Application for Consent to Conduct Marine Scientific Research

1. General Information

1.1 Reference ID:

Application number: F2010-089
Project name: MV1118

1.2 Sponsoring institution(s):

Institution	Contact Information	Director
National Science Foundation	Division of Ocean Sciences 4201 Wilson Blvd. Arlington, VA 22230 Program Manager: L. Goad	Dr. Arden Bement, Jr.

1.3 Scientist in charge of the project:

Name: Appelgate, Bruce
Affiliation: Scripps Institution of Oceanography
Address:
Phone: 858-524-2220
Fax: 858-822-5811
Email: tba@ucsd.edu

1.4 Scientists from coastal states involved in the planning of the project:

See Section 8 (*Participation*)

1.5 Submitting officer:

Name: Rose Dufour/, Elizabeth Brenner
Affiliation: Scripps Institution of Oceanography
Address: 9500 Gilman Drive
Phone: 858-534-2841
Fax: 858-822-5811
Email: shipsked@ucsd.edu

2. Description of Project

2.1 Nature and objectives of the project:

Routine collection of geological, oceanographic and meteorological data by our research vessel Melville in transit from Cape Town, SA to Valparaiso, Chile. During this transit we request permission to collect data with the ships scientific senors while the ships is in transit through South African, Argentina, UK, and Chilean EEZs. Since this is a transit cruise we have no funds to divert the ship other than minor ancillary work that may take place in addition to routine underway data collection. They include, pelagic and plankton studies, marine mammal survey, and an optical survey .... ********** Colección rutinaria de datos geológicos, oceanográficos y meteorológicos con el barco de investigación R/V Melville en tránsito Cape Town, Sur Africa a Valparaiso, Chile. Durante este tránsito, solicitamos permiso para colectar datos con los censores científicos de la nave mientras la nave ase el transito por aguas de Sur África, Argentina, y el UK. Como este crucero es para colocar el barco desde Sur África a Chile, 'un tránsito' no hay fondos para desviar el barco mas que para colectar datos de menor trabajos auxiliares que se puedan conducir en el curso de la recolección rutinaria de datos. Esto trabajos auxiliares incluyen, pelágicos y los estudios de plancton, marino encuesta de mamíferos, y encuesta ópticos.

2.2 Relevant previous or future research projects:

Scripps Institution of Oceanography uses all opportunities to collect and share data during transit missions from one port to

another. Scripps Institución de Oceanografia utiliza todas las oportunidades de recoger y de compartir datos durante misiones del transito a partir de un puerto a otro.

2.3 Previously published research data relating to project:

None

3. Methods and Means to be Used

3.1 Platform:

Name:	MELVILLE
Nationality (Flag State):	United States
Overall length:	279
Maximum draught (meters):	16.5
Displacement/gross tonnage:	2,200
Propulsion:	
Call sign:	WECB
Cruising speed:	
Maximum speed:	
Name of captain/master:	Capt. Chris Curl
Number of crew:	23
Number of scientists on board:	5

3.2 Other craft used in the project:

none

3.3 Methods and scientific instruments:

Types of Samples and Data	Methods to be Used	Instruments to be Used
Underway (UW) multibeam and single beam****** multihaz y rayo individual en transito	Swath mapping Sub-Bottom Profiler*****Cartografia y Sub Profiler	EM120 multibeam, 12khz and Knudsen 320 B 3.5 / 12
Meteorological variables (e.g. wind speed, heat flux, air temperature, etc)********** Meteorológica variables (por ejemplo, la velocidad del viento, flujo de calor, tempertature de aire, etc)	Ship-based surveys**********Enquesta sobre el buque	Shipboard meteorological sensors**********Sensores meteorológicos a bordo el buque
UW Mags if available********** Ejecución magnética encuestas en marcha si es disponible	Magnetometer deployment**********Despliegue de magnetómetro	Marine Magnetics total field gradiometer********** Marine Magnetics total field gradiometer
UW Gravity if available**** gravimétrica en marcha si es disponible	Gravity collection******* coleccion de gravedad	Bell Gravimeter
Marine Mammal observation******** Mamiferos Marinos de observación	over the side deployment - deploy a free vehicle (HARP) HARP would be recovered at a later date (6 months)****** Sobre el despliegue lateral. Despliegue un vehiculo libre (HARP). La HARP sería recuperada más adelante (6 meses).	observation, sonobuoys deployment****** Observación, despliegue de los sonobuoys
Plankton & pelagic ecosystem sampling. ****** Muestreo de plancton y ecosistema pelágico	Plankton tows, water collection. ****** Remolca de reds de plancton , colección del agua.	Tow nets, CTD, and ship's underway pumping system.****** Remolque las redes, CTD, y enviaron el sistema de bombeo del el

		barco.
Water-leaving radiance and aerosol optical thickness. ****** Agua-dejando la radiación y el aerosol grueso óptico.	Measurements need to be made from the bow, weather permitting, by viewing sequentially the ocean surface and the Sun. The ship does not need to stop to collect data.****** Las medidas necesitan ser hechas del arco de la nave, tiempo permitiendo, viendo secuencialmente la superficie del océano y el sol. La nave no necesita parar para recoger datos.	Using hand-held SIMBADA radiometers.****** Radiómetros de SIMBADA sostenidos a mano.
Marine optical properties: profiles (200 m) of attenuation and absorption coefficients, backscattering coefficient, PAR, chlorophyll fluorescence, upward radiance, and downward irradiance.****** Características ópticas marinas: perfiles (200 m) de los coeficientes de la atenuación y de absorción, del coeficiente del backscattering, de la PAR, de la fluorescencia de la clorofila, de la radiación ascendente, y del irradiance hacia abajo.	Optical Package****** Paquete óptico	Optical Package****** Paquete óptico
Water sampling at several depths. For measuring CDOM absorption, particulate absorption, POC, chlorophyll concentration. Some samples will be processed onboard, others will be stored in liquid nitrogen for analysis in the laboratory after the cruise. ****** Muestreo del agua en varias profundidades. Para medir la absorción de CDOM, absorción de partículas, PC, concentración de la clorofila. Algunas muestras serán procesadas onboard, otras serán almacenadas en el nitrógeno líquido para el análisis en el laboratorio después de la travesía.	Sampling bottles, buckets or the ships water pumping system. ****** Botellas de Muestre, cubetas o el sistema de bombeo de la nave.	Sampling bottles, buckets or the ships water pumping system. ****** Botellas de Muestre, cubetas o el sistema de bombeo de la nave.
Passive acoustic ******** Acústico pasivo.	Deployment of expendable hydrophone***** Despliegue del hidrófono consumible.	Sonobuoys

3.4 Will harmful substances be used?

No.

3.5 Will drilling be carried out?

No.

3.6 Will explosives be used?

No.

3.7 Will protected species be studied?

No.

4. Installations and Equipment

4.1 Will there be any installations?

No.

5. Geographical Area(s)

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

A transit line between Cape Town, SA and Valparaiso, Chile See attached may for details.

5.2 Attach chart(s) 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:

See Section 10 (*Attachments*)

6. Dates

6.1 Expected dates:

Project start date: Feb 19, 2011
Project end date: Mar 16, 2011

Coastal Area	Entry Date	Final Departure Date	Multiple Entries Expected?
South Africa	Feb 19, 2011 12:00:00 AM	Feb 22, 2011 12:00:00 AM	No
Explanation of multiple entries:			
Extent to which South Africa will be enabled to participate or to be represented in the research project: In accordance with LOS Article 249 a) , we acknowledge the right of the government of South Africa to send an observer to participate on this transit cruise. Due to our lack of funding, we are unable to provide any funds for a South African observer to travel to or from the vessel. However, if the government of South Africa chooses to send an observer, the research vessel will welcome him or her aboard and provide food and living accommodations at no charge while the vessel is at sea.			
United Kingdom	Feb 23, 2011 12:00:00 AM	Mar 7, 2011 12:00:00 AM	No
Explanation of multiple entries:			
Extent to which United Kingdom will be enabled to participate or to be represented in the research project: Extent to which coastal state can particpate or be represented in the research project: In accordance with LOS Article 249 a) , we acknowledge the right of the government of United Kingdom a to send an observer to participate on this transit cruise. Due to our lack of funding, we are unable to provide any funds for a UK observer to travel to or from the vessel. However, if the government of the UK chooses to send an observer, the research vessel will welcome him or her aboard and provide food and living accommodations at no charge while the vessel is at sea.			
Argentina	Mar 3, 2011 12:00:00 AM	Mar 16, 2011 12:00:00 AM	No
Explanation of multiple entries:			
Extent to which Argentina will be enabled to participate or to be represented in the research project: Extent to which coastal state can particpate or be represented in the research project: In accordance with LOS Article 249 a) , we acknowledge the right of the government of Argentina to send an observer to participate on this transit cruise. Due to our lack of funding, we are unable to provide any funds for a Argentine observer to travel to or from the vessel. However, if the government of Argentina chooses to send an observer, the research vessel will welcome him or her aboard and provide food and living accommodations at no charge while the vessel is at sea. ********** En conformidad con el artículo 249 a) de Convención de las Naciones Unidas sobre los derechos del Estado, reconocemos que el gobierno de Argentina puede enviar un representante a participar en este crucero. No tenemos dinero para pagar por el viaje a la nave. Sin embargo, si el gobierno de Argentina decide enviar un observador, el buque de investigación dará la bienvenida a él o a ella a bordo y proporcionar alimentos y alojamientos sin cargo, mientras el buque esté en el mar.			
Chile	Mar 10, 2011 12:00:00 AM	Mar 16, 2011 12:00:00 AM	No
Explanation of multiple entries:			
Extent to which Chile will be enabled to participate or to be represented in the research project: Extent to which coastal state can particpate or be represented in the research project: In accordance with LOS Article 249 a) ,			

we acknowledge the right of the government of Chile to send an observer to participate on this transit cruise. Due to our lack of funding, we are unable to provide any funds for a Chilean observer to travel to or from the vessel. However, if the government of Chile chooses to send an observer, the research vessel will welcome him or her aboard and provide food and living accommodations at no charge while the vessel is at sea. ********** En conformidad con el artículo 249 a) de Convención de las Naciones Unidas sobre los derechos del Estado, reconocemos que el gobierno de Chile puede enviar un representante a participar en este crucero. No tenemos dinero para pagar por el viaje a la nave. Sin embargo, si el gobierno de Chile decide enviar un observador, el buque de investigación dará la bienvenida a él o a ella a bordo y proporcionar alimentos y alojamientos sin cargo, mientras el buque esté en el mar.

7. Port Call(s)

Port	Arrival Date	Departure Date	Special Logistical Requirements	Shipping Agent
Cape Town	Feb 19, 2011 12:00:00 AM	Feb 19, 2011 12:00:00 AM	None other than fuel and provisions.	The agent has not yet been established.
Valparaiso	Mar 16, 2011 12:00:00 AM	Mar 16, 2011 12:00:00 AM	Dates given are latest; Actual arrival dates may range from 3/11- 3/16/2011. Fueling and provisions.	Agent: A.J. Broom y Cia S.A.C. Physical Address Errazuriz 629 3er. Piso, Valparaiso Chile Tel: 56 - 32 2268200 Fax: 56 - 32 2213308 Web: http://www.broomgroup.com/

8. Participation

8.1 Extent to which coastal state(s) will be able to participate or to be represented in the research project:

See Section 6 (*Dates*)

8.2 Proposal dates and ports for embarkation/disembarkation:

See Section 7 (*Port Call(s)*)

9. Access to Data, Samples and Research Results

9.1 Expected dates of submission to coastal State of preliminary reports, which should include the expected dates of submission of the final results:

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

9.2 Propose means for access by coastal state to data and samples:

Data will be provided through official channels at no cost to the coastal State(s). Samples will be provided upon request.

9.3 Propose means to provide coastal State with assessment of data, samples and research results or provide assistance in their assessment or interpretation:

Assessment of data, samples, and research results will be provided at no cost to the coastal State(s). Assistance in futher assessment or interpretation will be provided upon request.

9.4 Propose means of making results internationally available:

All data from samples will be shared with clearance countries. The R2R Portal is a central shore-side data gateway through which underway data from oceanographic expeditions will be routinely cataloged and securely transmitted to the national long-term digital data archives including the National Geophysical Data Center (NGDC) and National Oceanographic Data Center (NODC). Data

submission will be established through ship operators rather than individual science parties, ensuring routine preservation of the full underway data distribution from each ocean expedition. http://gdc.ucsd.edu/ Todos los datos de las muestras serán compartidos con los países. El Portal de R2R es un portal central de los datos a través del cual en curso los datos de expediciones oceanográficas de forma rutinaria catalogados rutinariamente y transmitidos con seguridad a los archivos de los datos digitales nacionales a largo plazo incluyendo el centro de datos geofisico nacional (NGDC) y el centro de datos Oceanográficos nacional (NODC). La presentación de los datos establecerá a través de operadores de la nave mas bien que de partidos individuales de la ciencia, asegurando la preservación rutinaria en curso de la distribución completa de los datos de cada expedición. http://gdc.ucsd.edu/

10. Attachment(s)

Final Report	
Attachment	Estimated Delivery Date
No Final Report Currently Available	

Additional Attachments		
Attachment Type	Attachment	Submission Date
Proposed Cruise Track	1284757970423_ATT00001chart.png	
Supplemental Material	1285024587930_Melvillespanishinfo.docx	
Supplemental Material	1286298970260_TransitCT_Valpo.pdf	
Proposed Cruise Track	1287592407337_TransitMap-Argentina.jpg	