



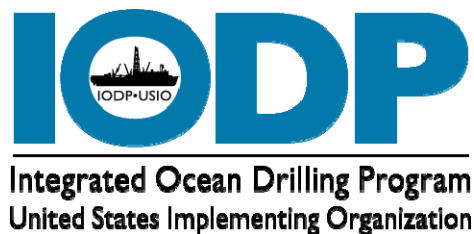
**INTEGRATED OCEAN DRILLING PROGRAM
United States Implementing Organization**

FY08 Quarterly Report 1

1 October–30 December 2007

NSF Contract No. OCE-0352500

**Submitted by the USIO
to
The National Science Foundation
and
IODP Management International, Inc.**



11 February 2008

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INTRODUCTION

This organization of this quarterly report reflects activities and deliverables that are outlined in the Integrated Ocean Drilling Program U.S. Implementing Organization (IODP-USIO) FY08 Annual Program Plan as implemented by the USIO, which is composed of Consortium for Ocean Leadership, Inc. (Ocean Leadership), and its partners, Texas A&M University (TAMU) and Lamont-Doherty Earth Observatory (LDEO) of Columbia University.¹

MANAGEMENT AND ADMINISTRATION

CONTRACTUAL ACTIVITIES

OCEAN LEADERSHIP

NSF CONTRACT OCE-0352500 WITH OCEAN LEADERSHIP

Ocean Leadership received the following modification during the reporting period.

- Modification 28: Provided a funding increment of \$10,000,000 for Systems Integration Contract costs (SIC) estimated through 2 April 2008.

OCEAN LEADERSHIP SUBCONTRACT JSC 4-03 WITH LDEO

Ocean Leadership issued the following modifications during the reporting period.

- Modification 17: Approved the FY08 Annual Program Plan for POC in the amount of \$1,800,000 and provided the first POC funding increment of \$300,000.
- Modification 18: Approved the total FY08 Annual Program Plan in the amount of \$5,895,999 and provided a funding increment of \$796,000 for SOC.
- Modification 19: Withdrew \$261,616 of uncommitted funding from the FY07 Annual Program Plan.
- Modification 20: Provided incremental funding of \$581,495 toward activities in the approved FY08 Annual Program Plan.

OCEAN LEADERSHIP SUBCONTRACT JSC 4-02 WITH TAMRF

Ocean Leadership issued the following modifications during the reporting period.

- Modification 26: Approved the FY08 Annual Program Plan in the amount of \$42,994,778 and provided funding increments of \$4,500,000 for platform operating costs (POC)/SIC activities and \$1,658,313 for science operating costs (SOC).
- Modification 27: Provided funding increments of \$11,536,465 for POC/SIC/SOC Operations and \$930,000 for SOC Nonoperations.

TAMRF

MISCELLANEOUS ACTIVITY

- 11 October 2007: Forwarded to Ocean Leadership the FY07 Small Business Standard Form 295 Report.

¹ In this document, references to TAMU include Texas A&M Research Foundation (TAMRF).

- 16 October 2007: Forwarded to Ocean Leadership the FY07 third quarter and fourth quarter Small Business Standard Form 294 Reports.
- 18 October 2007: Forwarded to Ocean Leadership the Annual Property Report.
- 23 October 2007: Forwarded to Ocean Leadership a request for approval to sell drill pipe that is no longer useful to IODP operations.

PERSONNEL STATUS

OCEAN LEADERSHIP

There were no positions vacated, opened, advertised, or filled during the quarter.

LDEO

There were no positions vacated, opened, or advertised during the quarter.

The following positions were filled during the quarter:

- Logging Staff Scientist (Angela Slagle): 1 December 2007
- Logging Staff Scientist (Helen Evans): 1 December 2007 (start date 1 February 2008)

TAMU

The following positions were vacated during the quarter:

- Software Applications Developer (Weining Chen): 1 October 2007
- Applications Developer III (Rupal Haribhakti): 18 October 2007
- Senior Marine Computer Specialist (David Morley): 31 October 2007
- Assistant Editor (Jami Castillo): 30 November 2007

The following positions were opened and advertised during the quarter:

- Software Applications Developer
- Associate Marine Computer Specialist

There were no positions filled during the quarter.

HEALTH, SAFETY, AND ENVIRONMENT

PROJECTS AND OTHER ACTIVITIES

Programmatic Environmental Impact Statement: A Record of Decision (ROD) and a Final USIO Programmatic Environmental Impact Statement (PEIS) were completed. Both documents will be submitted to National Science Foundation (NSF) for review in January 2008. The PEIS and will be effective with the IODP Phase 2 expeditions of the *JOIDES Resolution*.

IODP-USIO WEB SERVICES

Main activities during this quarter included updating the navigation, banners, content, and metadata of the USIO site to reflect initiation of Phase 2 operations, creation of Ocean Leadership, and renaming of *JOI Learning* to Deep Earth Academy. Staff also worked on

creating a poster on the Legacy of Scientific Ocean Drilling and preparing for the American Geophysical Union (AGU) Fall Meeting.

WEB SITE STATISTICS

USIO WEB SITE

The USIO Web site is hosted at TAMU, LDEO, and Ocean Leadership. Comparison of Web access statistics averages between FY07 Q4 and FY08 Q1 indicates a 5.47% increase in Web site traffic.

FY08 Q1 USIO Web Site				
Parameter	www.iodp-usio.org	iodp.ldeo.columbia.edu	iodp.tamu.edu	Total
Page views	1,267	187,372	455,531	644,170
Site visits*	841	23,203	45,393	69,437

*Where possible, visits by USIO employees and search engine spiders have been filtered out.

New and updated Web pages	Release date	URL
Curation: Core repository information	Oct 2007	http://iodp.tamu.edu/curation/repositories.html
Expeditions: Expeditions 317 and 319 information (Pacific Equatorial Age Transect)	Nov 2007	http://iodp.tamu.edu/scienceops/expeditions/equatorial_pacific.html
Expeditions: Expedition 318 information (Bering Sea)	Nov 2007	http://iodp.tamu.edu/scienceops/expeditions/bering_sea.html
Expeditions: Expedition 321 information (Canterbury Basin)	Nov 2007	http://iodp.tamu.edu/scienceops/expeditions/canterbury_basin.html
Expeditions: Expedition 323 information (Wilkes Land)	Nov 2007	http://iodp.tamu.edu/scienceops/expeditions/wilkes_land.html
Education resources	Dec 2007	http://www.iodp-usio.org/Education
Legacy of Scientific Ocean Drilling	Dec 2007	http://www.iodp-usio.org/About/legacy.html

IODP PUBLICATIONS WEB SITE

The IODP Publications Web site is hosted at TAMU. New publications Web pages are shown in “Publications.”

FY08 Q1 IODP Publications Web Site	
Parameter	publications.iodp.org
Page views	166,967
Site visits*	20,193

*Where possible, visits by USIO/TAMU employees and search engine spiders have been filtered out.

LEGACY WEB SITES

The Ocean Drilling Program (ODP) Web sites are hosted at TAMU and Ocean Leadership, and the Deep Sea Drilling Project (DSDP) publications Web site is hosted at TAMU.

Parameter	FY08 Q1 ODP Web Site			FY08 Q1 DSDP Web Site
	www-odp.tamu.edu	www.odplegacy.org	Total ODP	www.deepseadrilling.org
Page views	2,807,105	9,333	2,816,438	101,289
Site visits*	208,327	3,314	211,641	12,860

*Where possible, visits by USIO/TAMU employees and search engine spiders have been filtered out.

New and updated Web pages	Release date	URL
ODP Final Technical Report	Nov 2007	http://www.odplegacy.org/PDF/ODP_Final_Technical_Report.pdf

TECHNICAL, ENGINEERING, AND SCIENCE SUPPORT

IODP-USIO EXPEDITION SCHEDULE

Expedition		Port (Origin)	Dates ^{1,2}	Total Days (Port/Sea)	Days at Sea (Transit/Ops)	Co-Chief Scientists	USIO Contact(s)
Deployment, mobilization, sea trials, and transit	NA	Singapore	1 April–18 May 2008 ¹	47 (15/32)	25/7	NA	TAMU: J. Baldauf LDEO: G. Iturrino
Pacific Equatorial Age Transect (PEAT) 1/ Juan de Fuca Hydrogeology (Remedial Cementing) ³	317	Honolulu, Hawaii	18 May–18 July 2008	61 (7/54)	19/35	M. Lyle, I. Raffi	TAMU: C. John LDEO: TBN
Bering Sea	318	Astoria, Oregon ⁴	18 July–17 September 2008	61 (3/58)	12/46	K. Takahashi, C. Ravelo	TAMU: C. Zarkian LDEO: J. Inwood
PEAT 2	319	Tomakomai, Japan	17 September–17 November 2008	61 (6/55)	26/29	H. Pälike, N. Ahagon	TAMU: K. Gamage LDEO: TBN
Canterbury Basin	321	Tahiti, French Polynesia	17 November 2008–17 January 2009	61 (5/56)	11/45	TBN	TAMU: J. Geldmacher LDEO: G. Guerin
Wilkes Land ⁵	323	Wellington, New Zealand	17 January–22 March 2009	64 (5/59)	16/43	TBN	TAMU: A. Klaus LDEO: T. Williams
Mariana Convergent Margin ⁶	TBN	Wellington, New Zealand	22 March–22 May 2009	61 (5/56)	18/38	TBN	TAMU: J. Miller LDEO: G. Iturrino

Notes:

¹ Dates for expeditions may be adjusted pending final vessel delivery date from shipyard.

² The start date reflects the initial port call day. The vessel will sail when ready.

³ The expedition will consist of operations in both the Equatorial Pacific (30 days) and Juan de Fuca (5 days). Following PEAT operations, scientists will disembark in San Diego, California, on or about 7 July 2008 prior to Juan de Fuca Remedial Cementing operations.

⁴ The port of call is tentative. Note that the port call is split between San Diego, California (2 days), and Astoria, Oregon (3 days).

⁵ Wilkes Land activities include completion of the Adelie Drift project.

⁶ Although the Mariana Convergent Margin expedition is currently shown, the actual implementation of this expedition is awaiting final FY09 budget guidance.

EXPEDITION PLANNING AND IMPLEMENTATION ACTIVITIES

IODP-USIO PACIFIC EQUATORIAL AGE TRANSECT EXPEDITIONS

Expedition Planning: The *Scientific Prospectus* was completed and published and science planning and communication with the science party continued.

Expedition Staffing: Science staffing was completed during the quarter. However, subsequent guidance from the lead agencies and IODP-MI indicated that Australia will be joining IODP and Australian scientists should be staffed for the current expedition schedule. A deadline of 1 February 2008 was set for Australian nominations for Pacific Equatorial Age Transect (PEAT) expeditions.

IODP-USIO JUAN DE FUCA HYDROGEOLOGY (REMEDIAL CEMENTING)

Expedition Planning: Clearance documentation was submitted to Canada and internal development of the operations strategy began.

IODP-USIO BERING SEA EXPEDITION

Expedition Planning: The *Scientific Prospectus* was published and clearance documentation for Russian sites was submitted.

Expedition Staffing: Nominations were received from the Program Member Offices (PMOs). The first round of invitations was issued and all responses were received. A second round of invitations will follow in the next quarter. A deadline of 1 February 2008 was set for Australian nominations for the Bering Sea Expedition.

IODP-USIO CANTERBURY EXPEDITION

Expedition Planning: The pre-expedition meeting was scheduled for 10 and 11 January 2008 and preparations for the meeting were initiated.

Expedition Staffing: A call for applications was issued with nominations due to the USIO on 1 February 2008. Invitations for both Co-Chief Scientist positions were issued and both positions were filled.

IODP-USIO WILKES LAND EXPEDITION

Expedition Planning: The pre-expedition meeting was held in College Station on 17–18 December 2007.

Expedition Staffing: A call for applications was issued with nominations due to the USIO on 1 March 2008. Invitations for both Co-Chief Scientist positions were issued and both positions were filled.

STATUS OF EQUIPMENT

A loan agreement was executed with Center for Deep Earth Exploration (CDEX) for two Davis-Villinger Temperature Probes (DVTPs), three Advance Piston Corer Temperature tool (APCT) heat flow shoes, two heat flow catcher subs, one Colletted Delivery System, and one laptop computer for use during Expeditions 314–316.

PROJECTS AND OTHER ACTIVITIES

Common Downhole Data Acquisition system: The Davis-Villinger Temperature Probe (DVTP) was upgraded with the common downhole data acquisition (CDAQ) system, a battery module, and new firmware. The upgraded tool, named the Sediment Temperature tool (SET), will be used for evaluating the CDAQ. The SET prototype was shipped to *Chikyu* for sea trials and acceptance of the CDAQ.

Simulated Borehole Test Facility: The data acquisition software for the Simulated Borehole Test Facility (SBTF) was completed.

Because both DVTP tools were sent to the *Chikyu* for deployment on Expeditions 315 and 316, configuration began of a replacement tool for use with the SBTF. This replacement tool will include an upgrade of the Davis-Villinger Temperature and Pressure Probe (DVTPP) with CDAQ electronics, creating a test version of the Sediment Temperature Pressure tool (SETP).

New thermistors for the SETP were ordered. A draft of the SBTF operations manual was completed. SBTF acceptance testing will resume in late January 2008.

Metrology Laboratory (Calibration Laboratory): A calibration data archive was created on the local network, including raw calibration data, calibration records and check standards data for each of the metrology instruments, and calibration coefficients for all the instruments calibrated in the IODP-USIO Metrology Laboratory. Templates for temperature and resistance calibration certificates were created. Calibration data, coefficients, and certificates for three APCT Model 3 (APCT3) data loggers were delivered to CDEX.

Downhole Sensor Sub and Remote Memory Module: Communication between the Downhole Sensor Sub (DSS) and Remote Memory Module (RMM) failed during testing at the Schlumberger facility in Sugarland, Texas. Firmware in the DSS was not transmitting. As soon as the firmware bug is fixed at TAMU and successful transmission is verified, arrangements will be made to ship the RMM from LDEO to TAMU to repeat the testing at Schlumberger.

Colletted Delivery System: The refurbished Colletted Delivery System was shipped to *Chikyu* for DVTP deployments on Expeditions 315 and 316.

Test Derrick/Hangar Facility: The contractor visited the hangar to review the plan for destruction of the wooden structure, which was scheduled for the first quarter of FY08.

Instrumented Water Sampler: The design of the data port module and motor drive/battery module were combined to significantly reduce the subassembly length. The outer pressure housing subs have threaded spin collars and keyed subs (similar to industry wireline tools) that will facilitate assembly and eliminate twisting wires. This part of the design is 85% complete.

Advanced Piston Corer Temperature Tool 3 Implementation: Six CDEX-owned and three USIO-owned APCT3 data loggers were tested. Three of the CDEX data loggers were calibrated and deployed to *Chikyu* for use during Expeditions 315 and 316. One of these data loggers was lost downhole during coring operations, and a second APCT3 was damaged by electrostatic discharge. The damaged APCT3 was returned to the IODP-USIO Metrology Laboratory.

Logging-While-Coring Project: The Logging-While-Coring Project Final Report was submitted to IODP Management International, Inc. (IODP-MI), on 30 October 2006.

ENGINEERING DEVELOPMENT

There are no Engineering Development deliverables scheduled for FY08.

DATA MANAGEMENT

PROJECTS AND OTHER ACTIVITIES

Storage Area Network: Storage area network (SAN) expansion and near-line storage acquisition for TAMU was completed. The SAN was upgraded to an EVA-6000 and commissioned in mid-December 2007. Near-line storage hardware was racked and configuration began.

Operational Support: TAMU's Leibert uninterruptible power supply (UPS) and power distribution unit (PDU) were replaced with new Emerson Power Systems UPS and PDU. Construction and commissioning took place during a three-day outage in December 2007.

Log Database Upgrade: Prepending of expedition number and site name to all data files was completed, providing unique names for all logging data files. Header data was harvested from ASCII format data files and made available within the meta-database.

Logging data and supporting files were moved to a server in the Columbia University Geoscience building in preparation for network outages associated with the Borehole Building renovation. This allowed continued access to logging data during the move of the Borehole server room. The database will remain on this server until renovation work on the Borehole Building is completed

Operations Database: Refinement of the database continued in preparation for USIO Phase 2 operations.

IODP DATABASES

JANUS DATABASE

DATA REQUESTS

Top 10 Countries Accessing Janus Web Database*		
Rank	Country	Visitor Sessions
1	United States	16,072
2	Germany	525
3	Japan	333
4	United Kingdom	261
5	France	174
6	China	144
7	Italy	111
8	The Netherlands	106
9	Canada	90
10	Switzerland	89
	All others	834
	Total	18,739

*Excluding access from TAMU.

Top 20 Janus Web Queries*		
Rank	Query	Uploads
1	Core photos	1,109
2	Sample report	1,036
3	Site hole summary	651
4	Hole details	526
5	Core section summary	444
6	Sample requests	379
7	Paleontology: range tables	348
8	Hole core summary	259
9	Paleontology age model	252
10	Leg summary	249
11	Bulk density (GRA)	237
12	Paleontology investigation	207
13	Chemistry: rock eval	186
14	Point calculator	180
15	Site summary trivia	167
16	Hole/core summary (alternative query)	160
17	Color reflectance	152

Top 20 Janus Web Queries*		
18	Site details	145
19	Chemistry: interstitial water	136
20	Magnetic susceptibility	135
	Others	2,266
	Total	9,224

*Excluding access from TAMU.

Other Web Statistics*		
Database query hits		
	Entire site (successful)	57,831
	Average per day	628
Visitor sessions		
	Total number of visitor sessions	18,739
	Average per day	203
	Average length of visit	00:11:22
	International visitor sessions	14.23%
	Visitor sessions of unknown origin	0.01%
	Visitor sessions from United States	85.77%
Visitors		
	Unique visitors	3,834
	Visitors who only visited once	2,214
	Visitors who visited more than once	1,620
	Average visits per visitor	4.89

*Excluding access from TAMU.

Data Requests to Data Librarian*	
Requests	Total
Country:	
United States	18
Germany	4
Australia	1
Canada	1
Denmark	1
Italy	1
United Kingdom	1
Total	27
Data:	
Photo requests	8
Data request	7
DB query problem/question	6
Data question	4
Data statistics	2
Total	27

*Excluding access from TAMU.

LOG DATABASE

DATA REQUESTS

Top 10 Countries Accessing Log Web Database*		
Rank	Country	Visitor Sessions
1	United States	4,045
2	United Kingdom	335
3	Germany	251
4	Australia	222
5	France	219
6	Brazil	175
7	Canada	167
8	Japan	141
9	India	102
10	Italy	83
	All others	2,021
	Total	7,761

*Excluding access from LDEO.

Other Log Web Statistics*		
Database query hits		
	Entire site (successful)	187,372
	Average per day	2,037
Visitor sessions		
	Total number of visitor sessions	23,203
	Average per day	737
	Average length of visit	1:59
	International visitor sessions	8.61%
	Visitor sessions of unknown origin	68.62%
	Visitor sessions from United States	22.77%
Visitors		
	Unique visitors	12,042
	Visitors who only visited once	9,650
	Visitors who visited more than once	2,392
	Average visits per visitor	16

*Excluding access from LDEO.

Data Requests to Log Data Supervisor		
Expedition	Request Number, Name, Affiliation, Country	Type of Data
	There were no data requests for this period.	

CORE CURATION

SAMPLE REQUESTS

IODP Expedition/ Repository	Visitors	Request Number, Name, Country	Number of Samples
East Coast Repository:			
		21255A, Willis, USA	46
	15	21331A, Christie-Blick, USA (Educational Tour)	No samples
	2	21372A, Christensen/Stackhouse/Goff, USA	42
		21413A, Mann/Xie, USA	3
		21412A, Verosub/Jovane/Florindo, USA (Archives)	No samples

IODP Expedition/ Repository	Visitors	Request Number, Name, Country	Number of Samples
	2	21422A, Erlich/Dzou, USA	7
Total science	4		
Total education	15		
Total PR	0		
Total:	19	4	98
Gulf Coast Repository:			
	1	21353B, Gamage, USA	No samples
		21389A, Frey/Pringle/Owens, USA	16
		21008B, Flores Villarejo/Molina, Spain	298
		21392A, Winckler/McGee, USA	21
		21397A, Ravizza, USA	139
	1	21396A, Lamy, Germany	57
		21158E, Paytan, Griffith USA	9
		21410A, Motoyama/Sawada, Japan	145
		21421A, Ohayer, Droxler, USA	162
	15	21406A, Thomas, USA (Educational Tour)	No samples
	10	21406B, Thomas, USA (Educational Tour)	No samples
		21309B, Bartoli, Switzerland, Hoenisch, USA	25
		21314B, Mortyn/Martinez-Boti, Spain	202
		21430A, Hepp/Moerz, Germany	217
		21432A, Vautravers/Hillenbrand, United Kingdom	551
		21215A, Carter, Australia	5
		21338A, Suzuki/Oseki/Tokita, Japan	88
		21051A, Lamy/Tiedemann/Saukel, Germany	3483
		21305A, Gupta/Malmgren, Sweden	156
		21341A, Rafter/Charles, USA	646
		20254B, Ravizza, USA	78
		21352A, Elderfield, United Kingdom	91
		20317E, Martin, USA	111
		21358A, Houben/Brinkhuis, The Netherlands	405
		21360A, Kawagata, Japan	15
		21363A, Hayward, New Zealand	64
		21369A, Cleaveland/Herbert, USA	59
		21374A, Mertens, Belgium	1
		21198F, Liu/Pagani/Ravelo, USA	189
		21376A, Teagle/Harris, United Kingdom	37
		21381A, Winckler/Anderson, USA	90
		21381A, Pusz/Thunell, USA	63
		20469G, Fantle, USA	14
Total science	2		
Total education:	25		
Total PR:	0		
Total:	27	30	7,437
West Coast Repository:			
		21379A, Coogan, Canada	6
		20932C, Peucker-Ehrenbrink, USA	28
		21408A, Ravizza, USA	113
		21219B, Scott, New Zealand	26
		21438A, Knappertsbush, Switzerland	2

IODP Expedition/ Repository	Visitors	Request Number, Name, Country	Number of Samples
	2	21218A, Norris/Sexton, USA (follow-up)	No samples
	15	Norris, USA (Educational Visit)	No samples
	20	Driscoll, USA (Educational Tour and Sampling Orientation)	No samples
Total science:	2		
Total education:	35		
Total PR:	0		
Total:	37	5	175

DSDP/ODP CORE REDISTRIBUTION PROJECT

The Gulf Coast Repository (GCR) sent nine core shipments to the Kochi Core Center (KCC), and received one core shipment each from the East Coast Repository (ECR) and West Coast Repository (WCR). The WCR sent four core shipments to the KCC and one to the GCR. The ECR sent one core shipment to the Bremen Core Repository (BCR) and one to the GCR, and rearranged its working space to increase packing efficiency for the remainder of the project.

PUBLICATIONS

IODP-USIO REPORTS

FY07 IODP QUARTERLY REPORT

The IODP-USIO report for the fourth quarter of FY07 (July–September 2007) was submitted to NSF and IODP-MI on 30 November 2007.

IODP-USIO FY07 ANNUAL REPORT

Production of the IODP-USIO FY07 Annual Report continued with development, review, and revision.

FY08 ANNUAL PROGRAM PLAN

On 30 November 2007, the USIO submitted to IODP-MI and NSF for review and evaluation a fourth revision of the IODP-USIO FY08 Annual Program Plan for SOC and POC, which incorporated the division of SOC into “operational costs” (SOC Operations), which are to be funded directly from NSF through the USIO Systems Integration Contract and other costs (SOC Nonoperations), which are to be funded through the IODP-MI contract. In this Annual Program Plan, SOC Operations were defined as “that which funds U.S. Scientific Ocean Drilling Vessel (SODV) SOC operations at sea and all costs in support of these operations such as planning, logistics, engineering science support, etc.” The IODP-USIO FY08 Annual Program Plan budget totaled \$49,658,659, with \$4,862,274 in SOC Nonoperations requested from IODP-MI and \$8,135,218 in SOC Operations and \$36,661,167 in POC requested from NSF. This Annual Program Plan consists of requests for SOC Nonoperations and POC costs of non-SODV mobilization activities; SOC Operations costs; IODP Expedition 317 (PEAT Expedition/Juan de Fuca Remedial Cementing), Expedition 318 (Bering Sea Expedition), and Expedition 319 (PEAT Expedition); long-lead time items and the associated costs for expeditions proposed for FY09; and continuing SOC shore-based activities during FY08.

On 7 December 2007, the USIO submitted to NSF an Appendix to the IODP-USIO FY08 Annual Program Plan. This appendix outlines requests related to the IODP-USIO U.S. Systems Integration Contract, which include costs that cover USIO efforts for completion of ODP publications work, education and outreach, and associated management and administrative

support. The FY08 Annual Program Plan Appendix to NSF included a SIC budget totaling \$1,146,368 and also provided POC budget details and SOC budget details divided into SOC Operations and SOC Nonoperations costs.

IODP SCIENTIFIC PUBLICATIONS

Publication	Release Date	DOI Number	Comments
Scientific Prospectus:			
Expedition 317/319 (Pacific Equatorial Age Transect)	Oct 2007	10.2204/iodp.sp.317319.2007	
Expedition 318 (Bering Sea)	Oct 2007	10.2204/iodp.sp.318.2007	
Expedition 315 Addendum (NanTroSEIZE Project Stage 1: Megasplay Riser Pilot)	Nov 2007	10.2204/iodp.sp.315add.2007	Edited and formatted for CDEX
Expedition 316 Addendum (NanTroSEIZE Project Stage 1: Shallow Megasplay and Frontal Thrusts)	Nov 2007	10.2204/iodp.sp.316add.2007	Edited and formatted for CDEX

DISTRIBUTION OF SCIENTIFIC PUBLICATIONS

Publication	Number Distributed
IODP Publications:	
<i>Proceedings of the Integrated Ocean Drilling Program Expedition Report DVDs</i>	72
ODP Publications:	
<i>Proceedings of the Ocean Drilling Program, Initial Reports</i>	3
<i>Proceedings of the Ocean Drilling Program, Scientific Results</i>	2

PROJECTS AND OTHER ACTIVITIES

ODP FINAL TECHNICAL REPORT

The ODP Final Technical Report was completed and submitted to NSF on 30 November 2007. This report provided an overview of the management and organization of ODP and highlighted 20 years of technical and scientific accomplishments. This document is available on the ODP Legacy Web site (www.odplegacy.org).

EDUCATION

DEEP EARTH ACADEMY (FORMERLY JOI LEARNING)

NAME CHANGE

Coincident with the change from Joint Oceanographic Institutions (JOI) to Ocean Leadership, *JOI Learning* changed its name to Deep Earth Academy. A new logo was designed with assistance from visual identity consultants and Ocean Leadership's graphic designer. During November and December 2007, staff updated the Web site and the educational materials needed most immediately.

EDUCATION VISUAL IDENTITY—DEEP EARTH ACADEMY WEB SITE

Deep Earth Academy continued to add to its Web site new materials for teachers, students, and scientists. Pages were added for books/literacy connections for students and the new Activity of the Month feature (www.oceanleadership.org/learning/activityofthemonth/home) developed by School of Rock (SOR) alumni with assistance from S. Cooper (Assistant Education Director, Ocean Leadership). Staff began encouraging participation in interactive bulletin boards. Deep

Earth Academy also debuted its “Ask a Scientist” page to encourage student interaction with scientists on board the *Chikyu* during Expedition 316. Planning began for a new interactive page for children that will focus on the science of ocean drilling and use new Bubba cartoons and images from the *JOIDES Resolution*.

L. Peart (Education Director, Ocean Leadership) sailed on board the *Atlantis* during an expedition that included a cementing operation on the Juan de Fuca Ridge. Peart documented her experiences, including a trip to the seafloor in the *Alvin* submersible, in a new Web page (www.joiscience.org/learning/atlantis) and experimented with ship-to-shore communications to pave the way for future expedition-based communication tools.

DISTRIBUTION OF EDUCATIONAL MATERIALS

During the quarter, Deep Earth Academy distributed 20,325 posters and 853 DVDs at conferences, outreach activities, and in response to requests received through the Deep Earth Academy Web site. Materials were provided to schools attended by all children of Ocean Leadership staff and distributed at the following meetings.

Conference/Meeting	Date	Location
Colorado Council for Teachers of Mathematics (CCTM)	5 October 2007	Denver, Colorado
Geological Society of America (GSA) Annual Meeting	28–31 October 2007	Denver, Colorado
Centers for Ocean Science Education Excellence (COSEE) Workshops at Coastal Carolina University	3 November 2007	Conway, South Carolina and Savannah, Georgia
North American Association for Environmental Education (NAAEE) 2007 Conference	14–17 November 2007	Virginia Beach, Virginia
Conference for the Advancement of Science Teachers (CAST)	15 and 16 November 2007	Austin, Texas
Jackson County Schools Career Day	16 November 2007	Jefferson, Georgia
American Geophysical Union (AGU) Fall Meeting	10–14 December 2007	San Francisco, California

MATERIALS DEVELOPMENT AND EDUCATION PROGRAMS

TEACHER WORKSHOPS*

Conference/Meeting	Date	Location
National Association of Geosciences Teachers (NAGT) New England Section Annual Meeting	13 October 2007	Manchester, Connecticut
National Science Teachers Association (NSTA) Conference on Science Education—Share-a-thon	15–19 October 2007	Detroit, Michigan
2007 West Virginia Association of Gifted and Talented (WVAGT) conference	19 October 2007	Snowshoe, West Virginia
University of Massachusetts at Amherst Science and Engineering Saturday Seminar: Paleomagnetic Signature of Deep-Sea Sediments	3 November 2007	Amherst, Massachusetts
Tennessee Science Teachers Association (TSTA) Conference	15–17 November 2007	Nashville, Tennessee
39th Annual North Carolina Science Teachers Association (NCSTA) Professional Development Institute	14–16 November 2007	Greensboro, North Carolina

*Teacher workshops conducted by representatives of the Deep Earth Academy.

TEACHER-IN-RESIDENCE PROGRAM

As the inaugural Teacher Fellow, L. Pacunas communicated with teachers, organized Deep Earth Academy conference presence, reviewed activities for pedagogical appropriateness, and implemented creative outreach ideas. Though funded through the U.S. Science Support Program (USSSP), Pacunas works on both USSSP- and IODP-funded projects, including development of new educational products for use by teachers and students and planning for School of Rock 2008.

MATERIALS DEVELOPMENT

S. Cooper worked with Teacher-at-Sea R. Wilson (Mathematics Teacher, Barone Middle School, Meeker, Colorado) and M. Niemitz (independent contractor) to develop the Sea90E educational poster. This poster uses content and graphics from the expedition to teach middle school students about site surveys, geography, and the tools of exploration.

Deep Earth Academy also developed a learning activity titled “A Bit of Engineering” for the American Geophysical Institute (AGI) Earth Science Week Activity Calendar for the 2007–2008 school year (www.earthsciweek.org/calendar/0708files/March2008.pdf). Featured in March 2008, the Deep Earth Academy activity focuses students in grades 5–9 on the process of coring and what tools might be the most useful and efficient. This calendar was mailed out to approximately 16,000 teachers and other educators during the month of October 2007.

DIVERSITY SUPPORT ACTIVITIES

HISTORICALLY BLACK COLLEGES AND UNIVERSITIES FELLOWSHIP

In November 2007, the Joint Outreach, Education, Public Relations Team (JREPORT) reviewed and approved an application from N. Abdul, a graduate student at Savannah State University, for an additional semester of Fellowship funding. Release of funding is anticipated for early January 2008. Abdul has been working with C. Pride (Assistant Professor of Marine Sciences, Savannah State University) using samples from ODP Leg 175 (Site 1084) to examine how delivery of nutrients to the productive Benguela Current System has varied over time.

In December 2007, the second Fellowship payment of \$7,500 was released to D. Godfrey, an undergraduate student at Huston-Tillotson University in Austin, Texas. Godfrey is continuing her work with K. Ellins (Program Manager, University of Texas Institute for Geophysics [UTIG]) in implementing the “Earth Science Revolution Workshops,” a professional development series for teachers and teacher mentors.

OUTREACH

PUBLIC AFFAIRS

USIO communications and outreach activities this quarter focused on opportunities to publicize scientific ocean drilling through related publications and events with the goal of raising public and media awareness.

Highlights include the following events:

- Successful submission and publication of a Letter to the Editor of *Nature*, correcting a reporting error concerning USIO Phase 1 expeditions.
- Development of collaborative plans for USIO exhibit presence at the IODP booth at the 2007 AGU Fall Meeting.
- Production and staffing of a 200-square-foot booth exhibit at the 2007 GSA Annual Meeting, held 28–31 October 2007 in Denver, Colorado. Exhibit highlights included a photomicrograph laminate floor and a 42-inch widescreen plasma display showing an Ocean Leadership slide show.

- Production of a full-color double-gatefold brochure including information about the importance and relevance of scientific ocean drilling and explaining the magnitude of the *JOIDES Resolution* conversion.

PUBLIC RELATIONS MATERIALS

USIO MEDIA ADVISORIES/NEWS RELEASES

There were no media advisories or news releases distributed this quarter.

ARTICLES AUTHORED BY USIO STAFF

Science and other articles authored by USIO staff published during this quarter include the following. Other Program-related science articles are available online through the ocean drilling citation database (iodp.tamu.edu/publications/citations/database.html) and the IODP Expedition-related bibliography (iodp.tamu.edu/publications/citations.html).

- **Bohlen, S.**, 2007. Ocean-drilling vessel should soon be afloat again. *Nature (London, U. K.)*, 449(7162):535. doi:10.1038/449535d
- Sluijs, A., Brinkhuis, H., Schouten, S., Bohaty, S.M., **John, C.M.**, Zachos, J.C., Reichart, G.-J., Sinninghe Damsté, J.S., Crouch, E.M., and Dickens, G.R., 2007. Environmental precursors to rapid light carbon injection at the Palaeocene/Eocene boundary. *Nature (London, U. K.)*, 450(7173):1218–1221. doi:10.1038/nature06400

NEWS ARTICLES, PROGRAMS, MEDIA CITATIONS, OR PUBLIC COMMENTARY

News articles, programs, media citations, or public commentary published during this quarter resulting from IODP media and public awareness efforts included the following. See the “IODP in the news” Web page (www.iodp-usio.org/Newsroom/news.html) for other articles that raise the profile of the Program.

- *Agence France-Presse*, 2007. Seabed project reveals earthquake, tsunami clues: scientists. *Agence France-Presse*, 22 November 2007. http://afp.google.com/article/ALeqM5jCvzZIr_-VxYNmY92p1R-Vzf9G1A
- *Associated Press*, 2007/ Six-nation deep sea drilling in Japan successfully collects quake data. *International Herald Tribune*, 17 November 2007. http://www.ihf.com/articles/ap/2007/11/17/asia/AS-GEN-Japan-Deep-Sea-Probe.php?WT.mc_id=rssap_asia
- Cyranoski, D., 2007. *Chikyu*'s first mission complete. *Nature (London, U. K.)*, 19 November 2007. doi:10.1038/news.2007.267
- *Discover Magazine*, 2007. The 6 most important experiments in the world. *Discover Magazine*, 14 November 2007. <http://discovermagazine.com/2007/dec/the-6-most-important-experiments-in-the-world>
- *Newcastle Herald*, 2007. Ocean's 12 know the drill. *Newcastle Herald [Australia]*, 13 November 2007.
- Peden, T., 2007. PSU professor embarks on Japan earthquake trip. *The Daily Collegian online*, 26 October 2007. http://www.collegian.psu.edu/archive/2007/10/26/psu_professor_embarks_on_japan.aspx

- *Science Centric*, 2007. Deepest ever scientific ocean drilling could hold key to understanding earthquakes. *Science Centric*, 2 October 2007. <http://www.sciencecentric.com/news/07100202.htm>
- Weiss, C., 2007. Geologist joins international study of earthquakes. *UConn Advance*, 5 November 2007. <http://advance.uconn.edu/2007/071105/07110502.htm>

MUSEUM PARTNERSHIPS

Deep Earth Academy is moving forward on support for a proposal from the Exploratorium in San Francisco to place a scientist-reporter on board during the Bering Sea Expedition who will contribute to their NSF International Polar Year “Ice Stories” project and Web site. During this quarter, L. Peart met with staff from both the Ice Stories exhibit at the Exploratorium and the Bering Sea Expedition Co-Chief Scientists and Staff Scientist to plan the outreach related to this program. Deep Earth Academy will provide funding for the graduate student scientist-reporter’s expenses and travel, while the Exploratorium will provide training.

Deep Earth Academy submitted a proposal for a session on Corewall technology at the October 2008 Association of Science and Technology Centers (ASTC) conference in Philadelphia, Pennsylvania. If accepted, Ocean Leadership staff including S. Higgins (Associate Director of Ocean Drilling Programs) and S. Cooper will collaborate with personnel from the Science Museum of Minnesota, the National Center for Earth Surface Dynamics, and the Electronic Visualization Laboratory at the University of Illinois at Chicago to present educational uses for Corewall in museum settings.

USIO INTERACTIONS WITH IODP-MI AND OTHER IMPLEMENTING ORGANIZATIONS

INTERACTIONS

DOWNHOLE MEASUREMENT AND APCT3 IMPLEMENTATION

The USIO loaned downhole measurement tools to CDEX for use during Expeditions 314–316, and the USIO and CDEX continued activities on the joint implementation of the APCT3 (see “Status of Equipment” and “Projects and Other Activities” in “Technical, Engineering, and Science Support” for more information).

USIO SERVICES ON BOARD THE *CHIKYU*

In October 2007, the USIO and CDEX reached agreement for certain work to be performed for CDEX by TAMU during FY08 CDEX expeditions. Statements of work were developed that outlined the provision of the following USIO services on the *Chikyu*: (1) Formation Temperature Measurement Services during Expeditions 315 and 316 and (2) Publication Specialist Services during Expeditions 314–316. Deliverables outlined in the statements of work were later incorporated into the USIO’s revised FY08 Annual Program Plan submitted in November 2007, and provision of these services commenced during the quarter.

In late November 2007, CDEX determined that they would be unable to obtain full coring engineer services through their regular subcontractor during a period in December 2007 when coring was not originally scheduled. On short notice, CDEX and the USIO negotiated an arrangement for the USIO to provide an engineer to serve as “assistant coring technician” on the *Chikyu* from 5 to 19 December 2007, during IODP Expedition 315.

Representatives of IODP-MI (H.C. Larsen, Vice President of Science Planning), CDEX (S. Kuramoto, Group Leader, and K.T. Moe, Expedition Project Manager), and the USIO (A. Miller, Manager of Publication Services, TAMU) met in December 2007 to discuss implementation issues related to the publications Statement of Work.

MEETINGS

SCIENCE STEERING AND EVALUATION PANEL MEETING

The Science Steering and Evaluation Panel (SSEP) Meeting was held 12–15 November in Bordeaux, France (see “Appendix C” for list of USIO attendees). Twenty-two proposals were reviewed and a variety of reports and issues were discussed, including the draft Science Advisory Structure Executive Committee (SASEC) implementation plan. J. Miller (Staff Scientist, TAMU) gave the USIO presentation.

APPENDIX A: FINANCE REPORT

Please contact info@oceanleadership.org for hard copies of financial pages.

APPENDIX B: CONFERENCE AND MEETING SCHEDULE*

Conference/Meeting	Date	Location
Ocean Leadership and Integrated Ocean Drilling Program Management International (IODP-MI) Co-sponsored Workshop: Drilling to Decipher Long-term Sea-level Changes and Effects	8–10 October 2007	Salt Lake City, Utah
2007 Geological Society of America (GSA) Annual Meeting	28–31 October 2007	Denver, Colorado
Science Steering and Evaluation Panel (SSEP) Meeting	12–15 November 2007	Bordeaux, France
Conference for the Advancement of Science Teachers (CAST)	15 and 16 November 2007	Austin, Texas
American Geophysical Union (AGU) Fall Meeting	10–14 December 2007	San Francisco, California
Expedition 323 (Wilkes Land) Precruise Meeting	17 and 18 December 2007	College Station, Texas

*Implementing organization meetings, IODP-MI task force meetings, Science Advisory Structure (SAS) panel meetings, Program-sponsored conferences, and scientific and educational conferences at which the USIO had a booth or exhibit.

APPENDIX C: TRAVEL*

Purpose	Dates	Location	Institution: Personnel
Basic Dangerous Goods Training By Air	30 September–2 October 2007	Houston, Texas	TAMU: L. Crowder, C. Peng
U.S. Scientific Ocean Drilling Vessel (SODV) Conversion Management Team (CMT) Meeting** and USIO operations-related discussions	1–3 October 2007	College Station, Texas	Ocean Leadership: D. Divins LDEO: D. Goldberg
Sea Survival and Helicopter Egress Training	2–4 October 2007	Galveston, Texas	TAMU: B. Aduddell, D. Ferrell, M. Meiring
Ocean Leadership and Integrated Ocean Drilling Program Management International (IODP-MI) Co-sponsored Workshop: Drilling to Decipher Long-term Sea-level Changes and Effects	8–10 October 2007	Salt Lake City, Utah and Green River, Utah	TAMU: C. John
Gartner Symposium and ITxpo 2007	7–12 October 2007	Orlando, Florida	TAMU: D. Becker
Reporting Work; Budget Meeting; Sea Survival and Helicopter Egress Training	10–25 October 2007	College Station, Texas and Galveston, Texas	TAMU: G. Lowe
Hazardous Materials Training	14–20 October 2007	Portland, Oregon	TAMU: P. Kanneberg
Standards of Training, Certification and Watchkeeping (STCW) 95 Advanced Training Course	14–27 October 2007	College Station, Texas	TAMU: R. Davis
Biometrics Capture for Immigration Visa	19 October 2007	Houston, Texas	TAMU: L. Chen
Colorado Software Summit 2007	20–26 October 2007	Keystone, Colorado	TAMU: D. Fackler, D. Hornbacher, S. Zeliadt
Global Knowledge TCP/IP Training Seminar	21–27 October 2007	Seattle, Washington	TAMU: M. Petersen
USIO Management Team Meeting (JASMT)	23 and 24 October 2007	Palisades, New York	Ocean Leadership: D. Divins, S. Higgins TAMU: J. Baldauf, J. Fox, Ann Klaus
Visa Interview	24 and 25 October 2007	Johannesburg, South Africa	TAMU: J. Kotze

Purpose	Dates	Location	Institution: Personnel
Haz/Mat Ocean International Maritime Dangerous Goods (IMDG) Training	24 and 25 October 2007	Houston, Texas	TAMU: R. Mitchell
Geological Society of America (GSA) Annual Meeting	28–31 October 2007	Denver, Colorado	Ocean Leadership: L. Pacunas, L. Peart
Global Knowledge TCP/IP Training Seminar	28 October–3 November 2007	New York City, New York	TAMU: J. Cordray
Dangerous Goods International (DGI) Dangerous Goods Transportation Training	29–31 October 2007	Dallas, Texas	TAMU: L. Crowder, C. Peng
Publication Specialist Services during Center for Deep Earth Exploration (CDEX) Expeditions 314 and 315 (<i>Chikyu</i>)	30 October–5 December 2007	Nankai Trough, Kumano-nada, Offshore Kii peninsula, Japan	TAMU: D. Partain
Microscope Cleaning, Adjustment, and Maintenance Training	31 October–4 November 2007	Chicago, Illinois	TAMU: W. Crawford
STCW and H2S (HazMat) Training Course	2–11 November 2007	College Station, Texas	TAMU: J. Kotze, H. Paul
ICDP Logging Training Course	3 November 2007	Windischeschenbach, Germany	LDEO: A. Slagle
Logging Consortium	4 and 5 November 2007	Leicester, United Kingdom	LDEO: D. Goldberg, M. Reagan
Multi-Modal Dangerous Goods Transportation Seminar	4–9 November 2007	Dallas, Texas	TAMU: E. Dilliard
Global Knowledge TCP/IP Training Seminar	4–10 November 2007	Boston, Massachusetts	TAMU: T. Bloxom
2007 Offshore Communications Annual Conference	6–8 November 2007	Houston, Texas	TAMU: D. Becker, C. Flores, P. Gates
Science Steering and Evaluation Panel (SSEP) Meeting	12–15 November 2007	Arcachon, France	TAMU: C. John, J. Miller
Drill Pipe Inspection S-135 Deep Sea Drilling Project (DSDP) Pipe	11 November 2007	Houston, Texas	TAMU: P. Thompson
Formation Temperature Measurement Services during CDEX Expedition 315 (<i>Chikyu</i>)	13 November–9 December 2007	Nankai Trough, Kumano-nada, Offshore Kii peninsula, Japan	TAMU: D. Ferrell
Conference for the Advancement of Science Teachers (CAST)	15 and 16 November 2007	Austin, Texas	Ocean Leadership: L. Pacunas [†] TAMU: C. Peng, B. Slone
American Society of Safety Engineers Safety Meeting	19 November 2007	Austin, Texas	TAMU: D. Johnson
SODV CMT** and National Science Foundation (NSF) Meeting	19 and 20 November 2007	College Station, Texas	Ocean Leadership: D. Divins
Information Technology (IT) Integration with SODV Operations	23 November–2 December 2007	Singapore	TAMU: D. Becker, C. Flores
SODV Shipyard Meeting**	28 November–4 December 2007	Singapore	Ocean Leadership: D. Divins
Learning Tree Course 132: SQL Server 2005 Database Administration	2–7 December 2007	Alexandria, Virginia	TAMU: L. Westover

Purpose	Dates	Location	Institution: Personnel
Formation Temperature Measurement Services during CDEX Expedition 315 (<i>Chikyu</i>)	3–19 December 2007	Nankai Trough, Kumano-nada, Offshore Kii Peninsula, Japan	TAMU: B. Aduddell
Commvault Training	9–15 December 2007	Oceanport, New Jersey	TAMU: G. Banta, M. Hodge, M. Nobles, A. Trefethen
Publication Specialist Services during CDEX Expeditions 315 and 316 (<i>Chikyu</i>)	10 December 2007–7 January 2008	Nankai Trough, Kumano-nada, Offshore Kii Peninsula, Japan	TAMU: G. Lowe
American Geophysical Union (AGU) Fall Meeting 2007	10–14 December 2007	San Francisco, California	Ocean Leadership: S. Cavros, J. Corsiglia, D. Divins, J. Farver, S. Higgins, L. Peart, K. Watanabe; LDEO: A. Cook, D. Goldberg, G. Guerin, G. Iturrino, M. Reagan; TAMU: C. Bennight, P. Blum, J. Firth, P. Foster, J. Fox, J. Geldmacher, C. John, Adam Klaus, M. Malone, Angie Miller, C. Zarikian
Haz/Mat Ground Department of Transportation (DOT) Training	13–14 December 2007	Houston, Texas	TAMU: R. Mitchell
Wilkes Land Expedition (Exp. 323) Precruise Meeting	16–18 December 2007	College Station, Texas	LDEO: T. Williams
Solidworks Cosmos Training	17–20 December 2007	Santa Monica, California	TAMU: M. Butler
Formation Temperature Measurement Services during CDEX Expedition 316 (<i>Chikyu</i>)	19 December 2007–5 February 2008	Nankai Trough, Kumano-nada, Offshore Kii Peninsula, Japan	TAMU: M. Meiring

*Travel associated with meetings, conferences, port call work, and nonroutine sailing activities.

**USIO funded this trip for USIO representative(s) to attend an SODV Project meeting.

†Travel paid from another source.

APPENDIX D: IODP-USIO QUARTERLY REPORT DISTRIBUTION LIST

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