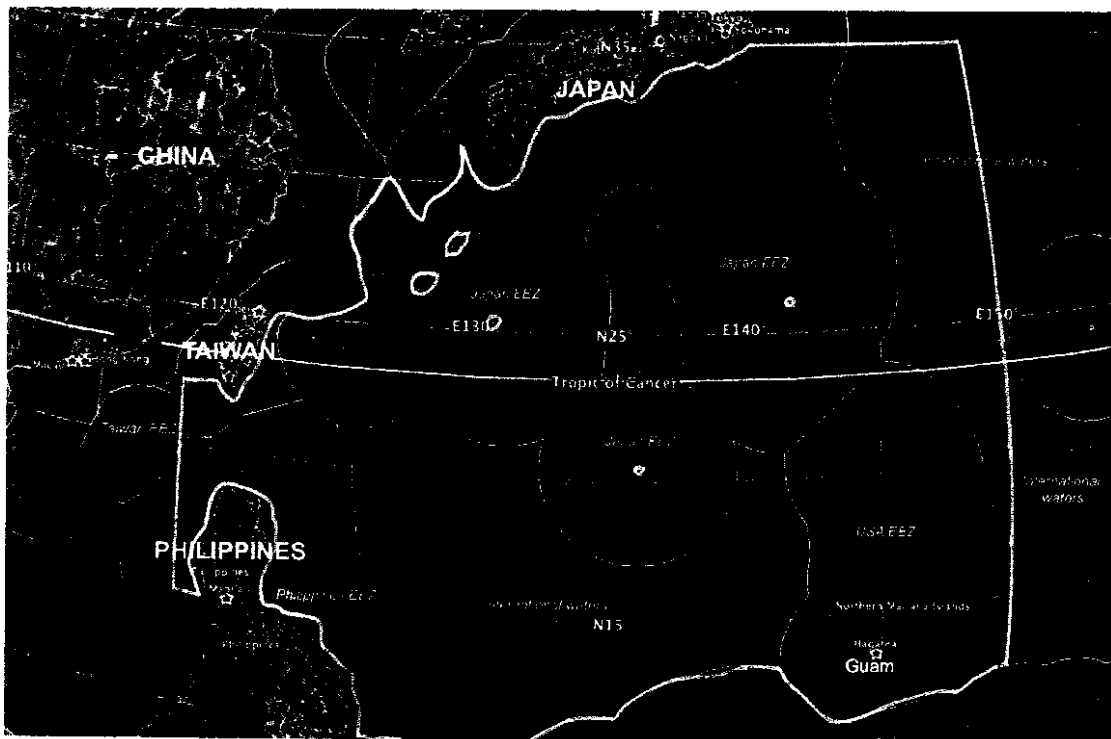
5. Geographical Areas

5.1 Indicate geographical areas in which the project is to be conducted (with reference in latitude and longitude):

See chart below.

5.2 Attach chart(s) at an appropriate scale showing the geographical areas of the intended work and, as far as practicable, the positions of intended stations, the tracks of survey lines, and the locations of installations and equipment.

Request permission to operate gliders and collect CTD and shipboard ADCP profiles within the region specified on the attached chart.



The gray box marks the ITOP operation area- all glider activities will be confined to within this box. Although they lie within the box, some areas are excluded. Operations will not occur within 12 nm territorial waters of Japan, within 12 nm of the Philippines or within 24 nm of Taiwan. The region north of the Ryuku Island chain that is part of the Chinese EEZ will also be excluded.

Proposed Time of Multiple Entries

The departure and return dates are listed above for the two cruises at the beginning and end of the experiment are : 11 June – 5 July 2010 and 22 July – 26 November 2010. R/V

Revelle cruises that take place between 22 July – 26 November will be scheduled in response to passing typhoons, so it is not possible to specify dates in advance.

*Cruises
bet. 22
to 26 Nov
can't be
scheduled
in advance*

Gliders (8 gliders total) will conduct surveys from 11 June – 26 November 2010. However, due to uncertainties concerning glider operations and navigation, it is not possible to predict timing for glider surveys.

5.2 Attach chart(s) at an appropriate scale (1 page, high-resolution) showing the geographical areas of the intended work and, as far as practicable, the positions of intended stations, the tracks of survey lines, and the locations of installations and equipment.

6. Dates

6.1 Expected dates of first entry into and final departure from the research area of the research vessel:
R/V Revelle First entry in approximately 11 June 2010
R/V Revelle departs region 26 November 2010
Gliders are anticipated to be in the area until 26 November 2010.26
6.2 Indicated if multiple entry is expected: yes

7. Port Calls

7.1 Dates and names of intended ports of call:
Possible ports include Kaosiung, Keelung, Manila, Ilo Ilo, Naha and Guam. Depending on Typhoon tracks, other port might be sought for safety and logistical concerns. The agent has not been established in the Philippines.

N.B. A separate request should be submitted by Note Verbales for intended port calls by public vessels.

Jardine, Matheson & Co
13/14F, No. 50 Hsin Sten South Road, Sec.1
Taipei, P.O. Box 81
Taiwan

Tel: 886-2 23931177
Fax: 886-2 23920435

Gen Email: operation.tpc@jm.com.tw

8. Participation

8.1 Extent to which Philippines scientists or officials will be enabled to participate or to be represented in the research project:
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Participation by Japanese, Taiwanese and Philippine colleagues encouraged.

8.2 Proposed dates and ports for embarkation / disembarkation:

R/V Revelle will mostly operate from Kao-Hsiung, Taiwan, Multiple embarkations /debarkations, beginning 11 June 2010 and ending 26 November 2010.

9. Access to data, samples and research results

9.1 Expected dates of submission to the Ministry of Foreign Affairs of Philippines of preliminary reports and data which should include the expected dates of submission of the final results:

No more than 30 days from the end date of the cruise.

9.2 Proposed means for access by Philippines scientists or officials to samples:

CD or DVD provided, with further access to the data via internet download or CD/DVD on request.

9.3 Proposed means to provide Philippines with assessment of data, samples and research results or provide assistance in their assessment or interpretation:

Participation in international data analysis workshops and science symposia during the analysis phase of the project.

9.4 Proposed means of making results internationally available:

Publication in scientific journals and reports.

(Form revised August 27, 2003)