INTEGRATED OCEAN DRILLING PROGRAM
United States Implementing Organization

Consortium for Ocean Leadership, Inc.
Lamont-Doherty Earth Observatory of Columbia University
Texas A&M University

FY11 ANNUAL PROGRAM PLAN to IODP-MI

For Time Period
1 October 2010 to 30 September 2011

Amount Proposed FY11: $67,295,548 (SOC and POC)
Amount Proposed FY11: $4,078,906 (SOC)
Amount Proposed FY11: $63,216,642 (POC)

Integrated Ocean Drilling Program
United States Implementing Organization

3 August 2010

Respectfully Submitted to:
IODP Management International, Inc.

David L. Divins
Director, Ocean Drilling Programs
Consortium for Ocean Leadership, Inc.
Washington, D.C. 20005

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1. INTRODUCTION

1.1. ANNUAL PROGRAM PLAN OVERVIEW

The USIO FY11 Annual Program Plan to IODP-MI defines the U.S. Implementing Organization (USIO) scope of work for Integrated Ocean Drilling Program (IODP) activities and deliverables for the FY11 fiscal year. It is based on (1) the current mission forecast provided on 12 March 2010 for the USIO by the U.S. National Science Foundation (NSF) and (2) the USIO operations schedule that was approved by the Operations Task Force (OTF) and Science Planning Committee (SPC) in January 2010. The USIO recognizes that the complex nature of IODP operations will require Annual Program Plans spanning operational years to establish priorities and to allow the procurement of long–lead time equipment and services.

In FY04, the Consortium for Ocean Leadership, Inc. (Ocean Leadership), then known as Joint Oceanographic Institutions, established subcontracts with the College of Geosciences at Texas A&M University (TAMU) through the Texas A&M Research Foundation (TAMRF) and with the Lamont-Doherty Earth Observatory (LDEO) of Columbia University, formally establishing the USIO.[1] In FY05, Ocean Leadership established a contract with IODP-MI for the science operating costs (SOC) of the USIO, which complemented the contract with NSF for platform operating costs (POC). Under guidance from NSF and IODP-MI, the USIO FY11 Annual Program Plan to IODP-MI was developed in consultation with the USIO subcontractors for inclusion in the IODP FY11 Annual Program Plan.

IODP-MI, with input from IODP funding agencies, provided guidance and instruction to the USIO on the preparation of the USIO contribution to the IODP FY11 Annual Program Plan. The USIO FY11 Annual Program Plan to IODP-MI includes a discussion of the goals of the USIO, all responsibilities and deliverables, the operational schedule, definitions of projects, and the USIO organizational structure for all science operations and platform operations activities. Also included are the required budgets that incorporate funding allocations from IODP-MI for science operations and funding allocations from NSF for platform operations. These budget requests relate to the contractual relationships and fiscal reporting structure of the USIO as presented in quarterly reports delivered by the USIO.

In addition to the institutional summary provided in the Executive Summary, USIO tasks and budgets specific to IODP-MI–supported activities are addressed in Sections 5–12 of this Annual Program Plan. Section 2 provides budget summary tables, Section 3 describes the organizational structure of the USIO as it relates to all USIO activities, and Section 4 describes scheduled expedition operations.

On behalf of the USIO and as outlined in this Annual Program Plan, TAMRF has contracted with Overseas Drilling Limited (ODL) for the services of the *RV JOIDES Resolution*. In support of the drilling vessel and with the approval of NSF and IODP-MI, the USIO will provide an array of science, operations, logging, engineering, information technology, technical, and publication services; laboratory facilities; core repositories; and administrative services necessary to support IODP. In addition, LDEO has contracted with Schlumberger Technology Corporation for the provision of downhole logging equipment and engineering support.

[1] In this document, references to TAMU include TAMRF.

1.2. USIO FY11 ACTIVITIES

1.2.1. Summary of FY11 USIO Scope

The scope of activities associated with initial planning and preparation of IODP expeditions is similar to early IODP activities in terms of deliverables, challenges, and risks. In addition, the USIO will also carry out the postexpedition activities related to IODP expeditions and ongoing operational tasks (e.g., completing reports and legacy documentation), completing work for all the implementing organizations (IOs) (e.g., producing scientific publications), conducting long-lead planning work in preparation for expeditions scheduled for future fiscal years, and providing all necessary environmental assessments for IODP expeditions conducted by the USIO.

1.3. USIO BUDGET DEFINITIONS

1.3.1. FY11 USIO Budget Assumptions

The USIO has provided our best-effort estimate of predicted FY11 costs in this plan. If additional funds are identified or cost avoidances gained during the fiscal year, the USIO may use them to deploy logging-while-drilling (LWD)/logging-while-coring (LWC) tools during the Costa Rica Seismogenesis Project (CRISP) expedition; purchase elevator handling equipment for use with larger diameter pipe; or purchase data management system equipment, drilling or science supplies, or high-priority capital replacement items in support of USIO deliverables. In addition, assumptions about the operations schedule are outlined in the **"Expedition Operations"** chapter.

Fuel price volatility is a major risk factor for completion of the scheduled operations. Assumptions were made using the best available data to determine a prudent estimate for FY11 fuel costs; however, market conditions are subject to fluctuations that may result in a need for supplemental funding during the period of operations.

1.3.2. USIO Budget Structure

The USIO budget request is partitioned into two programmatic categories: (1) USIO science operating costs (SOC) in a budget submitted to IODP-MI for approval, and (2) USIO Systems Integration Contract (SIC) costs in a budget submitted to NSF for approval. The SIC budget includes all platform operating costs (POC) and other Program integration costs (OPIC) in support of maintaining U.S. capability for continued scientific ocean drilling in IODP.

The USIO cost breakdown for FY11 is a request to IODP-MI for $4,078,906 in SOC expenses (submitted in the FY11 Annual Program Plan to IODP-MI) and a request to NSF for $63,216,642 in POC expenses for USIO operations.

2. FY11 USIO BUDGET SUMMARY TABLES

2.1. INTRODUCTION

The budget summaries and detailed budgets in this section describe the overall USIO FY11 SOC/POC requests to IODP-MI and NSF. This information is given to provide a framework for interpreting fiscal data in quarterly reports delivered by the USIO.

In **Section 2.2. FY11 USIO SOC/POC WBE Budget Summary**, the line-item total requested for each work breakdown element (WBE) is defined as the total of both the direct and indirect costs for that element. These costs are then separated out into total direct costs and indirect costs and administrative fees in summary totals that add up to the "grand total" for SOC and POC. Ocean Leadership and LDEO calculate indirect costs on a percentage of the direct costs using formulas described in the "Budget" subsections of each WBE section of this Annual Program Plan. The TAMU budget is structured with a single administrative fee that can be found in the Management and Administration element budget.

Section 2.3. FY11 USIO SOC/POC WBE Budget Detail provides an integrated view of all the budget requests detailed in the WBE sections of the IODP-USIO FY11 Annual Program Plan to IODP-MI. The detailed budget justification for these requests can be found in Sections 5–12 of this Annual Program Plan.

Section 2.4. USIO Budget Three-Year View provides a comparison of FY11 budget requests to FY09 and FY10 costs, showing costs broken down by WBE and expense category.

2.2. FY11 USIO SOC/POC WBE BUDGET SUMMARY

Element	SOC	POC	Total
Management and Administration	645,015	3,977,165	4,622,180
Technical, Engineering, and Science Support	447,602	57,027,645	57,475,247
Engineering Development	96,568	0	96,568
Core Curation	350,225	110,075	460,300
Data Management	986,206	2,007,757	2,993,963
Publications	1,459,000	94,000	1,553,000
Education	0	0	0
Outreach	94,290	0	94,290
Total FY11 USIO SOC/POC Budget	**$4,078,906**	**$63,216,642**	**$67,295,548**

Notes: Ocean Leadership Indirect Costs are included in the Management and Administration (M&A) and Outreach elements. LDEO Indirect Costs are included in the M&A; Technical, Engineering, and Science Support; and Data Management elements. The TAMU Administrative Fee is included in the M&A element.

Element	SOC	POC	Total
Total Direct Costs	3,553,031	61,701,282	65,254,313
Indirect Costs and Administrative Fees	525,875	1,515,360	2,041,235
Grand Total FY11 USIO SOC/POC Budget	**$4,078,906**	**$63,216,642**	**$67,295,548**

2.3. FY11 USIO SOC/POC WBE BUDGET DETAIL

Element/Expense Category	SOC	POC	Total
Management and Administration			
Salaries and Fringes	350,735	2,614,570	2,965,305
Travel	34,725	259,626	294,351
Supplies	7,750	49,800	57,550
Shipping	2,270	8,930	11,200
Communication	10,736	46,338	57,074
Contractual Services	6,000	30,000	36,000
Equipment	50	950	1,000
Other Direct Costs	5,735	124,765	130,500
Total Direct Costs	418,001	3,134,979	3,552,980
Modified Total Direct Costs (if applicable)	72,401	452,587	524,988
Indirect Costs or Administrative Fees	227,014	842,186	1,069,200
Total Management and Administration	**$645,015**	**$3,977,165**	**$4,622,180**
Technical, Engineering, and Science Support			
Salaries and Fringes	231,197	6,542,011	6,773,208
Travel	57,901	763,387	821,288
Supplies	2,000	2,304,202	2,306,202
Shipping	4,397	704,340	708,737
Communication	1,905	313,395	315,300
Contractual Services	0	3,850,292	3,850,292
Equipment	0	1,166,350	1,166,350
Other Direct Costs	0	40,929,795	40,929,795
Day Rate	*0*	*29,673,500*	29,673,500
Fuel and Lubricants	*0*	*5,910,000*	5,910,000
Per Diem	*0*	*506,346*	506,346
Port Calls	*0*	*1,767,000*	1,767,000
Insurance	*0*	*1,387,364*	1,387,364
Travel—ODL	*0*	*595,000*	595,000
Other	*0*	*1,090,585*	1,090,585
Total Direct Costs	297,400	56,573,772	56,871,172
Modified Total Direct Costs (if applicable)	283,400	856,365	1,139,765
Indirect Costs or Administrative Fees	150,202	453,873	604,075
Total Technical, Engineering, and Science Support	**$447,602**	**$57,027,645**	**$57,475,247**
Engineering Development			
Salaries and Fringes	50,269	0	50,269
Travel	7,500	0	7,500
Supplies	2,000	0	2,000
Shipping	2,500	0	2,500
Communication	500	0	500
Contractual Services	0	0	0
Equipment	0	0	0
Other Direct Costs	347	0	347
Total Direct Costs	63,116	0	63,116
Modified Total Direct Costs (if applicable)	0	0	0
Indirect Costs or Administrative Fees	33,452	0	33,452
Total Engineering Development	**$96,568**	**$0**	**$96,568**

Note: Other Direct Costs subcategories are shown on the detailed work breakdown element budgets.
(Continued on next two pages.)

FY11 USIO SOC/POC WBE BUDGET DETAIL (CONTINUED)

Element/Expense Category	SOC	POC	Total
Core Curation			
Salaries and Fringes	276,125	85,375	361,500
Travel	33,000	11,000	44,000
Supplies	15,000	5,000	20,000
Shipping	18,750	6,250	25,000
Communication	2,625	875	3,500
Contractual Services	0	0	0
Equipment	0	0	0
Other Direct Costs	4,725	1,575	6,300
Total Direct Costs	350,225	110,075	460,300
Modified Total Direct Costs (if applicable)	0	0	0
Indirect Costs or Administrative Fees	0	0	0
Total Core Curation	**$350,225**	**$110,075**	**$460,300**
Data Management			
Salaries and Fringes	642,437	1,219,983	1,862,420
Travel	25,390	74,688	100,078
Supplies	24,640	50,460	75,100
Shipping	1,165	1,835	3,000
Communication	7,940	20,760	28,700
Contractual Services	0	0	0
Equipment	44,850	114,150	159,000
Other Direct Costs	146,890	306,580	453,470
Total Direct Costs	893,312	1,788,456	2,681,768
Modified Total Direct Costs (if applicable)	175,272	413,776	589,048
Indirect Costs or Administrative Fees	92,894	219,301	312,195
Total Data Management	**$986,206**	**$2,007,757**	**$2,993,963**
Publications			
Salaries and Fringes	1,323,000	64,000	1,387,000
Travel	26,000	30,000	56,000
Supplies	38,000	0	38,000
Shipping	21,000	0	21,000
Communication	8,000	0	8,000
Contractual Services	0	0	0
Equipment	0	0	0
Other Direct Costs	43,000	0	43,000
Total Direct Costs	1,459,000	94,000	1,553,000
Modified Total Direct Costs (if applicable)	0	0	0
Indirect Costs or Administrative Fees	0	0	0
Total Publications	**$1,459,000**	**$94,000**	**$1,553,000**

(Continued on next page.)

FY11 USIO SOC/POC WBE BUDGET DETAIL (CONTINUED)

Element/Expense Category	SOC	POC	Total
Education			
Salaries and Fringes	0	0	0
Travel	0	0	0
Supplies	0	0	0
Shipping	0	0	0
Communication	0	0	0
Contractual Services	0	0	0
Equipment	0	0	0
Other Direct Costs	0	0	0
Total Direct Costs	0	0	0
Modified Total Direct Costs (if applicable)	0	0	0
Indirect Costs or Administrative Fees	0	0	0
Total Education	**$0**	**$0**	**$0**
Outreach			
Salaries and Fringes	30,545	0	30,545
Travel	10,000	0	10,000
Supplies	6,375	0	6,375
Shipping	1,070	0	1,070
Communication	987	0	987
Contractual Services	23,000	0	23,000
Equipment	0	0	0
Other Direct Costs	0	0	0
Total Direct Costs	71,977	0	71,977
Modified Total Direct Costs (if applicable)	0	0	0
Indirect Costs or Administrative Fees	22,313	0	22,313
Total Outreach	**$94,290**	**$0**	**$94,290**
Grand Total Direct Costs	3,553,031	61,701,282	65,254,313
Grand Total Indirect Costs/Administrative Fee	525,875	1,515,360	2,041,235
TOTAL FY11 SOC/POC BUDGET	**$4,078,906**	**$63,216,642**	**$67,295,548**

2.4. USIO BUDGET THREE-YEAR VIEW

Work Breakdown Element	Expense Category	FY09 Breakdown				FY10 Breakdown				FY11 Breakdown			
		Budget	%	POC	SOC	Budget	%	POC	SOC	Budget	%	POC	SOC
Management and Administration	Salaries and Fringe	2,301,285	86.39%	90.03%	9.97%	2,939,153	83.56%	88.49%	11.51%	2,965,305	83.46%	88.17%	11.83%
	Travel	153,152	5.75%	81.96%	18.04%	287,605	8.18%	85.78%	14.22%	294,351	8.28%	88.20%	11.80%
	Other Direct Costs	209,481	7.86%	92.16%	7.84%	290,600	8.26%	89.01%	10.99%	293,324	8.26%	88.91%	11.09%
	Subtotal	$2,663,918	100.00%	89.74%	10.26%	$3,517,358	100.00%	88.31%	11.69%	$3,552,980	100.00%	88.24%	11.76%
Technical, Engineering, and Science Services	Salaries and Fringe	2,485,413	6.04%	92.11%	0.48%	6,507,292	11.49%	96.87%	3.13%	6,773,208	11.91%	96.59%	3.41%
	Day Rate	27,313,301	66.43%	100%	0%	29,637,170	52.33%	100.00%	0.00%	29,673,500	52.18%	100.00%	0.00%
	Contractual Services	1,299,984	3.16%	99.96%	0.04%	3,744,292	6.61%	100.00%	0.00%	3,850,292	6.77%	100.00%	0.00%
	Supplies	1,405,261	3.42%	99.92%	0.08%	2,594,675	4.58%	99.81%	0.19%	2,306,202	4.06%	99.91%	0.09%
	Other Direct Costs	8,614,710	20.95%	99.73%	0.27%	14,152,545	24.99%	99.87%	0.13%	14,267,970	25.09%	99.55%	0.45%
	Subtotal	$41,118,669	100.00%	99.46%	0.54%	$56,635,974	100.00%	99.60%	0.40%	$56,871,172	100.00%	99.48%	0.52%
Engineering Development	Salaries and Fringe	0	0.00%	0%	0%	0	0.00%	0.00%	0.00%	50,269	79.65%	0.00%	100.00%
	Other Direct Costs	0	0.00%	0%	0%	0	0.00%	0.00%	0.00%	12,847	20.35%	0.00%	100.00%
	Subtotal	$0	0.00%	0.00%	0.00%	$0	0.00%	0.00%	0.00%	$63,116	100.00%	0.00%	100.00%
Core Curation	Salaries and Fringe	291,949	65.99%	0.00%	100.00%	393,500	69.67%	27.19%	72.81%	361,500	78.54%	23.62%	76.38%
	Other Direct Costs	150,458	34.01%	0.00%	100.00%	171,327	30.33%	14.79%	85.21%	98,800	21.46%	25.00%	75.00%
	Subtotal	$442,407	100.00%	0.00%	100.00%	$564,827	100.00%	23.43%	76.57%	$460,300	100.00%	23.91%	76.09%
Data Management	Salaries and Fringe	1,145,858	61.01%	22.81%	38.20%	1,764,394	63.07%	65.97%	34.03%	1,862,420	69.45%	65.51%	34.49%
	Other Direct Costs	732,155	38.99%	16.15%	22.83%	1,033,114	36.93%	64.63%	35.37%	819,348	30.55%	69.38%	30.62%
	Subtotal	$1,878,013	100.00%	38.96%	61.04%	$2,797,508	100.00%	65.48%	34.52%	$2,681,768	100.00%	66.69%	33.31%
Publications	Salaries and Fringe	1,026,314	94.68%	0.32%	94.36%	1,350,500	88.38%	4.81%	95.19%	1,387,000	89.31%	4.61%	95.39%
	Other Direct Costs	57,668	5.32%	0.53%	4.79%	177,613	11.62%	10.98%	89.02%	166,000	10.69%	18.07%	81.93%
	Subtotal	$1,083,982	100.00%	0.85%	99.15%	$1,528,113	100.00%	5.53%	94.47%	$1,553,000	100.00%	6.05%	93.95%
Education	Salaries and Fringe	0	0.00%	0.00%	0.00%	0	0.00%	0.00%	0.00%	0	0.00%	0.00%	0.00%
	Other Direct Costs	0	0.00%	0.00%	0.00%	0	0.00%	0.00%	0.00%	0	0.00%	0.00%	0.00%
	Subtotal	$0	0.00%	0.00%	0.00%	$0	0.00%	0.00%	0.00%	$0	0.00%	0.00%	0.00%
Outreach	Salaries and Fringe	17,597	100.00%	0.00%	100.00%	29,774	69.61%	0.00%	100.00%	30,545	42.44%	0.00%	100.00%
	Other Direct Costs	0	0.00%	0.00%	0.00%	13,000	30.39%	0.00%	100.00%	41,432	57.56%	0.00%	100.00%
	Subtotal	$17,597	100.00%	0.00%	100.00%	$42,774	100.00%	0.00%	100.00%	$71,977	100.00%	0.00%	100.00%
TOTAL		$47,204,586				$65,086,554				$65,254,313			

3. ORGANIZATIONAL STRUCTURE

3.1. INTRODUCTION

Ocean Leadership has subcontracts with LDEO and with TAMU (through TAMRF) that formally establish the USIO for IODP. The USIO carries out all of its IODP deliverables through contracts with IODP-MI for science operating costs and with NSF for platform operating costs.

On behalf of the USIO, and as outlined in this Annual Program Plan, TAMRF has contracted with ODL for the services of the scientific ocean drilling vessel *JOIDES Resolution* for use as the USIO riserless drilling vessel. In addition, LDEO has contracted with Schlumberger for the provision of downhole logging equipment and engineering support.

The organizational structure employed by the USIO is designed to mirror the WBE accounting structure used by IODP and allows the USIO to effectively and efficiently carry out the mission of the USIO. This structure also aligns the organization to efficiently and economically provide the full array of science, operations, logging, engineering, information technology, technical, and publications services; laboratory facilities; core repositories; and administrative services deliverables.

3.2. USIO FTE ALLOCATION TABLES

The full-time equivalent (FTE) allocation tables present an accounting of the cumulative estimated effort as partitioned between the WBE(s) to which positions are assigned and as partitioned between SOC, POC, and other costs. The FTE allocation tables reflect actual FTEs as of 24 July 2010 plus projected FTEs for FY11. Staffing levels may change annually due to unanticipated changes in the operations schedule and/or scope of work. SOC FTEs shown in **Section 3.2.1. FY11 USIO FTE Allocation Summary** also include effort devoted to providing assistance to the European Consortium for Ocean Research Drilling (ECORD) Science Operator (ESO) and Center for Deep Earth Exploration (CDEX) as noted in the **"Technical, Engineering, and Science Support," "Data Management,"** and **"Publications"** chapters and to IODP-MI as noted in the **"Publications"** chapter.

3.2.1. FY11 USIO FTE Allocation Summary

FTE by Work Breakdown Elements									
USIO Office	**M&A**	**TESS**	**ED**	**CC**	**DM**	**Pubs**	**Ed**	**Otrch**	**Total**
Ocean Leadership	4.13	0.00	0.00	0.00	0.00	0.00	0.00	0.25	4.38
LDEO	4.56	10.47	0.00	0.00	4.71	0.00	0.00	0.00	19.74
TAMU	5.50	62.00	0.00	3.90	17.50	21.75	0.00	0.00	110.65
Totals	**14.18**	**72.47**	**0.00**	**3.90**	**22.21**	**21.75**	**0.00**	**0.25**	**134.76**

FTE by Expense Category				
USIO Office	**SOC**	**POC**	**Other**	**Total**
Ocean Leadership	1.38	3.00	3.73	8.10
LDEO	4.42	15.32	0.00	19.74
TAMU	29.60	81.05	0.10	110.75
Totals	**35.40**	**99.37**	**3.83**	**138.59**

Notes: FTE = full-time equivalent; M&A = Maintenance and Administration; TESS = Technical, Engineering, and Science Support; ED = Engineering Development; CC = Core Curation; DM = Data Management; Pubs = Publications; Ed = Education; Otrch = Outreach; Other = efforts funded by other sources (e.g., other Program integrated costs [OPIC], San Andreas Fault Observatory at Depth [SAFOD], etc.); SOC = science operating costs; POC = platform operating costs. Student workers and TAMRF administrative support staff are not included in the table.

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3.2.2. FY11 USIO FTE Allocation Detail

Position			% Work Breakdown Elements									% Effort Totals			
Name	Position Title	USIO Office	M&A	TESS	ED	CC	DM	Pubs	Ed	Otrch	Total	SOC	POC	Other	Total
Bob Gagosian	President and Chief Executive Officer	Ocean Leadership	12.5%	0%	0%	0%	0%	0%	0%	0%	12.5%	0%	12.5%	0%	12.5%
Molly Fink	Executive Assistant	Ocean Leadership	12.5%	0%	0%	0%	0%	0%	0%	0%	12.5%	0%	12.5%	0%	12.5%
David Divins	Director, Ocean Drilling Programs	Ocean Leadership	87.5%	0%	0%	0%	0%	0%	0%	0%	87.5%	25%	62.5%	12.5%	100%
Greg Myers	Senior Technical Expert	Ocean Leadership	100%	0%	0%	0%	0%	0%	0%	0%	100%	50%	50%	0%	100%
Doug Fils	Technical Expert	Ocean Leadership	100%	0%	0%	0%	0%	0%	0%	0%	100%	18.75%	81.25%	0%	100%
Margo Morell	Assistant Director, Ocean Drilling	Ocean Leadership	100%	0%	0%	0%	0%	0%	0%	0%	100%	18.75%	81.25%	0%	100%
Julie Farver	Manager, Travel Services	Ocean Leadership	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	10%
Audrey Divins	Administrative Assistant	Ocean Leadership	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	20%
Sarah Saunders	Director, Science Communications	Ocean Leadership	0%	0%	0%	0%	0%	0%	0%	12.5%	12.5%	12.5%	0.00%	67.5%	80%
Kristin Ludwig	Manager, Communications	Ocean Leadership	0%	0%	0%	0%	0%	0%	0%	12.5%	12.5%	12.5%	0.00%	62.5%	75%
Leslie Peart	Director, Education	Ocean	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	50%
Sharon Cooper	Assistant Director, Education	Ocean Leadership	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%
Katie Golieb	Administrative Assistant	Ocean Leadership	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	50%
TOTAL Ocean Leadership FTEs			**4.13**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.25**	**4.38**	**1.38**	**3.00**	**3.73**	**8.10**
Dave Goldberg	Director	LDEO	55.83%	0%	0%	0%	0%	0%	0%	0%	55.83%	11.83%	44.0%	0%	55.83%
Marsha Meyer	Administrative Assistant	LDEO	100%	0%	0%	0%	0%	0%	0%	0%	100%	12%	88%	0%	100%
Alberto Malinverno	Principal Scientist	LDEO	0%	17.5%	0%	0%	0%	0%	0%	0%	17.5%	0%	17.5%	0%	17.5%

Notes: FTE = full-time equivalent; M&A = Maintenance and Administration; TESS = Technical, Engineering, and Science Support; ED = Engineering Development; CC = Core Curation; DM = Data Management; Pubs = Publications; Ed = Education; Otrch = Outreach; Other = efforts funded by other sources (e.g., other Program integration costs [OPIC], San Andreas Fault Observatory at Depth [SAFOD], etc.); TBN = to be named. We anticipate filling all TBN positions before or during FY11. Student workers and TAMRF administrative support staff are not included in the table. (Continued on next seven pages.)

FY11 USIO FTE Allocation Detail (continued)

Position			% Work Breakdown Elements									% Effort Totals			
Name	Position Title	USIO Office	M&A	TESS	ED	CC	DM	Pubs	Ed	Otrch	Total	SOC	POC	Other	Total
Mary Reagan	Deputy Director	LDEO	100%	0%	0%	0%	0%	0%	0%	0%	100%	12%	88%	0%	100%
Simon Draper	Office Coordinator	LDEO	0%	42%	0%	0%	0%	0%	0%	0%	42%	0%	42%	0%	42%
Carl Brenner	Technical Services Specialist	LDEO	50%	0%	0%	0%	0%	0%	0%	0%	50%	6%	44%	0%	50%
TBN	Web/Graphics Developer	LDEO	50%	0%	0%	0%	0%	0%	0%	0%	50%	6%	44%	0%	50%
David Grames	Project Coordinator	LDEO	100%	0%	0%	0%	0%	0%	0%	0%	100%	12%	88%	0%	100%
Sarah Davies	Logging Consortium Chief Scientist	LDEO	0%	8%	0%	0%	0%	0%	0%	0%	8%	0%	8%	0%	8%
Eric Meissner	Manager, Engineering and Technical Services	LDEO	0%	100%	0%	0%	0%	0%	0%	0%	100%	25%	75%	0%	100%
Walt Masterson	Engineering/Logistics Coordinator	LDEO	0%	100%	0%	0%	0%	0%	0%	0%	100%	25%	75%	0%	100%
Geetika Kapoor	Electrical Engineer	LDEO	0%	100%	0%	0%	0%	0%	0%	0%	100%	25%	75%	0%	100%
Stefan Mrozewski	Mechanical Engineer	LDEO	0%	100%	0%	0%	0%	0%	0%	0%	100%	25%	75%	0%	100%
Gerardo Iturrino	Supervisor, Science Operations	LDEO	0%	100%	0%	0%	0%	0%	0%	0%	100%	25%	75%	0%	100%
Louise Anderson	Logging Staff Scientist	LDEO	0%	42%	0%	0%	0%	0%	0%	0%	42%	0%	42%	0%	42%
Helen Evans	Logging Staff Scientist	LDEO	0%	100%	0%	0%	0%	0%	0%	0%	100%	44%	56%	0%	100%
Annick Fehr	Logging Staff Scientist	LDEO	0%	17%	0%	0%	0%	0%	0%	0%	17%	0%	17%	0%	17%
Gilles Guerin	Logging Staff Scientist	LDEO	0%	74.75%	0%	0%	0%	0%	0%	0%	74.75%	18.75%	56%	0%	74.75%
Jenny Inwood	Logging Staff Scientist	LDEO	0%	42%	0%	0%	0%	0%	0%	0%	42%	0%	42%	0%	42%
Johanna Lofi	Logging Staff Scientist	LDEO	0%	17%	0%	0%	0%	0%	0%	0%	17%	0%	17%	0%	17%
Angela Slagle	Logging Staff Scientist	LDEO	0%	74.75%	0%	0%	0%	0%	0%	0%	74.75%	18.75%	56%	0%	74.75%
Trevor Williams	Logging Staff Scientist	LDEO	0%	87%	0%	0%	0%	0%	0%	0%	87%	31%	56%	0%	87%
Natalia Zakharova	Graduage Student	LDEO	0%	25%	0%	0%	0%	0%	0%	0%	25%	25%	0%	0%	25%
Dan Quoidbach	Manager, Information Services	LDEO	0%	0%	0%	0%	100%	0%	0%	0%	100%	40%	60%	0%	100%
Ted Baker	Systems Analyst/Database Administrator	LDEO	0%	0%	0%	0%	100%	0%	0%	0%	100%	40%	60%	0%	100%
Golam Sarkar	Technical Analyst	LDEO	0%	0%	0%	0%	100%	0%	0%	0%	100%	40%	60%	0%	100%
Cristina Broglia	Supervisor, Data Services	LDEO	0%	0%	0%	0%	50%	0%	0%	0%	50%	0%	50%	0%	50%

(Continued on next six pages.)

FY11 USIO FTE Allocation Detail (continued)

Position			% Work Breakdown Elements									% Effort Totals			
Name	Position Title	USIO Office	M&A	TESS	ED	CC	DM	Pubs	Ed	Otrch	Total	SOC	POC	Other	Total
Tanzhuo Liu	Senior Log Analyst	LDEO	0%	0%	0%	0%	100%	0%	0%	0%	100%	0%	100%	0%	100%
Bob Arko	Database Developer	LDEO	0%	0%	0%	0%	21%	0%	0%	0%	21%	0%	21%	0%	21%
TOTAL LDEO FTEs			**4.56**	**10.47**	**0.00**	**0.00**	**4.71**	**0.00**	**0.00**	**0.00**	**19.74**	**4.42**	**15.32**	**0.00**	**19.74**
Brad Clement	Director	TAMU	50%	0%	0%	0%	0%	0%	0%	0%	50%	2.5%	47.5%	0%	50%
Barbara McCannon	Administrative Assistant	TAMU	100%	0%	0%	0%	0%	0%	0%	0%	100%	5%	95%	0%	100%
Bill Wasson	Manager, IODP Business Services	TAMU	100%	0%	0%	0%	0%	0%	0%	0%	100%	5%	95%	0%	100%
Kim Johnson	Supervisor, IODP Human Resources	TAMU	100%	0%	0%	0%	0%	0%	0%	0%	100%	5%	95%	0%	100%
Ollie Berka	Human Resources Representative	TAMU	100%	0%	0%	0%	0%	0%	0%	0%	100%	5%	95%	0%	100%
Ashley Crane	Senior Management Analyst	TAMU	100%	0%	0%	0%	0%	0%	0%	0%	100%	5%	95%	0%	100%
John Firth	Curator	TAMU	0%	0%	0%	95%	0%	0%	0%	0%	95%	70%	25%	5%	100%
Phil Rumford	Superintendent, GCR	TAMU	0%	0%	0%	95%	0%	0%	0%	0%	95%	70%	25%	5%	100%
Chad Broyles	Curatorial Specialist	TAMU	0%	0%	0%	100%	0%	0%	0%	0%	100%	75%	25%	0%	100%
Lara Miles	Curatorial Specialist	TAMU	0%	0%	0%	100%	0%	0%	0%	0%	100%	75%	25%	0%	100%
Mitch Malone	Manager, Science Operations	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Janice Muston	Administrative Assistant	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
William Rinehart	Supervisor, Engineering Services	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Bob Aduddell	Staff Engineer	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Kevin Grigar	Staff Engineer	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Liping Chen	Senior Design Engineer	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Dean Ferrell	Senior Designer	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Mike Meiring	Senior Designer	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Eric Schulte	Senior Designer	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Mike Storms	Supervisor, Operations Support	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%

(Continued on next five pages.)

FY11 USIO FTE Allocation Detail (continued)

Position			% Work Breakdown Elements									% Effort Totals			
Name	Position Title	USIO Office	M&A	TESS	ED	CC	DM	Pubs	Ed	Otrch	Total	SOC	POC	Other	Total
Ron Grout	Operations Superintendent	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Steve Midgley	Operations Superintendent	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Dave Lehnert	Materials Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Robert Mitchell	Marine Logistics Coordinator	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
TBN	Materials Technician	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Sandy Dillard	Shipping and Receiving Coordinator	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Adam Klaus	Supervisor, Science Support	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Carlos Alvarez-Zarikian	Staff Scientist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Peter Blum	Staff Scientist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Kusali Gamage	Staff Scientist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Joerg Geldmacher	Staff Scientist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Katerina Petronotis	Staff Scientist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
TBN	Staff Scientist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Jay Miller	Manager, Technical and Analytical Services	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
David Houpt	Supervisor, Analytical Systems	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Karen Graber	Staff Researcher	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Chris Bennight	Research Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Lisa Brandt	Research Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Trevor Cobine	Research Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Thomas Gorgas	Research Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Maggie Hastedt	Research Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Sarah-Jane Jackett	Research Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Zenon Mateo	Research Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Maxim Vasilyev	Research Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Yulia Vasilyeva	Research Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Michael Bertoli	Research Assistant	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%

(Continued on next four pages.)

FY11 USIO FTE Allocation Detail (continued)

Position			% Work Breakdown Elements									% Effort Totals			
Name	Position Title	USIO Office	M&A	TESS	ED	CC	DM	Pubs	Ed	Otrch	Total	SOC	POC	Other	Total
John Beck	Senior Imaging Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Bill Crawford	Senior Imaging Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Brad Julson	Supervisor, Technical Support	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Roy Davis	Laboratory Officer	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Bill Mills	Laboratory Officer	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Tim Bronk	Assistant Laboratory Officer	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Lisa Crowder	Assistant Laboratory Officer	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Chieh Peng	Assistant Laboratory Officer	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Steve Prinz	Assistant Laboratory Officer	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Heather Barnes	Marine Laboratory Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Ted Gustafson	Marine Laboratory Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Kristin Hillis	Marine Laboratory Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Eric Jackson	Marine Laboratory Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Erik Moortgat	Marine Laboratory Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
TBN	Marine Laboratory Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Etienne Claassen	Sr. Marine Instrumentation Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Randy Gjesvold	Sr. Marine Instrumentation Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%

(Continued on next three pages.)

FY11 USIO FTE Allocation Detail (continued)

Position			% Work Breakdown Elements									% Effort Totals			
Name	Position Title	USIO Office	M&A	TESS	ED	CC	DM	Pubs	Ed	Otrch	Total	SOC	POC	Other	Total
Jurie Kotze	Marine Instrumentation Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Garrick Van Rensburg	Sr. Marine Instrumentation Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Jim Rosser	Manager, Development, IT, and Databases	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	25%	75%	0%	100%
Denise Ponzio	Information Services Assistant	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	25%	75%	0%	100%
Phil Gates	Supervisor, Information Technology Support	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	25%	75%	0%	100%
Cesar Flores	Senior Systems Administrator	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	25%	75%	0%	100%
Jennifer Hutchinson	Systems Administrator	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	25%	75%	0%	100%
Matt Mefferd	Systems Administrator	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	25%	75%	0%	100%
Mike Petersen	Senior Systems Support Specialist	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	25%	75%	0%	100%
John Baldwin	Systems Support Specialist	TAMU	0%	0%	0%	0%	50%	0%	0%	0%	50%	13%	38%	0%	50%
Tiffany Bloxom	Systems Support Specialist	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	25%	75%	0%	100%
James Cordray	Systems Support Specialist	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	25%	75%	0%	100%
Chuck Haddick	Systems Support Specialist	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	25%	75%	0%	100%
Mike Hodge	Senior Marine Computer Specialist	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	25%	75%	0%	100%
Grant Banta	Marine Computer Specialist	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	25%	75%	0%	100%
Andrew Trefethen	Marine Computer Specialist	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	25%	75%	0%	100%

(Continued on next two pages.)

FY11 USIO FTE Allocation Detail (continued)

Position			% Work Breakdown Elements									% Effort Totals			
Name	Position Title	USIO Office	M&A	TESS	ED	CC	DM	Pubs	Ed	Otrch	Total	SOC	POC	Other	Total
TBN	Marine Computer Specialist	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	25%	75%	0%	100%
Paul Foster	Supervisor, Applications Development	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
David Fackler	Applications Developer IV	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Dwight Hornbacher	Applications Developer IV	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Timothy Blaisdell	Applications Developer III	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Stephanie Zeliadt	Applications Developer III	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
James Zhao	Applications Developer III	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Algie Morgan	Applications Developer II	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Rakesh Mithal	Supervisor, Databases/Archives	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	75%	25%	0%	100%
TBN	Database Administrator	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	75%	25%	0%	100%
Don Sims	Data Analyst	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	75%	25%	0%	100%
Angie Miller	Manager, Publication Services	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	100%	0%	0%	100%
Lorri Peters	Supervisor, Editing	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	100%	0%	0%	100%
Shana Lewis	Editor III	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	100%	0%	0%	100%
Amy McWilliams	Editor III	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	100%	0%	0%	100%
Jenni Hesse	Editor II	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	100%	0%	0%	100%
Erin O'Roke	Editor II	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	100%	0%	0%	100%
Ginny Lowe	Reports Coordinator	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	100%	0%	0%	100%
Kathy Phillips	Publications Specialist	TAMU	0%	0%	0%	0%	0%	75%	0%	0%	75%	75%	0%	0%	75%
Jaime Gracia	Supervisor, Production	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	100%	0%	0%	100%
Patrick Edwards	Production Specialist III	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	100%	0%	0%	100%

(Continued on next page.)

FY11 USIO FTE Allocation Detail (continued)

Position			% Work Breakdown Elements									% Effort Totals			
Name	Position Title	USIO Office	M&A	TESS	ED	CC	DM	Pubs	Ed	Otrch	Total	SOC	POC	Other	Total
Kenneth Sherar	Production Specialist II	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	100%	0%	0%	100%
Crystal Wolfe	Production Specialist II	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	100%	0%	0%	100%
TBN	Production Specialist I	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	100%	0%	0%	100%
Ann Yeager	Distribution Specialist	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	100%	0%	0%	100%
Debbie Partain	Supervisor, Graphics	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	80%	20%	0%	100%
Tim Fulton	Graphics Specialist II	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	80%	20%	0%	100%
Rhonda Kappler	Graphics Specialist II	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	80%	20%	0%	100%
Laura Koehler	Graphics Specialist II	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	80%	20%	0%	100%
TBN	Graphics Specialist II	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	80%	20%	0%	100%
TBN	Graphics Specialist II	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	80%	20%	0%	100%
TBN	Graphics Specialist II	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	100%	0%	0%	100%
Gigi Delgado	Senior Publications Coordinator	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	100%	0%	0%	100%
TOTAL TAMU FTEs			**5.50**	**62.00**	**0.00**	**3.90**	**17.50**	**21.75**	**0.00**	**0.00**	**110.65**	**29.60**	**81.05**	**0.10**	**110.75**
GRAND TOTAL USIO FTEs			**14.18**	**72.47**	**0.00**	**3.90**	**22.21**	**21.75**	**0.00**	**0.25**	**134.76**	**35.40**	**99.37**	**3.83**	**138.59**

4. EXPEDITION OPERATIONS

4.1. INTRODUCTION

This Annual Program Plan is based on the operations schedule published 1 February 2010, including a four-month maintenance period that assumes a Gulf of Mexico tie-up location.

19 September–9 October 2010	Transit
9 October–13 December 2010	South Pacific Gyre Expedition
13 December 2010–12 February 2011	Louisville Seamount Trail Expedition
12 February–15 March 2011	Transit
15 March–14 April 2011	Costa Rica Seismogenesis Project Expedition
14 April–4 June 2011	Superfast Spreading Rate Crust 4 Expedition
4 June–17 September 2011	Maintenance Period*
17 September–20 November 2011	Mid-Atlantic Ridge Microbiology Expedition

*includes deploying IODP-funded engineering project Simple Cabled Instrument for Measuring Parameters In Situ (SCIMPI) at a site of opportunity during the maintenance period.

4.2. OPERATIONS

4.2.1. South Pacific Gyre Expedition

Proposed Operations

The main objectives of the South Pacific Gyre Expedition are to (1) document the habitats, activities, composition and biomass of microbial communities in subseafloor sediments with very low total activity; (2) test how oceanographic factors (such as surface ocean chlorophyll content and organic flux to the seafloor) control variation in sedimentary habitats, activities, and communities from gyre center to gyre margin; (3) quantify the extent to which these sedimentary communities may be supplied with electron donors by water radiolysis, a process independent of the surface photosynthetic world; and (4) determine how basement habitats, potential activities, and communities vary with crustal age and hydrologic regime in a region of fast seafloor spreading and thin sediment cover. To meet these objectives, we will core the entire sediment column at seven sites and the upper 100 m of basement at three sites. The three basement sites and the deepest sediment site will be logged.

Logistics

Operations for the South Pacific Gyre Expedition require an estimated 65 days (4 in port, 9 in transit to and from the first/last sites, and 52 in operations, which includes ~18 days of transit between sites).

4.2.2. Louisville Seamount Trail Expedition

Proposed Operations

The Louisville seamount trail is a 4,300 km long volcanic chain that is inferred to have been built in the past 80 m.y. as the Pacific plate moved over a persistent melt anomaly or hotspot, and is the South Pacific counterpart of the more extensively studied Hawaiian-Emperor seamount trail. The Louisville Seamount Trail Expedition is designed to examine (1) the possible motion of the Louisville hotspot and its geodynamical implications and (2) the eruptive cycle and geochemical evolution of the seamount trail. To address these objectives, we will core and log at least 350 m into igneous basement at three small and one larger Louisville guyots.

Logistics

Operations for the Louisville Expedition are budgeted based on an estimated 61 days (5 in port, 8 in transit, and 48 in operations).

4.2.3. Costa Rica Seismogenesis Project Expedition

Proposed Operations

The CRISP Expedition is part of a complex drilling project designed to understand the processes that control nucleation and seismic rupture of large earthquakes at erosional subduction zones. The FY11 CRISP Expedition is based on part of IODP Proposal 537-Full5. Overall scientific objectives include constraining the architecture and evolution of the plate boundary megathrust, the role of fluids, and the nature of the upper plate in a tectonically erosive margin. The CRISP Expedition will focus on coring two slope sites (Site CRIS 3B–middle slope and Site CRIS 4A–upper slope).

Logistics

Operations for the CRISP Expedition are budgeted based on an estimated 30 days (2 in port, 3 in transit, and 25 in operations).

4.2.4. Superfast Spreading Rate Crust 4 Expedition

Proposed Operations

The Superfast Spreading Rate Crust 4 Expedition follows on the results of three previous expeditions (Ocean Drilling Program [ODP] Leg 206 and IODP Expedition 309/312) and aims to continue the mission to understand the accretion of oceanic crust formed at a superfast spreading rate at the East Pacific Rise. Previous drilling in ODP Hole 1256D reached a total penetration of 1506 m, including 1250 m into the igneous crust. The hole passed through 345 m of sheeted dikes and continued 100 m into gabbroic rock. This fourth expedition will deepen Hole 1256D as far as possible into gabbro to complete coring and logging of an entire upper to mid-oceanic crustal section. If problems are encountered and it becomes operationally impossible to deepen the hole, contingency sites at CRISP will be drilled.

Logistics

Operations for the Superfast Expedition are budgeted based on an estimated 51 days (4 in port, 8 in transit, and 39 in operations).

4.2.5. Mid-Atlantic Ridge Microbiology Expedition

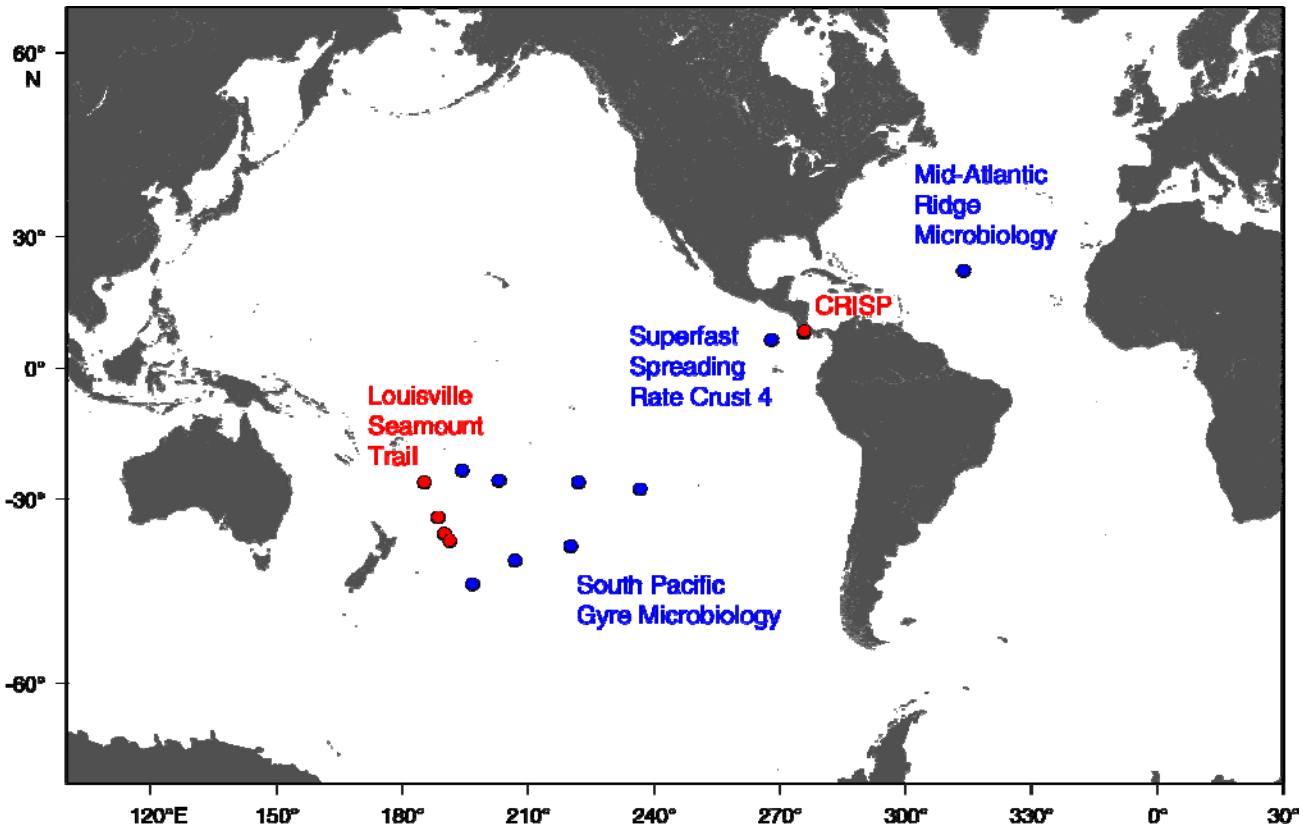
Proposed Operations

The Mid-Atlantic Ridge Microbiology Expedition will examine the microbiology of a sediment pond and the underlying young, cold, and hydrologically active flank of the Mid-Atlantic Ridge. Drilling operations at three sites will include sediment/basalt coring, basement logging, and installation of three long-term subseafloor observatories. The primary science objectives are to investigate (1) the nature of microbial communities in young ridge flanks and their role in crustal weathering and (2) the origin of deep-seated microbial communities.

Logistics

Operations for this expedition will straddle FY11 and FY12. Operations for the FY11 portion of the Mid-Atlantic Ridge Microbiology Expedition are budgeted based on an estimated 13 days (5 in port, 4 in transit, and 4 in operations).

4.3. IODP-USIO FY11 SITE MAP



4.4. EXPEDITION OPERATIONS BUDGET

This table includes the major expedition costs but does not include all costs itemized in the budget narrative below that support expedition operations.

Expense Category	Transit	South Pacific Gyre	Louisville Seamount Trail	Transit	Costa Rica Seismogenesis Project (CRISP)	Superfast Spreading Rate Crust 4	Panama Canal and Transit	Maintenance Period (Tie-Up)	Re-deployment and Transit	Mid-Atlantic Ridge Microbiology	Total
	8 days[1]	65 days	61 days	31 days	30 days	51 days	6 days	85 days	14 days	14 days[1]	365 days
Ship Operations											
Day Rate	655,200	5,315,500	4,985,900	2,538,900	2,453,000	4,168,900	491,400	6,791,500	1,146,600	1,126,600	29,673,500
Communications[2]	6,300	50,960	47,820	24,300	23,520	40,000	4,700	66,400	11,000	11,000	286,000
Fuel and Lubricants[3]	0	308,000	1,490,000	810,000	500,000	837,000	143,000	530,000	669,000	623,000	5,910,000
Per Diem	13,440	117,000	109,000	45,000	54,000	90,000	8,900	21,100	22,906	25,000	506,346
Port Calls[3]	0	215,000	285,000	285,000	130,000	205,000	10,000	115,000	215,000	307,000	1,767,000
Insurance	29,000	271,000	254,000	126,000	122,000	211,000	21,000	235,000	58,000	60,364	1,387,364
Travel—ODL[3]	0	85,000	85,000	0	85,000	85,000	0	85,000	85,000	85,000	595,000
Other Expenses—ODL[3, 4]	0	7,000	7,000	2,000	4,000	4,000	0	1,000	2,000	3,000	30,000
Contractual Services											
Schlumberger[5]	66,085	613,648	589,305	302,104	303,040	486,132	122,730	779,111	94,407	122,730	3,479,292
Environmental Assessment	0	0	0	0	0	33,000	0	0	0	33,000	66,000
Total	**$770,025**	**$6,983,108**	**$7,853,025**	**$4,133,304**	**$3,674,560**	**$6,160,032**	**$801,730**	**$8,624,111**	**$2,303,913**	**$2,396,694**	**$43,700,502**

[1] Only the FY11 portion is included in this budget.
[2] Communications expenses include Marisat costs that will be incurred when very small aperture terminal (VSAT) service is unavailable because of the vessel's location.
[3] Fuel and lubricants, port calls, travel—ODL, and other expenses—ODL required for the transit from Victoria, British Columbia, to Papeete, Tahiti, were budgeted in FY10.
[4] No ODL crew change is expected in Panama prior to the transit to Galveston, Texas, for tie-up. No ODL other expenses are expected for the transit through the Panama Canal and transit to Galveston due to the short duration.
[5] Louisville Seamount Trail Expedition costs include Ultrasonic Borehole Imager deployment. CRISP Expedition costs include logging-while-coring deployment.

Expedition costs included in this budget cover SOC and POC activities in support of the USIO FY11 expeditions, as follows:

Salaries and Fringes—Salaries, fringes, and sea pay, including an anticipated cost-of-living allowance and estimated fringe benefits rate.

Expedition-based salaries, fringes, and sea pay.

Travel—Transportation, per diem, lodging, and other associated costs.

Travel expenses for all USIO staff who will work at port calls, sail on FY11 expeditions and transit, and/or serve as custodians during the maintenance (tie-up) period.

Supplies—Office and operational supplies.

Safety equipment and operational, laboratory, logistic, and shipping supplies for the FY11 expeditions.

Shipping—Postage, express mail, and freight.

Costs for shipments to and from FY11 expeditions.

Communication—Satellite, telephone, and fax charges.

Cost for very small aperture terminal (VSAT) communication and Marisat communication to and from the *JOIDES Resolution.*

Contractual Services—Consultant and contract services.

Subcontract to members of the Logging Consortium (University of Montpellier, France; University of Leicester, United Kingdom; University of Aachen, Germany) to provide shipboard participation of Logging Staff Scientists, liaisons to selected panels as needed, and scientific support for Program planning and logging-related projects are included in the SOC budget. Subcontract to Schlumberger for provision of a standard suite of tools, engineer services, software support, and mobilization services; specialty tools for use on individual cruises as needed; a dedicated engineer on the ship for each cruise and support from the base of operations; and the services of a district engineer, staff engineer, electronics technician, and special services engineer on an as-needed basis (part-time to nearly full-time support). Costs (including shipping charges) related to the leasing of equipment needed for wireline fishing, back-off and severing services, and the day rate and travel expenses for the Schlumberger engineer are included in the POC budget. Tool insurance for the deployment of downhole logging tools is now included in the Schlumberger subcontract and is provided on a day rate basis. Other contracts provide test and calibration services for analytical equipment and downhole measurement tools. In addition, costs are budgeted for contractual services associated with environmental assessment for marine mammal permitting associated with seismic operations.

Equipment—Procurement, upgrading, or fabrication of equipment with an acquisition cost of more than $5,000, plus those items as defined by Columbia University and TAMRF policy.

Costs associated directly with equipment (computer, scientific, and drilling) intended solely for use on the ship over a period of time greater than one expedition, equipment purchased for a specific expedition, and pro-rata cost of shore-based equipment used partially to support expedition activities.

Other Direct Costs—Costs not covered in other categories.

Day Rate—Vessel staffing for the subcontractor's sailing crew and drilling personnel.

Cost of staffing the ship, including the sailing crew and drilling personnel, but not including the cost of the USIO personnel or scientists aboard the ship. The day rate varies according to the mode of the ship, which is operating (drilling or cruising) or standing by (in port). Although it is a fixed rate per day, the day rate is adjusted for changes in the Consumer Price Index-Urban (CPI-U) and Employment Cost Index (ECI). The amount is based on 365 days, which includes an 85-day maintenance (tie-up) period (10 June–2 September 2011) in Galveston, Texas. The weighted average operating and standby day rates for the period are $81,900 and $79,900, respectively. The budget allows for one CPI-U base adjustment of 2.5% and one ECI base adjustment of 2.5%, both effective 1 April 2011.

Fuel and Lubricants—Fuel for the riserless vessel.

FY11 ship operations fuel purchases are estimated at a total of 7,300 metric tons: 400 metric tons in Papeete, Tahiti; 3,200 metric tons in Auckland, New Zealand (2 refuelings); 1,500 metric tons in Balboa, Panama; 1,800 metric tons in Galveston, Texas, prior to redeployment; and 400 metric tons in Bridgetown, Barbados. Refuelings are budgeted at $740 to $935 per metric ton, depending on location. Price per metric ton is based on prices quoted by Bunkerworld on 15 July 2010 for the locations specified, plus a 10% inflation factor.

Per Diem—Shipboard catering.

Costs associated with meals and berthing on the vessel and cleaning of the laboratory stack. The estimate is based on a shipboard party of 60 participants at $30/day/person for all non-transit and non-maintenance periods. For transit periods, estimates are based on a shipboard party ranging from 8 to 40 at a cost per person of either $31 or $42 (per the catering contract, the cost per person increases when the shipboard party decreases during transits and tie-up). The cost during the maintenance (tie-up) period (10 June–2 September 2011) is based on 8 onboard IODP custodians at $31/day/person. Also included is approximately $3,400 for meals served during port calls (including tie-up) to all non-seagoing personnel. This category does not include per diem for the ship subcontractor's sailing crew and drilling personnel, as they are accounted for in the day rate unless charged as a reimbursable (see "Day Rate" above).

Port Calls—Vessel agent's expenses and subcontractor freight.

Locations have a definite effect on the port call cost, which covers agents' expenses and freight associated with resupplying the ship. During the deployment and first expedition port calls, materials and equipment are off-loaded and supplies and equipment are loaded for the upcoming period's activities. ODL is reimbursed for port agent charges and shipment of food and related supplies. Shipment of cores, drilling equipment, and laboratory supplies is arranged by TAMU and paid for by TAMRF. Similarly, TAMRF purchases all drilling equipment and laboratory supplies necessary for meeting the objectives of the expedition. Port calls by expedition are based on the estimated costs for the port from which the expedition begins and any interim port calls occurring prior to its conclusion, as identified in the current ship schedule. Note that this category also includes the lodging and per diem costs for ODL crew changes, based on the total number of rooms required and a breakfast and dinner for each crew person occupying a room, all according to federal rates.

Port calls are scheduled for Papeete, Tahiti (4 days); Auckland, New Zealand (2 port calls at 5 days each); Puntarenas, Costa Rica (2 days); Balboa, Panama (4 days); Colon, Panama (1 day), Galveston, Texas (85 days for maintenance [tie-up] and redeployment); and Bridgetown, Barbados (4 days).

Insurance—Annual insurance premiums for subcontractor and TAMRF.

Subcontractor's premium costs for All Risks Marine Hull and Machinery (H&M) and Removal of Wreck (ROW) insurance and TAMRF premium costs for General and Automobile Liability, Workers Compensation, Cargo, Third Party Property (Equipment), Excess Liability, Control of Well and Seepage and Pollution Liability, Charterers Legal Liability, and Contractor's Pollution Liability–Gradual coverage for the vessel. All premium amounts are based on 365 days of coverage with premiums for certain sections of the H&M insurance reduced by 50% during the maintenance (tie-up) period.

Travel–ODL—Subcontractor transportation.

Airfare for ship subcontractor's crews to/from 7 scheduled crew changes—Papeete, Tahiti; Auckland, New Zealand (2); Balboa, Panama; Galveston, Texas (2 during 85-day maintenance [tie-up] period); and Bridgetown, Barbados. The estimate is based on a crew of 60 personnel with various domestic and international origin fly points arriving and departing each port call. Expedition costs are based on round trip airfares for the ship subcontractor's sailing crew and drilling personnel to travel to the port call where the expedition begins and return from the port call where the expedition ends.

Relocation—Relocation costs for new TAMU seagoing employees.

Business Conferences—Incidental expenses associated with meetings hosted by the USIO.

Expenses for pre-expedition, postexpedition, and planning meetings.

Services—Expert assistance.

Cost to cover medical evacuation and other miscellaneous charges payable to the ship's subcontractor, drill pipe maintenance, wireline severing charges, shipboard maintenance service calls, transfer fees, weather reports, annual physical examinations for seagoing personnel, copier services, and external copying and printing services.

Other Expenses—ODL—ODL costs not covered in other categories.

Costs for possible medical evacuations ($25,000) and miscellaneous reimbursables ($5,000) payable to the ship subcontractor.

Recruiting—Employee recruitment.

Local advertisements, advertisements in science and trade journals, and other costs related to filling seagoing positions.

Maintenance and Repair—Maintenance agreements and equipment repairs.

Maintenance and repair of drilling, coring, logging, operations, and laboratory and safety equipment.

Indirect Costs—Administrative and financial costs associated with operating the Program.

For LDEO, indirect costs at 53% are assessed on all charges except permanent equipment. In addition, subcontracts are charged indirect costs on the first $25,000 of each contract. The

indirect costs for subcontracts established prior to FY11 have already been paid, so these subcontracts are not subject to indirect cost during FY11. MTDCs are the total direct costs minus these exceptions.

5. MANAGEMENT AND ADMINISTRATION

5.1. GOALS

The USIO provides integrated management that is led by the contractor (Ocean Leadership) in coordination with the other two USIO members (LDEO and TAMU).

Goals of the USIO management staff include planning, coordinating (with other IODP-related entities), overseeing, reviewing, and reporting on IODP activities.

5.2. DELIVERABLES IN FY11

- Annual Program Plan: Develop and assure implementation.
- Quarterly and Annual Reports: Develop quarterly and annual reports, including financial reports.
- Reporting and Liaison Activities: Report to and liaise with funding agencies and with IODP-related agencies (e.g., the Science Advisory Structure [SAS]), Program Member Offices, and other national organizations. Participate in SAS panels, IODP-MI task forces, working groups, and so on.
- Contract Services: Provide contract services for IODP-related activities.
- Legacy Documentation.

5.3. BUDGET

Management and Administration			
Element/Expense Category	**SOC**	**POC**	**Total**
Salaries and Fringes	350,735	2,614,570	2,965,305
Travel	34,725	259,626	294,351
Supplies	7,750	49,800	57,550
Shipping	2,270	8,930	11,200
Communication	10,736	46,338	57,074
Contractual Services	6,000	30,000	36,000
Equipment	50	950	1,000
Other Direct Costs	5,735	124,765	130,500
Relocation	*0*	*0*	0
Training	*1,350*	*25,650*	27,000
Business Conferences	*175*	*3,325*	3,500
Insurance	*425*	*8,075*	8,500
Services	*2,110*	*55,890*	58,000
TAMU Computing Services	*1,000*	*19,000*	20,000
Equipment Rental	*50*	*950*	1,000
Furniture	*150*	*2,850*	3,000
Recruiting	*25*	*475*	500
Maintenance and Repair	*400*	*7,600*	8,000
Library	*50*	*950*	1,000
Total Direct Costs	418,001	3,134,979	3,552,980
Modified Total Direct Costs (if applicable)	72,401	452,587	524,988
Indirect Costs or Administrative Fees	227,014	842,186	1,069,200
Total Management and Administration	**$645,015**	**$3,977,165**	**$4,622,180**

Funds for this WBE are budgeted as follows:

Salaries and Fringes—Salaries, fringes, and sea pay, including an anticipated cost-of-living allowance and estimated fringe benefits rate.

SOC/POC—Salaries and fringes for staff supporting the USIO (see **Section 3.2. USIO FTE Allocation Tables**). Also includes salaries and fringes for 12.75 TAMRF FTEs who provide administrative support.

Travel—Transportation, per diem, lodging, and other associated costs.

SOC/POC—USIO travel to SAS panel meetings, task force meetings, IO meetings, USIO meetings, workshops, and national and international meetings; Ocean Leadership and TAMU travel to port calls; LDEO travel to subcontractor site visits and professional training courses and meetings; and TAMU travel to insurance meetings.

Supplies—General office supplies and expendables and operational supplies.

SOC/POC—General office supplies, printer and copier supplies, and electronic media and other computer supplies with an acquisition cost of less than $1,000 (TAMU and Ocean Leadership).

Shipping—Postage, express mail, courier services, and freight.

SOC/POC—General postage and express mail/courier services for regular correspondence.

Communication—Telephone and fax charges.

SOC/POC—Standard telephone line charges, long distance charges, and fax charges.

Contractual Services—Consultant and contract services.

SOC/POC—Printing and copying of materials. Consultant services in support of network and video conferencing equipment (Ocean Leadership).

Equipment—Procurement, upgrading, or fabrication of equipment with an acquisition cost of more than $5,000, plus those items as defined by Ocean Leadership, Columbia University, or TAMRF policy.

SOC/POC—High-volume copier/scanner (TAMU).

Other Direct Costs—Costs not covered in other categories.

Training—Registration, transportation, per diem, and lodging expenses related to professional training.

SOC/POC—Registration and travel costs for professional training courses and meetings (TAMU).

Business Conferences—Incidental expenses associated with meetings hosted by the USIO.

SOC/POC—Expenses for refreshments provided for various business meetings and catering services occasionally required for on-site training and professional consultant services.

Insurance—Annual insurance premiums.

SOC/POC—Program’s portion of Director’s and Officer’s corporate insurance based on the number of officers at TAMRF, when compared to the TAMRF corporate total.

Services—Expert assistance.

SOC/POC—Lease on off-premises records storage facility, partial cost of other support services, visitor parking permits, printing services, TAMU Physical Plant services, and temporary labor.

TAMU Computing Services—Use of TAMU's financial and management information system (FAMIS).

SOC/POC—Program's share of costs based on lines of entry for use of FAMIS in conducting the fiscal activities of TAMU.

Equipment Rental—Rental of equipment when it is more economical to rent than purchase.

SOC/POC—Rental of equipment for conferences.

Furniture—Office furniture.

SOC/POC—Office furniture and storage cabinets for use in office and at external storage facilities.

Recruiting—Employee recruitment.

SOC/POC—Cost of newspaper and internet advertisements of vacant positions.

Maintenance and Repair—Maintenance agreements and equipment repairs.

SOC/POC—Equipment service agreements on copiers; replacement parts and service for fax machines, shredders, and so on.

Library—Books, journals, and other resources.

SOC/POC—Books, journals, resources, and subscriptions to professional materials.

Indirect Costs—Administrative and financial costs associated with operating the Program. The specific equations used to calculate these costs vary by institution, as explained below.

SOC/POC—

Ocean Leadership: The approved provisional rate of 31% was used to calculate Ocean Leadership general and administrative (G&A) costs. Each year, G&A costs are charged on all Ocean Leadership direct costs and on the first $100,000 of all subcontracts Ocean Leadership administers under a particular contract (e.g., total annual G&A on LDEO and TAMRF subcontracts = $62,000). The G&A costs for the two subcontracts (LDEO and TAMRF) are divided evenly between SOC G&A and POC G&A ($31,000 each = $15,500 SOC + $15,500 POC).

LDEO: For LDEO, indirect costs at 53% are assessed on all charges except permanent equipment. In addition, subcontracts are charged indirect costs on the first $25,000 of each contract. The indirect costs for subcontracts established prior to FY11 have already been paid, so these subcontracts are not subject to indirect cost during FY11. MTDCs are the total direct costs minus these exceptions.

TAMU: A negotiated administrative fee is paid to TAMRF in lieu of indirect costs for corporate administration of the Program, as established by the Ocean Leadership/TAMRF contract. This fee reimburses TAMRF for corporate activities in support of TAMU performed by staff members who are not direct charged to the Program (i.e., TAMRF staff members who work at the TAMRF corporate office). Examples of these services include but are not limited to vendor

activities (i.e., payment for goods and services, check processing, verification, and distribution); 1099 preparation and distribution, audit liaison, document scanning and storage; postage; management activities; and university/vendor liaison and payroll preparation and distribution. Use of corporate resources eliminates redundancy and reduces costs to IODP.

6. TECHNICAL, ENGINEERING, AND SCIENCE SUPPORT

6.1. GOALS

The USIO is responsible for providing scientific and operational planning and implementation for the USIO riserless drilling expeditions in response to the IODP science planning structure and interfacing with IODP-MI. The USIO will also provide formation temperature measurement services to the Center for Deep Earth Exploration (CDEX). The USIO will also provide technical advice and logistical assistance to the European Consortium for Ocean Research Drilling (ECORD) Science Operator (ESO) and CDEX for Schlumberger and other logging services for their expeditions in FY11.

Goals of the USIO for this WBE include planning, managing, coordinating, and performing the activities and providing the services, materials, platforms, and ship- and shore-based laboratories necessary to support all IODP USIO FY11 expeditions; conducting long-range operational planning for out-year USIO expeditions; and providing technical advice and assistance for ESO and CDEX expeditions.

6.2. DELIVERABLES IN FY11

- Expedition Planning and Implementation: Provide scientific, technical, and operational planning and execution for each scheduled expedition, including provision of a drilling platform. Conduct long-range operational and science planning for out-year expeditions.
- Reporting: Provide expedition-related reports and content for expedition publications (e.g., *Scientific Prospectus*, *Preliminary Report*, etc.). Act as a liaison to SAS and other panels and task forces as appropriate.
- Expedition Staffing: Provide selection and support for scientific staffing and Co-Chief Scientist selection for each scheduled USIO expedition. Provide support for shipboard and shore-based technical personnel and activities.
- Logistics Support: Provide for expedition and shore-based activities including procurement, shipping, and inventory of equipment and supplies.
- Analytical Systems: Support and maintain shipboard and shore-based analytical facilities, tools, instruments, and associated quality assurance/quality control (QA/QC) protocols. Ensure effective capture and transfer of expedition data to database systems.
- Logging: Provide for the delivery of logging services, including wireline fishing and back-off/severing services for each scheduled USIO expedition. Provide technical advice to ESO and CDEX for Schlumberger and other logging operations, and arrange for Schlumberger and other logging services for ESO and CDEX, where appropriate.
- Environmental Assessment: Provide for environmental assessment services for marine mammal permitting associated with seismic operations.
- Engineering Support: Provide engineering support for maintaining and developing shipboard and shore-based drilling, coring, logging, and downhole systems, including third-party developments and long–lead time borehole installation projects, for each scheduled USIO expedition. Provide formation temperature measurement services to CDEX for FY11 expeditions.

- Engineering Development: Drilling Sensor Sub—a three-phase continued development of the drilling sensor sub (DSS) tool to (1) measure drilling and coring parameters near the bit during operations, (2) save the data in onboard memory, and (3) wirelessly transmit the data to the retrievable memory module (RMM), which is recovered with the core and downloaded on the surface. Deliverables include two laboratory rig–validated prototype DSS-RMM tools ready for field trials in FY12, which includes both DSS calibration and laboratory rig testing and DSS-RMM laboratory rig testing.
- Legacy Documentation.

6.3. BUDGET

Technical, Engineering, and Science Support			
Element/Expense Category	**SOC**	**POC**	**Total**
Technical, Engineering, and Science Support			
Salaries and Fringes	231,197	6,542,011	6,773,208
Travel	57,901	763,387	821,288
Supplies	2,000	2,304,202	2,306,202
Shipping	4,397	704,340	708,737
Communication	1,905	313,395	315,300
Contractual Services	0	3,850,292	3,850,292
Equipment	0	1,166,350	1,166,350
Other Direct Costs	0	40,929,795	40,929,795
Day Rate	*0*	*29,673,500*	*29,673,500*
Fuel and Lubricants	*0*	*5,910,000*	*5,910,000*
Per Diem	*0*	*506,346*	*506,346*
Port Calls	*0*	*1,767,000*	*1,767,000*
Insurance	*0*	*1,387,364*	*1,387,364*
Travel—ODL	*0*	*595,000*	*595,000*
Other	*0*	*1,090,585*	*1,090,585*
Relocation	*0*	*26,500*	*26,500*
Training	*0*	*243,600*	*243,600*
Business Conferences	*0*	*13,000*	*13,000*
Insurance	*0*	*10,000*	*10,000*
Services	*0*	*535,525*	*535,525*
Other Expense—ODL	*0*	*30,000*	*30,000*
Furniture	*0*	*2,000*	*2,000*
Recruiting	*0*	*32,500*	*32,500*
Maintenance and Repair	*0*	*186,460*	*186,460*
Library	*0*	*11,000*	*11,000*
Total Direct Costs	297,400	56,573,772	56,871,172
Modified Total Direct Costs (if applicable)	283,400	856,365	1,139,765
Indirect Costs or Administrative Fees	150,202	453,873	604,075
Total Technical, Engineering, and Science Support	**$447,602**	**$57,027,645**	**$57,475,247**

Funds for this WBE are budgeted as follows:

Salaries and Fringes—Salaries, fringes, and sea pay, including an anticipated cost-of-living allowance and estimated fringe benefits rate.

SOC—Salaries and fringes for staff providing technical support during CDEX expeditions.

POC—Salaries and fringes for staff supporting the USIO (see **Section 3.2. USIO FTE Allocation Tables**).

Travel—Transportation, per diem, lodging, and other associated costs.

SOC—Travel for USIO staff who will sail on the *Chikyu* during CDEX expeditions.

POC—Travel to IODP meetings and workshops, pre-expedition and postexpedition meetings, and FY12 planning meetings; meetings with drilling equipment supply vendors; subcontract site visits; and travel costs for USIO staff who will work at port calls, sail on FY11 expeditions and transit, travel to the first FY12 expedition (Mid-Atlantic Microbiology), and/or serve as custodians during the maintenance period. Also includes LDEO travel to professional training courses and meetings.

Supplies—Office and operational supplies.

SOC—General office supplies; electronic media and other computer supplies with an acquisition cost of less than $1,000 (for TAMU); printer and copier supplies; laboratory, logistic, and shipping supplies for FY11 expeditions and shipboard and shore-based analytical and engineering laboratory and test facilities. Other drilling or science supplies may be purchased in support of USIO deliverables using cost avoidances gained during the fiscal year.

POC—General office supplies and operational, laboratory, logistic, and shipping supplies for FY11 expeditions. Other drilling or science supplies may be purchased in support of USIO deliverables using cost avoidances gained during the fiscal year.

Shipping—Postage, express mail, and freight.

SOC—Shipping of tools to the *Chikyu* for use during CDEX expeditions.

POC—Postage for regular correspondence and small packages and shipping to and from FY11 expeditions.

Communication—Satellite, telephone, and fax charges.

SOC—Standard telephone line, long distance, and fax charges.

POC—Standard telephone line, long distance, and fax charges. Cost for VSAT communication and Marisat communication to and from the *JOIDES Resolution.*

Contractual Services—Consultant and contract services.

SOC—None budgeted.

POC—Subcontract to members of the Logging Consortium (University of Montpellier, France; University of Leicester, United Kingdom; University of Aachen, Germany) to provide shipboard participation of Logging Staff Scientists, liaisons to selected panels as needed, and scientific support for Program planning and logging-related projects. Subcontract to Schlumberger for provision of a standard suite of tools, engineer services, software support, and mobilization services; specialty tools for use on individual cruises as needed; a dedicated engineer on the ship for each cruise and support from the base of operations; the services of a district engineer, staff engineer, electronics technician, and special services engineer on an as-needed basis (part-time to nearly full-time support); costs (including shipping charges) related to leasing equipment needed for wireline fishing, wireline fishing, back-off and severing services, the day rate and travel expenses for the Schlumberger engineer, and the day rate for tool insurance for the deployment of downhole logging tools. Other contracts provide test and calibration services for analytical equipment and downhole measurement tools. In addition, costs are budgeted for

contractual services associated with environmental assessment for marine mammal permitting associated with seismic operations.

***Equipment*—**Procurement, upgrading, or fabrication of equipment with an acquisition cost of more than $5,000, plus those items as defined by Ocean Leadership, Columbia University, or TAMRF policy.

SOC—None budgeted.

POC**—**Tools and equipment in support of logging operations and downhole measurement tool testing at the LDEO Environmental Stress Screening Facility and other facilities. Operational equipment replacement (e.g., APC, XCB, RCB standard and nonmagnetic wireline coring components, subs, crossovers, fishing tools, drill collars, coring line, and outer core barrel components) and acquisition of parts and spare units for temperature and other downhole measurement tools. Electronics for the superconducting rock magnetometer and expedition-required or SAS-recommended analytical equipment such as a resistivity meter or portable X-ray spectrophotometer; replacement of aging or irreparable analytical and support equipment, which could include Cahn electrobalances, Schonstedt thermal demagnetizer, DTech magnetizer, Impulse demagnetizer, obsolete gas chromatography/mass selective detector (GC/MSD), and obsolete low-definition video camera; and contingency for replacement of any failed analytical systems.

***Other Direct Costs*—**Costs not covered in other categories.

Day Rate—Vessel staffing for the subcontractor's sailing crew and drilling personnel.

SOC—None budgeted.

POC—Cost of staffing the ship, including the sailing crew and drilling personnel, but not including the cost of the USIO personnel or scientists aboard the ship. The day rate varies according to the mode of the ship, which is operating (drilling or cruising) or standing by (in port). Although it is a fixed rate per day, the day rate is adjusted for changes in the Consumer Price Index-Urban (CPI-U) and Employment Cost Index (ECI). The amount is based on 365 days, which includes an 85-day maintenance (tie-up) period (10 June–2 September 2011) in Galveston, Texas. The weighted average operating and standby day rates for the period are $81,900 and $79,900, respectively. The budget allows for one CPI-U base adjustment of 2.5% and one ECI base adjustment of 2.5%, both effective 1 April 2011.

Fuel and Lubricants—Fuel for the riserless vessel.

SOC—None budgeted.

POC—FY11 ship operations fuel purchases are estimated at a total of 7,300 metric tons: 400 metric tons in Papeete, Tahiti; 3,200 metric tons in Auckland, New Zealand (2 refuelings); 1,500 metric tons in Balboa, Panama; 1,800 metric tons in Galveston, Texas, prior to redeployment; and 400 metric tons in Bridgetown, Barbados. Refuelings are budgeted at $740 to $935 per metric ton, depending on location. Price per metric ton is based on prices quoted by Bunkerworld on 15 July 2010 for the locations specified, plus a 10% inflation factor.

Per Diem—Shipboard catering.

SOC—None budgeted.

POC—Costs associated with meals and berthing on the vessel and cleaning of the laboratory stack. The estimate is based on a shipboard party of 60 participants at $30/day/person for all

non-transit and non-maintenance periods. For transit periods, estimates are based on a shipboard party ranging from 8 to 40 at a cost per person of either $31 or $42 (per the catering contract, the cost per person increases when the shipboard party decreases during transits and tie-up). The cost during the maintenance (tie-up) period (10 June–2 September 2011) is based on 8 onboard IODP custodians at $31/day/person. Also included is approximately $3,400 for meals served during port calls (including tie-up) to all non-seagoing personnel. This category does not include per diem for the ship subcontractor's sailing crew and drilling personnel, as they are accounted for in the day rate unless charged as a reimbursable (see "Day Rate" above).

Port Calls—Vessel agent's expenses and subcontractor freight.

SOC—None budgeted.

POC—Port calls are scheduled for Papeete, Tahiti (4 days); Auckland, New Zealand (2 port calls at 5 days each); Puntarenas, Costa Rica (2 days); Balboa, Panama (4 days); Colon, Panama (1 day), Galveston, Texas (85 days for maintenance [tie-up] and redeployment); and Bridgetown, Barbados (4 days).

Insurance—Annual insurance premiums for Subcontractor and TAMRF.

SOC—None budgeted.

POC— Subcontractor's premium costs for All Risks Marine Hull and Machinery (H&M) and Removal of Wreck (ROW) insurance and TAMRF premium costs for General and Automobile Liability, Workers Compensation, Cargo, Third Party Property (Equipment), Excess Liability, Control of Well and Seepage and Pollution Liability, Charterers Legal Liability, and Contractor's Pollution Liability–Gradual coverage for the vessel. All premium amounts are based on 365 days of coverage with premiums for certain sections of the H&M insurance reduced by 50% during the maintenance (tie-up) period.

Travel–ODL—Subcontractor transportation.

SOC—None budgeted.

POC— Airfare for ship subcontractor's crews to/from 7 scheduled crew changes—Papeete, Tahiti; Auckland, New Zealand (2); Balboa, Panama; Galveston, Texas (2 during 85-day maintenance [tie-up] period); and Bridgetown, Barbados. The estimate is based on a crew of 60 personnel with various domestic and international origin fly points arriving and departing each port call. Expedition costs are based on round trip airfares for the ship subcontractor's sailing crew and drilling personnel to travel to the port call where the expedition begins and return from the port call where the expedition ends.

Relocation—Relocation costs for new employees.

SOC—None budgeted.

POC—Relocation costs for new employees (TAMU).

Training—Registration, transportation, per diem, and lodging expenses related to professional training and attendance at professional meetings.

SOC—None budgeted.

POC—Registration and travel costs for professional and safety training courses and meetings (TAMU).

Business Conferences—Incidental expenses associated with meetings hosted by the USIO.

SOC—None budgeted.

POC—Expenses for pre-expedition, postexpedition, and planning meetings; refreshments provided for various business meetings; and catering services occasionally required for on-site training and professional consultant services.

Insurance—Annual insurance premiums.

SOC—None budgeted.

POC—Annual insurance premiums for USIO vehicles.

Services—Expert assistance.

SOC—Annual physical examinations for seagoing personnel, copier services, external copying and printing services, vehicle and warehouse equipment repair, testing and calibration of laboratory instruments, and machine shop services.

POC—Annual physical examinations for seagoing personnel, copier services, vehicle and warehouse equipment repair, drill pipe maintenance, equipment testing and calibration, machine shop services, and weather analysis for Initial Proposal Evaluations.

Other Expenses—ODL—ODL costs not covered in other categories.

SOC—None budgeted.

POC—Costs for possible medical evacuations ($25,000) and miscellaneous reimbursables ($5,000) payable to the ship's subcontractor.

Furniture—Office furniture.

SOC—None budgeted.

POC—Replacing broken or aging office furniture and storage cabinets for use in office and at external storage facilities.

Recruiting—Employee recruitment.

SOC—None budgeted.

POC—Local advertisements, advertisements in science and trade journals, and other costs related to filling/replacing positions and recruiting professional staff.

Maintenance and Repair—Maintenance agreements and equipment repairs.

SOC—None budgeted.

POC—Maintenance and repair of office equipment, postage meter, vehicle fleet, equipment in warehouse, overhead cranes, other loading dock equipment, and laboratory and safety equipment.

Library—Books, journals, and other resources.

SOC—None budgeted.

POC—Technical books, journals, resources, and subscriptions to professional materials.

Indirect Costs—Administrative and financial costs associated with operating the Program.

SOC/POC—For LDEO, indirect costs at 53% are assessed on all charges except permanent equipment. In addition, subcontracts are charged indirect costs on the first $25,000 of each contract. The indirect costs for subcontracts established prior to FY11 have already been paid, so these subcontracts are not subject to indirect cost during FY11. MTDCs are the total direct costs minus these exceptions.

7. ENGINEERING DEVELOPMENT

7.1. GOALS

The USIO is responsible for utilizing IODP resources to oversee and/or provide engineering development projects in accordance with the long-term engineering needs of IODP as prioritized by the SAS.

7.2. DELIVERABLE IN FY11

Multisensor Magnetometer Module (MMM): A new magnetometer tool under development at LDEO (FY11 will be the second year of the project). The MMM will produce continuous records of the magnetic field in the borehole, from which magnetization and polarity of the rocks surrounding the borehole can be calculated. This downhole magnetic information will complement core sample magnetic measurements and significantly enhance IODP's ability to magnetostratigraphically date sediment sequences. Deliverables for this project include tool delivery, modifications to extend LDEO and Schlumberger telemetry systems and surface panel software, and completion of third-party tool certification requirements in FY11, followed by bench and field tests at the LDEO test well and sea deployment in FY12.

7.3. BUDGET

Engineering Development			
Element/Expense Category	**SOC**	**POC**	**Total**
Salaries and Fringes	50,269	0	50,269
Travel	7,500	0	7,500
Supplies	2,000	0	2,000
Shipping	2,500	0	2,500
Communication	500	0	500
Contractual Services	0	0	0
Equipment	0	0	0
Other Direct Costs	347	0	347
Services	*347*	*0*	347
Total Direct Costs	63,116	0	63,116
Modified Total Direct Costs (if applicable)	63,116	0	63,116
Indirect Costs or Administrative Fees	33,452	0	33,452
Total Engineering Development	**$96,568**	**$0**	**$96,568**

Funds for this WBE are budgeted as follows:

Salaries and Fringes—Salaries, fringes, and sea pay, including an anticipated cost-of-living allowance and estimated fringe benefits rate.

SOC/POC—Salaries and fringes for staff supporting the USIO (see **Section 3.2. USIO FTE Allocation Tables**).

Travel—Transportation, per diem, lodging, and other associated costs.

SOC—Travel for meetings with contractors and calibration tests of the MMM tool in the Schlumberger calibration facility for magnetic tools.

POC—None budgeted.

Supplies—Office and operational supplies.

SOC—Operational, logistic, and shipping supplies.

POC—None budgeted.

Shipping—Postage, express mail, and freight.

SOC—Shipment of the MMM tool for calibration at Schlumberger in Texas.

POC—None budgeted.

Communication—Satellite, telephone, and fax charges.

SOC—Standard telephone line, long distance, and fax charges.

POC—None budgeted.

Contractual Services—None budgeted.

Equipment—None budgeted.

Other Direct Costs—Costs not covered in other categories.

Indirect Costs—Administrative and financial costs associated with operating the Program.

SOC—Indirect costs at 53% are assessed on all charges except permanent equipment. In addition, subcontracts are charged indirect costs on the first $25,000 of each contract. The indirect costs for subcontracts established prior to FY11 have already been paid, so these subcontracts are not subject to indirect cost during FY11. MTDCs are the total direct costs minus these exceptions.

POC—None budgeted.

8. CORE CURATION

8.1. GOALS

USIO Core Curation goals include providing services in support of IODP core sampling and curation of the core collection archived at the Gulf Coast Repository (GCR).

8.2. DELIVERABLES IN FY11

- Policy and Procedures: Work with other IOs, the SAS, and IODP-MI to review and revise the IODP Sample, Data, and Obligations Policy, as needed, and implement a policy for IODP core curation. Work closely with staff to coordinate, standardize, and document curatorial procedures for IODP cores and samples.
- Sample and Curation Strategies: Plan sample and curation strategies for upcoming USIO expeditions and review all shipboard and moratorium-related requests in coordination with the other members of the Sample Allocation Committee (SAC) for each expedition.
- Sample Materials Curation System (SMCS): Work with IODP-MI and the other IOs to produce a design document for a successor to the SMCS system and test the new database during its development.
- Sample Requests: Respond to postmoratorium sample requests from the scientific community.
- Core Sampling: Provide curator specialist on board the drillship to supervise core sampling during ship operations.
- Core Curation: Conduct all responsibilities associated with curation of core collections at the GCR and provide services in support of core sampling, analysis, and education.
- Use of Core Collection: Promote outreach use of the core collection in collaboration with IODP-MI and IO education/outreach personnel by providing materials for display at meetings or museums, as well as conducting tours and supporting other USIO outreach activities.
- Meetings: Participate in annual IODP curatorial staff meeting. Act as IO liaison to meetings with the other IOs, IODP-MI, and the SAS, as appropriate.
- Legacy Documentation.

8.3. BUDGET

Core Curation			
Element/Expense Category	**SOC**	**POC**	**Total**
Core Curation			
Salaries and Fringes	276,125	85,375	361,500
Travel	33,000	11,000	44,000
Supplies	15,000	5,000	20,000
Shipping	18,750	6,250	25,000
Communication	2,625	875	3,500
Contractual Services	0	0	0
Equipment	0	0	0
Other Direct Costs	4,725	1,575	6,300
Training	*1,650*	*550*	2,200
Business Conferences	*300*	*100*	400
Services	*525*	*175*	700
Maintenance and Repair	*2,250*	*750*	3,000
Total Core Curation Direct Costs	350,225	110,075	460,300
Modified Total Direct Costs (if applicable)	0	0	0
Indirect Costs or Administrative Fees	0	0	0
Total Core Curation	**$350,225**	**$110,075**	**$460,300**

Funds for this WBE are budgeted as follows:

Salaries and Fringes—Salaries, fringes, and sea pay, including an estimated fringe benefits rate.

SOC/POC—Salaries, fringes, and sea pay for staff supporting the USIO (see **Section 3.2. USIO FTE Allocation Tables**).

Travel—Transportation, per diem, lodging, and other associated costs.

SOC/POC—Travel to IODP meetings and workshops, IO meetings, and USIO meetings, including an annual IODP Curators meeting; an AGU meeting; and travel costs for TAMU staff that will sail on FY11 expeditions.

Supplies—Office and operational supplies.

SOC/POC—General office supplies, printer supplies, general laboratory supplies, specialized supplies for sampling and curatorial tasks, and supplies for packing extra-large shipments, packing deep frozen microbiological shipments, and hosting sampling parties.

Shipping—Postage, express mail, and freight.

SOC/POC—Postage for regular correspondence, regular-sized sample shipments to scientists, and as many as 10 special sample shipments for FY11 (for deep-frozen microbiological samples, U-channels, or whole core sections for XRF scanning) at an average cost of $1,000 each.

Communication—Telephone and fax charges.

SOC/POC—Standard telephone line, long distance, cellular phone, and fax charges.

Contractual Services—None budgeted.

Equipment—None budgeted.

Other Direct Costs—Costs not covered in other categories.

Training—Registration, transportation, per diem, and lodging expenses related to professional training.

SOC/POC—Registration and travel costs for professional training courses and meetings (TAMU).

Business Conferences—Incidental expenses associated with meetings hosted by the USIO.

SOC/POC—Expenses for groups of scientists, educators, or others visiting GCR.

Services—Expert assistance.

SOC/POC—Annual physical examinations for seagoing personnel.

Maintenance and Repair—Maintenance agreements and equipment repairs.

SOC/POC—Repairs and maintenance for storage buildings; refrigeration units; deep freezers; laboratory, repository, and office equipment; forklift; and shrink-wrap machine.

9. DATA MANAGEMENT

9.1. GOALS

USIO Data Management goals include management of data supporting IODP activities, management of expedition and postexpedition data, provision of long-term archival access to data, supporting IT services, and providing database services for postmoratorium ESO and CDEX log data.

9.2. DELIVERABLES IN FY11

- Expedition Data: Maintain and manage databases supporting expedition planning and data collected during expeditions. Operate and maintain data management and harvesting systems (including QA/QC for storage and archival of expedition and postexpedition data, including core and sample tracking). Respond to data requests from the scientific community. Process downhole log data. Provide database services for postmoratorium ESO and CDEX log data.
- Program-wide Access Portal: Generate USIO metadata for IODP Program-wide access portal and develop Web services to deliver data in response to external queries.
- Operation and Maintenance: Operate and maintain computer and network systems both on ship and shore.
- Security: Monitor and protect USIO network and server resources to ensure safe, reliable operation and security for IODP data and IT resources.
- Software Development: Provide software development services as needed (excluding analytical systems), maintain software, and provide training support for shipboard scientists as necessary.
- Legacy Documentation.

9.3. BUDGET

Data Management			
Element/Expense Category	**SOC**	**POC**	**Total**
Salaries and Fringes	642,437	1,219,983	1,862,420
Travel	25,390	74,688	100,078
Supplies	24,640	50,460	75,100
Shipping	1,165	1,835	3,000
Communication	7,940	20,760	28,700
Contractual Services	0	0	0
Equipment	44,850	114,150	159,000
Other Direct Costs	146,890	306,580	453,470
Relocation	*3,000*	*1,000*	*4,000*
Training	*27,125*	*37,375*	*64,500*
Business Conferences	*100*	*300*	*400*
Software	*18,750*	*56,250*	*75,000*
Services	*30,465*	*21,705*	*52,170*
Recruiting	*3,750*	*1,250*	*5,000*
Maintenance and Repair	*62,500*	*187,500*	*250,000*
Library	*1,200*	*1,200*	*2,400*
Total Direct Costs	893,312	1,788,456	2,681,768
Modified Total Direct Costs (if applicable)	175,272	413,776	589,048
Indirect Costs or Administrative Fees	92,894	219,301	312,195
Total Data Management	**$986,206**	**$2,007,757**	**$2,993,963**

Funds for this WBE are budgeted as follows:

Salaries and Fringes—Salaries, fringes, and sea pay, including an anticipated cost-of-living allowance and estimated fringe benefits rate.

SOC/POC—Salaries and fringes for staff supporting the USIO (see **Section 3.2. USIO FTE Allocation Tables**).

Travel—Transportation, per diem, lodging, and other associated costs.

SOC—Travel to IODP meetings and travel costs for USIO staff who will work at port calls and sail on FY11 expeditions and transit. Also includes LDEO travel to professional training courses and meetings.

POC—Travel costs for USIO staff who will work at port calls and sail on FY11 expeditions and transit. Also includes LDEO travel to professional training courses and meetings.

Supplies—Office and operational supplies.

SOC—General office supplies; electronic media and other computer supplies with an acquisition cost of less than $1,000 (for TAMU) and $5,000 (for LDEO), including printers, laptops, tablet computers, and monitors (LDEO); printer and copier supplies; paper; expendables and small hardware necessary for continued operation and maintenance of IT resources; digital photographic supplies (e.g., drum scanner supplies, CDs, DVDs, and tapes) for processing images on shore; and software for all shore-based elements at LDEO.

POC—General office supplies and electronic media and other computer supplies with an acquisition cost of less than $1,000 (for TAMU) and $5,000 (for LDEO), including printers, laptops, tablet computers, and monitors (LDEO). Other data management supplies may be purchased in support of USIO deliverables using cost avoidances gained during the fiscal year.

Shipping—Postage, express mail, and freight.

SOC—Postage for regular correspondence and small packages, data and photo requests, and other shipping needs.

POC—Postage for regular correspondence and small packages.

Communication—Telephone and fax charges.

SOC/POC—Standard telephone line, long distance, cellular phone, and fax charges.

Contractual Services—None budgeted.

Equipment—Procurement, upgrading, or fabrication of equipment with an acquisition cost of more than $5,000, plus those items as defined by Ocean Leadership, Columbia University, or TAMRF policy.

SOC/POC—Computer and network equipment to replace aged network models, workstations, and plotters, and new workstations for new staff.

Other Direct Costs—Costs not covered in other categories.

Relocation—Relocation costs for new employees.

SOC/POC—Relocation costs for new employees (TAMU).

Training—Registration, transportation, per diem, and lodging expenses related to professional training.

SOC/POC—Registration and associated travel costs for professional training courses and meetings (TAMU). Registration for professional training courses and meetings (LDEO).

Business Conferences—Incidental expenses associated with meetings hosted by the USIO.

SOC/POC—Expenses for refreshments provided for various business meetings and catering services occasionally required for on-site training and professional consultant services.

Software—Software purchases and upgrades.

SOC/POC—Software subscriptions, volume licensing agreements, and concurrent usage software agreements used in support of continuing activities and systems maintenance for the entire enterprise (TAMU).

Services—Expert assistance.

SOC—Rental for storage of paper prime data, annual physical examinations for seagoing personnel, TAMU Physical Plant services, IT expert assistance services, copier services, external copying and printing services, safe deposit box rentals, and back-up services.

POC—Annual physical examinations for seagoing personnel, TAMU Physical Plant services, IT expert assistance services, safe deposit boxes, and copier services.

Recruiting—Employee recruitment.

SOC/POC—Cost of newspaper and internet advertisements of vacant positions.

Maintenance and Repair—Maintenance agreements and equipment repairs.

SOC/POC—Departmental copier maintenance agreements, various maintenance contracts and repairs for IT computer hardware and software, and noncontracted maintenance on imaging equipment such as cameras.

Library—Books, journals, and other resources.

SOC/POC—Books, professional publications, and documentation materials required for reference.

Indirect Costs—Administrative and financial costs associated with operating the Program.

SOC/POC— For LDEO, indirect costs at 53% are assessed on all charges except permanent equipment. In addition, subcontracts are charged indirect costs on the first $25,000 of each contract. The indirect costs for subcontracts established prior to FY11 have already been paid, so these subcontracts are not subject to indirect cost during FY11. MTDCs are the total direct costs minus these exceptions.

10. PUBLICATIONS

10.1. GOALS

USIO Publications goals include providing publications support services for IODP riserless and riser drilling expeditions; editing, production, and graphics services for all required reports and scientific publications as defined in the USIO contract with IODP-MI; and warehousing and distribution of IODP, ODP, and Deep Sea Drilling Project (DSDP) publications.

IODP publications include Quarterly and Annual Reports for the USIO; a *Scientific Prospectus* and *Preliminary Report* for each USIO, CDEX, and ESO expedition; and *Proceedings of the Integrated Ocean Drilling Program* volumes for USIO, CDEX, and ESO expeditions. CDEX and ESO reports and publications are produced according to prescribed schedules that commence upon receipt of content by the USIO.

10.2. DELIVERABLES IN FY11

- IODP Publications: Advise IODP-MI on scientific publication efforts. The following publications will be published or in production:
  - ~20 scientific reports (*Scientific Prospectuses* and *Preliminary Reports*);
  - 17 *Proceedings of the Integrated Ocean Drilling Program* volumes covering expedition reports content from 18 IODP expeditions (12 USIO expeditions, 4 CDEX expeditions, and 2 ESO expeditions); and
  - 10 *Proceedings* volumes covering postexpedition data reports and synthesis papers from 13 IODP expeditions (6 USIO expeditions, 5 CDEX expeditions, and 2 ESO expeditions).
- IODP Reports: The following reports will be edited and produced:
  - 4 IODP-USIO quarterly reports;
  - 2 IODP-USIO Annual Program Plans (IODP-MI [SOC/POC] and NSF [POC/OPIC with SOC Appendix]), including original versions and all revisions required by funding agencies; and
  - 1 IODP-USIO FY10 Annual Report (or other year-end document).
- Report of Program-related citation statistics.
- Management:
  - Manage postexpedition publication citations,
  - Manage peer review process for IODP *Proceedings* volumes (~25 data reports or synthesis papers),
  - Provide distribution and warehousing for IODP *Proceedings* volumes (and ODP and DSDP publications and reports), and
  - Provide centralized record keeping of IODP postexpedition research submissions.
- Publications Support: Provide a Publications Specialist for publications support and report coordination during 5 USIO and 2 CDEX expeditions and editorial, graphics, and production support during 8 postexpedition meetings.
- Legacy and Technical Documentation.

10.3. BUDGET

Publications			
Element/Expense Category	**SOC**	**POC**	**Total**
Salaries and Fringes	1,323,000	64,000	1,387,000
Travel	26,000	30,000	56,000
Supplies	38,000	0	38,000
Shipping	21,000	0	21,000
Communication	8,000	0	8,000
Contractual Services	0	0	0
Equipment	0	0	0
Other Direct Costs	43,000	0	43,000
Training	*16,500*	*0*	*16,500*
Business Conferences	*5,000*	*0*	*5,000*
Services	*18,000*	*0*	*18,000*
Equipment Rental	*300*	*0*	*300*
Maintenance and Repair	*1,300*	*0*	*1,300*
Library	*1,900*	*0*	*1,900*
Total Direct Costs	1,459,000	94,000	1,553,000
Modified Total Direct Costs (if applicable)	0	0	0
Indirect Costs or Administrative Fees	0	0	0
Total Publications	**$1,459,000**	**$94,000**	**$1,553,000**

Funds for this WBE are budgeted as follows:

Salaries and Fringes—Salaries, fringes, and sea pay, including an estimated fringe benefits rate.

SOC—Salaries and fringes for staff supporting the USIO (see **Section 3.2. USIO FTE Allocation Tables**) and for USIO staff providing Publications Assistant support for CDEX expeditions.

POC—Salaries and fringes for staff supporting the USIO (see **Section 3.2. USIO FTE Allocation Tables**).

Travel—Transportation, per diem, lodging, and other associated costs.

SOC—Travel costs for IO and USIO meetings, to bring off-site USIO staff to participate in on-site meetings, and for USIO staff to provide Publications Assistant support for CDEX IODP expeditions.

POC—Travel costs for USIO staff who will work at port calls and/or sail on FY11 expeditions.

Supplies—Office and operational supplies.

SOC—General office supplies.

POC—None budgeted.

Shipping—Postage, express mail, and freight.

SOC—Postage and shipping for regular correspondence, IODP scientific reports, and *Proceedings of the Integrated Ocean Drilling Program* volume DVDs with Expedition Reports content, and freight charges for bulk shipments to and from the publications warehouse.

POC—None budgeted.

Communication—Telephone and fax charges.

SOC—Standard telephone line, long distance, and fax charges.

POC—None budgeted.

Contractual Services—None budgeted.

Equipment—None budgeted.

Other Direct Costs—Costs not covered in other categories.

*Training***—**Registration, transportation, per diem, lodging expenses, and membership dues related to professional training.

SOC—Registration and travel costs for professional training courses and meetings.

POC—None budgeted.

Business Conferences—Incidental expenses associated with meetings hosted by the USIO.

SOC—Meal expenses related to hosting meetings.

POC—None budgeted.

Services—Expert assistance.

SOC—Duplication costs for producing *Proceedings of the Integrated Ocean Drilling Program* volume DVDs with Expedition Reports content and annual physical examinations for seagoing personnel.

POC—None budgeted.

Equipment Rental—Rental of equipment when it is more economical to rent than purchase.

SOC—Water cooler rental.

POC—None budgeted.

Maintenance and Repair—Maintenance agreements and equipment repairs.

SOC—Copier repairs and forklift maintenance agreement.

POC—None budgeted.

Library—Books, journals, and other resources.

SOC—Reference books and subscriptions.

POC—None budgeted.

11. EDUCATION

11.1. GOALS

USIO Education responsibilities include developing and disseminating expedition-specific and thematic education activities and materials for elementary through post-secondary and free-choice learning audiences, and promoting diversity programs and partnerships to provide learning opportunities, mentoring, fellowships, and other horizon-building experiences for minority students to explore careers in the Earth System sciences. Expedition-specific activities will include current expeditions and supporting legacy resources.

The USIO, through Deep Earth Academy, will facilitate U.S. education activities in cooperation with other U.S. education and outreach groups; conduct teacher education activities; and develop, test, and disseminate educational curriculum highlighting IODP science programs. Deep Earth Academy will also implement live and near-real-time programs highlighting and using the *JOIDES Resolution* as a platform for education. These activities require direct and indirect interfacing with students and educators through a variety of activities targeting U.S. middle-school, high-school, undergraduate, family, and museum audiences.

11.2. DELIVERABLES IN FY11

No SOC/POC deliverables are scheduled for FY11.

11.3. BUDGET

With no deliverables scheduled in FY11, there are no funds budgeted for this WBE.

12. OUTREACH

12.1. GOALS

USIO Outreach responsibilities include establishing measures to effectively communicate both shore- and ship-based components of IODP activities to the public in collaboration with IODP-MI and the other IOs, and encouraging awareness of and interest in the scientific results of the Program. Outreach goals for FY11 include the following:

- Raise the visibility of IODP as a cutting-edge international earth science research program to new and existing audiences.
- Target informational outreach to members of the general public; science and general-interest media; scientists and engineers from both within the IODP community and beyond; and decision makers at large national concerns.
- Use expeditions and scientific achievements to promote scientific ocean drilling and the scientific data and analysis that emerge from it, and make the connection between the emerging scientific knowledge and its positive contribution to society worldwide.
- Build a foundation of knowledge about scientific ocean drilling (e.g., its achievements, merits, spectrum of national contributions, and high value to future scientific achievement) that is easily accessible to the public and other targeted communities online, in forums and meetings, and in the media.
- Actively collaborate and cooperate with others conducting IODP outreach around the globe.

12.2. DELIVERABLES IN FY11

SOC-related activities include portions of support for the following deliverables:

- Media Outreach and Public Outreach: Conduct media and general public outreach related to ongoing *JOIDES Resolution* operations, as well as at major science meetings both in the United States and abroad (as appropriate), and in support of Program scientists' publications in high-profile science journals. Leverage online and other tools to proactively tell the IODP "story" in as many compelling ways, for as many diverse audiences, across as many communications platforms as possible, to raise the overall visibility and positive image of IODP.
- Traditional and Social Media Training: Provide traditional media and social media training for Co-Chief Scientists and Science Party members of all *JOIDES Resolution* expeditions; provide similar training as appropriate for other members of the IODP community.
- Global Outreach Activities: Coordinate outreach activities with other IODP entities around the globe, including IODP-MI, ECORD, and CDEX.
- Legacy Documentation.

12.3. BUDGET

Outreach			
Element/Expense Category	**SOC**	**POC**	**Total**
Salaries and Fringes	30,545	0	30,545
Travel	10,000	0	10,000
Supplies	6,375	0	6,375
Shipping	1,070	0	1,070
Communication	987	0	987
Contractual Services	23,000	0	23,000
Equipment	0	0	0
Other Direct Costs	0	0	0
Services	*0*	*0*	*0*
Total Direct Costs	71,977	0	71,977
Modified Total Direct Costs (if applicable)	0	0	0
Indirect Costs or Administrative Fees	22,313	0	22,313
Total Outreach	**$94,290**	**$0**	**$94,290**

Funds for this WBE are budgeted as follows:

Salaries and Fringes—Salaries and fringes, including an anticipated cost-of-living allowance and estimated fringe benefits rate.

SOC—Salaries and fringes for staff supporting the USIO (see **Section 3.2. USIO FTE Allocation Tables**).

POC—None budgeted.

Travel—Transportation, per diem, lodging, and other associated costs.

SOC—A portion of the cost of participating in outreach to stakeholders, press events, media training, and staffing of booths at national and international meetings.

POC—None budgeted.

Supplies—Office and operational supplies.

SOC—General office supplies, printer and copier supplies, and electronic media and other computer supplies with an acquisition cost of less than $1,000.

POC—None budgeted.

Shipping—Postage, express mail, and freight.

SOC—General postage and express mail/courier services for regular correspondence.

POC—None budgeted.

Communication—Telephone and fax charges.

SOC—Standard telephone line charges, long distance charges, and fax charges.

POC—None budgeted.

Contractual Services—Consultant and contract services.

SOC—Platform enrichment activities, including preparation of public relations materials, posters, and videos; media training; and booth rentals and associated costs at national meetings.

POC—None budgeted.

Equipment—None budgeted.

Other Direct Costs—None budgeted.

Indirect Costs—Administrative and financial costs associated with operating the Program.

SOC—The approved provisional rate of 31% was used to calculate Ocean Leadership G&A costs. Each year, G&A costs are charged on all Ocean Leadership direct costs and on the first $100,000 of all subcontracts Ocean Leadership administers under a particular contract (e.g., total annual G&A on TAMRF and LDEO subcontracts = $62,000). The G&A costs for the two subcontracts (LDEO and TAMRF) are divided evenly between SOC G&A and POC G&A ($31,000 each = $15,500 SOC + $15,500 POC).

POC—None budgeted.