INTEGRATED OCEAN DRILLING PROGRAM
United States Implementing Organization

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

FY13 ANNUAL PROGRAM PLAN to IODP-MI

For Time Period
1 October 2012 to 30 September 2013

Amount Proposed FY13: $70,233,920 (SOC and POC)
Amount Proposed FY13: $2,991,353 (SOC)
Amount Proposed FY13: $67,242,567 (POC)

Integrated Ocean Drilling Program
United States Implementing Organization

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Respectfully Submitted to:
IODP Management International, Inc.

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

TABLE OF CONTENTS

1. EXECUTIVE SUMMARY 5
1.1. Annual Program Plan Overview 5
1.2. USIO FY13 Activities 6
1.2.1. Summary of FY13 USIO Scope 6
1.3. USIO Budget Definitions 6
1.3.1. FY13 USIO Budget Assumptions 6
1.3.2. USIO Budget Structure 6

2. FY13 USIO BUDGET SUMMARY TABLES 7
2.1. Introduction 7
2.2. FY13 USIO SOC/POC WBE Budget Summary 7
2.3. FY13 USIO SOC/POC WBE Budget Detail 8
2.4. USIO Budget Three-Year View 11

3. ORGANIZATIONAL STRUCTURE 12
3.1. Introduction 12
3.2. USIO FTE Allocation Tables 12
3.2.1. FY13 USIO FTE Allocation Summary 12
3.2.2. FY13 USIO FTE Allocation Detail 13

4. EXPEDITION OPERATIONS 21
4.1. Introduction 21
4.2. Operations 21
4.2.1. Expedition 344: Costa Rica Seismogenesis Project 2 21
4.2.2. Expedition 345: Hess Deep Plutonic Crust 21
4.2.3. SCIMPI Test Deployment 22
4.2.4. Expedition 341: Southern Alaska Margin Tectonics, Climate, and Sedimentation 22
4.2.5. Expedition 346: Asian Monsoon 23
4.3. IODP-USIO FY13 Site Map 23
4.4. Expedition Operations Budget 24

5. MANAGEMENT AND ADMINISTRATION 29
5.1. Goals 29
5.2. Deliverables in FY13 29
5.3. Budget 29

6. TECHNICAL, ENGINEERING, AND SCIENCE SUPPORT 33
6.1. Goals 33
6.2. Deliverables in FY13 33
6.3. Budget 34

7. ENGINEERING DEVELOPMENT 40
7.1. Goals 40
7.2. Deliverable in FY13 40
7.3. Budget 40

8. CORE CURATION 41
8.1. Goals 42
8.2. Deliverables in FY13 42
8.3. Budget 42
9. DATA MANAGEMENT 44
9.1. Goals 44
9.2. Deliverables in FY13 44
9.3. Budget 44
10. PUBLICATIONS 47
10.1. Goals 47
10.2. Deliverables in FY13 47
10.3. Budget 48
11. EDUCATION 50
11.1. Goals 50
11.2. Deliverables in FY13 50
11.3. Budget 50
12. OUTREACH 51
12.1. Goals 51
12.2. Deliverables in FY13 51
12.3. Budget 51

1. EXECUTIVE SUMMARY

1.1. ANNUAL PROGRAM PLAN OVERVIEW

The USIO FY13 Annual Program Plan to Integrated Ocean Drilling Program Management International, Inc. (IODP-MI) defines the U.S. Implementing Organization (USIO) scope of work for Integrated Ocean Drilling Program (IODP) activities and deliverables for the FY13 fiscal year. It is based on (1) the current mission forecast provided on 20 March 2012 for the USIO by the U.S. National Science Foundation (NSF), (2) the USIO operations schedule that was approved by the Operations Task Force (OTF) and Science Planning Committee in August 2010, and (3) the June 2011 OTF. 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 FY12 Annual Program Plan to IODP-MI was developed in consultation with the USIO subcontractors for inclusion in the IODP FY13 Annual Program Plan.

IODP-MI, with input from IODP funding agencies, provided guidance and instruction to the USIO on preparation of the USIO contribution to the IODP FY13 Annual Program Plan. The USIO FY13 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 provision of downhole logging equipment and engineering support.

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

1.2. USIO FY13 ACTIVITIES

1.2.1. Summary of FY13 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. FY13 USIO Budget Assumptions

The USIO has provided our best-effort estimate of FY13 costs in this plan. If additional funds are identified or cost avoidances gained during the fiscal year, the USIO may use them to 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 FY13 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 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 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 FY13 is a request to IODP-MI for $2,991,353 in SOC expenses and a request to NSF for $67,242,567 in POC expenses for all other USIO operations (submitted in the FY13 Annual Program Plan to NSF).

2. FY13 USIO BUDGET SUMMARY TABLES

2.1. INTRODUCTION

The budget summaries and detailed budgets in this section describe the overall USIO FY13 SOC and 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. FY13 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. FY13 USIO SOC/POC WBE Budget Detail provides an integrated view of all the budget requests detailed in the WBE sections of the IODP-USIO FY13 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 FY13 budget requests to FY11 and FY12 costs, showing costs broken down by WBE and expense category.

2.2. FY13 USIO SOC/POC WBE BUDGET SUMMARY

Element	SOC	POC	Total
Management and Administration	541,691	3,954,364	4,496,055
Technical, Engineering, and Science Support	0	60,545,996	60,545,996
Engineering Development	0	99,750	99,750
Core Curation	388,738	133,937	522,675
Data Management	771,059	2,423,680	3,194,739
Publications	1,289,865	84,840	1,374,705
Education	0	0	0
Outreach	0	0	0
Total FY13 USIO SOC/POC Budget	**$2,991,353**	**$67,242,567**	**$70,233,920**
Total Direct Costs	2,728,971	65,543,252	68,272,223
Indirect Costs and Administrative Fees	262,382	1,699,315	1,961,697
Grant Total FY13 USIO SOC/POC Budget	**$2,991,353**	**$67,242,567**	**$70,233,920**

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.

2.3. FY13 USIO SOC/POC WBE BUDGET DETAIL

Element/Expense Category	SOC	POC	Total
Management and Administration			
Salaries and Fringes	296,986	2,644,410	2,941,396
Travel	19,204	212,032	231,236
Supplies	2,525	26,975	29,500
Shipping	1,171	7,829	9,000
Communication	6,990	47,890	54,880
Contractual Services	0	0	0
Equipment	50	950	1,000
Other Direct Costs	4,985	153,750	158,735
Total Direct Costs	331,911	3,093,836	3,425,747
Modified Total Direct Costs (if applicable)	68,515	483,616	552,131
Indirect Costs or Administrative Fees	209,780	860,528	1,070,308
Total Management and Administration	**$541,691**	**$3,954,364**	**$4,496,055**
Technical, Engineering, and Science Support			
Salaries and Fringes	0	6,995,982	6,995,982
Travel	0	1,150,776	1,150,776
Supplies	0	2,207,299	2,207,299
Shipping	0	948,567	948,567
Communication	0	270,145	270,145
Contractual Services	0	3,873,523	3,873,523
Equipment	0	1,102,500	1,102,500
Other Direct Costs	0	43,449,450	43,449,450
Day Rate	*0*	*30,952,267*	*30,952,267*
Fuel and Lubricants	*0*	*6,530,864*	*6,530,864*
Per Diem	*0*	*581,457*	*581,457*
Port Calls	*0*	*1,768,000*	*1,768,000*
Insurance	*0*	*1,835,427*	*1,835,427*
Travel—ODL	*0*	*1,015,070*	*1,015,070*
Other	*0*	*766,365*	766,365
Total Direct Costs	0	59,998,242	59,998,242
Modified Total Direct Costs (if applicable)	0	1,033,498	1,033,498
Indirect Costs or Administrative Fees	0	547,754	547,754
Total Technical, Engineering, and Science Support	**$0**	**$60,545,996**	**$60,545,996**
Engineering Development			
Salaries and Fringes	0	0	0
Travel	0	44,000	44,000
Supplies	0	3,000	3,000
Shipping	0	0	0
Communication	0	3,000	3,000
Contractual Services	0	25,000	25,000
Equipment	0	0	0
Other Direct Costs	0	0	0
Total Direct Costs	0	75,000	75,000
Modified Total Direct Costs (if applicable)	0	0	0
Indirect Costs or Administrative Fees	0	24,750	24,750
Total Engineering Development	**$0**	**$99,750**	**$99,750**

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

FY13 USIO SOC/POC WBE BUDGET DETAIL (CONTINUED)

Element/Expense Category	SOC	POC	Total
Core Curation			
Salaries and Fringes	280,925	94,249	375,174
Travel	46,125	15,375	61,500
Supplies	26,250	8,750	35,000
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	14,063	8,438	22,501
Total Direct Costs	388,738	133,937	522,675
Modified Total Direct Costs (if applicable)	0	0	0
Indirect Costs or Administrative Fees	0	0	0
Total Core Curation	**$388,738**	**$133,937**	**$522,675**
Data Management			
Salaries and Fringes	509,236	1,462,691	1,971,927
Travel	40,955	107,979	148,934
Supplies	15,460	38,940	54,400
Shipping	1,135	2,065	3,200
Communication	6,815	25,965	32,780
Contractual Services	0	0	0
Equipment	55,477	145,430	200,907
Other Direct Costs	89,379	374,327	463,706
Total Direct Costs	718,457	2,157,397	2,875,854
Modified Total Direct Costs (if applicable)	99,250	502,422	601,672
Indirect Costs or Administrative Fees	52,602	266,283	318,885
Total Data Management	**$771,059**	**$2,423,680**	**$3,194,739**
Publications			
Salaries and Fringes	1,198,390	64,840	1,263,230
Travel	40,400	20,000	60,400
Supplies	30,150	0	30,150
Shipping	3,400	0	3,400
Communication	8,000	0	8,000
Contractual Services	0	0	0
Equipment	0	0	0
Other Direct Costs	9,525	0	9,525
Total Direct Costs	1,289,865	84,840	1,374,705
Modified Total Direct Costs (if applicable)	0	0	0
Indirect Costs or Administrative Fees	0	0	0
Total Publications	**$1,289,865**	**$84,840**	**$1,374,705**

(Continued on next page.)

FY13 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	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 Outreach	**$0**	**$0**	**$0**
Grand Total Direct Costs	2,728,971	65,543,252	68,272,223
Grand Total Indirect Costs/Administrative Fee	262,382	1,699,315	1,961,697
TOTAL FY13 SOC/POC BUDGET	**$2,991,353**	**$67,242,567**	**$70,233,920**

2.4. USIO BUDGET THREE-YEAR VIEW

3-Year View

Work Breakdown Element	Expense Category	FY10 Breakdown				FY11 Breakdown				FY12 Breakdown			
		Budget	%	POC	SOC	Budget	%	POC	SOC	Budget	%	POC	SOC
Management and Administration	Salaries and Fringe	2,965,305	83.46%	88.17%	11.83%	2,976,737	84.86%	87.85%	12.15%	2,941,396	85.86%	89.90%	10.10%
	Travel	294,351	8.28%	88.20%	11.80%	261,419	7.45%	87.60%	12.40%	231,236	6.75%	91.70%	8.30%
	Other Direct Costs	293,324	8.26%	88.91%	11.09%	269,640	7.69%	90.19%	9.81%	253,115	7.39%	93.79%	6.21%
	Subtotal	$3,552,980	100.00%	88.24%	11.76%	$3,507,796	100.00%	88.01%	11.99%	$3,425,747	100.00%	90.31%	9.69%
Technical, Engineering, and Science Services	Salaries and Fringe	6,773,208	11.91%	96.59%	3.41%	7,179,811	11.91%	96.85%	3.15%	6,995,982	11.49%	100.00%	0.00%
	Day Rate	29,673,500	52.18%	100.00%	0.00%	30,185,638	50.07%	92.32%	7.68%	30,952,267	50.18%	100.00%	0.00%
	Contractual Services	3,850,292	6.77%	100.00%	0.00%	3,927,042	6.51%	100.00%	0.00%	3,873,523	6.31%	100.00%	0.00%
	Supplies	2,306,202	4.06%	99.91%	0.09%	1,899,450	3.15%	99.89%	0.11%	2,207,299	3.59%	100.00%	0.00%
	Other Direct Costs	14,267,970	25.09%	99.55%	0.45%	17,090,705	28.35%	99.67%	0.33%	15,969,171	28.44%	100.00%	0.00%
	Subtotal	$56,871,172	100.00%	99.48%	0.52%	$60,282,646	100.00%	95.68%	4.32%	$59,998,242	100.00%	100.00%	0.00%
Engineering Development	Salaries and Fringe	50,269	0.00%	0.00%	100.00%	21,940	19.43%	0.00%	100.00%	0	0.00%	0.00%	0.00%
	Other Direct Costs	12,847	0.00%	0.00%	100.00%	90,968	80.57%	82.45%	17.55%	75,000	100.00%	100.00%	0.00%
	Subtotal	$63,116	0.00%	0.00%	100.00%	$112,908	100.00%	66.43%	33.57%	$75,000	100.00%	100.00%	0.00%
Core Curation	Salaries and Fringe	361,500	78.54%	23.62%	76.38%	365,000	70.72%	23.56%	76.44%	375,174	71.78%	25.12%	74.88%
	Other Direct Costs	98,800	21.46%	25.00%	75.00%	151,150	29.28%	25.33%	74.67%	147,501	28.22%	26.91%	73.09%
	Subtotal	$460,300	100.00%	23.91%	76.09%	$516,150	100.00%	24.08%	75.92%	$522,675	100.00%	25.63%	74.37%
Data Management	Salaries and Fringe	1,862,420	69.45%	65.51%	34.49%	1,947,234	66.87%	65.73%	34.27%	1,971,927	68.57%	74.18%	25.82%
	Other Direct Costs	819,348	30.55%	69.38%	30.62%	964,818	33.13%	69.59%	30.41%	903,927	31.43%	76.85%	23.15%
	Subtotal	$2,681,768	100.00%	66.69%	33.31%	$2,912,052	100.00%	67.01%	32.99%	$2,875,854	100.00%	75.02%	24.98%
Publications	Salaries and Fringe	1,387,000	89.31%	4.61%	95.39%	1,438,999	89.01%	6.45%	93.55%	1,263,230	91.89%	5.13%	94.87%
	Other Direct Costs	166,000	10.69%	18.07%	81.93%	177,650	10.99%	11.26%	88.74%	111,475	8.11%	17.94%	82.06%
	Subtotal	$1,553,000	100.00%	6.05%	93.95%	$1,616,649	100.00%	6.98%	93.02%	$1,374,705	100.00%	6.17%	93.83%
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	30,545	42.44%	0.00%	100.00%	33,132	44.75%	0.00%	100.00%	0	0.00%	0.00%	0.00%
	Other Direct Costs	41,432	57.56%	0.00%	100.00%	40,900	55.25%	0.00%	100.00%	0	0.00%	0.00%	0.00%
	Subtotal	$71,977	100.00%	0.00%	100.00%	$74,032	100.00%	0.00%	100.00%	$0	0.00%	0.00%	0.00%
Total Direct Costs		**$65,254,313**				**$69,022,233**				**$68,272,223**			

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 18 June 2012, plus projected FTEs for FY13. 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. FY13 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. FY13 USIO FTE Allocation Summary

SOC- and POC-supported FTEs 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	0.00	4.13
LDEO	4.00	8.72	0.00	0.00	4.71	0.00	0.00	0.00	17.43
TAMU	4.50	63.00	0.00	3.90	18.00	19.00	0.00	0.00	108.40
Totals	**12.63**	**71.72**	**0.00**	**3.90**	**22.71**	**19.00**	**0.00**	**0.00**	**129.95**

Total FTEs by Expense Category				
USIO Office	**SOC**	**NSF**	**Other**	**Total**
Ocean Leadership	0.81	3.31	3.08	7.20
LDEO	3.44	13.98	0.00	17.43
TAMU	23.43	84.97	0.10	108.50
Totals	**27.68**	**102.27**	**3.18**	**133.13**

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.

3.2.2. FY13 USIO FTE Allocation Detail

Position			% Work Breakdown Elements (SOC- and POC-supported FTEs)									% 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%
Colin Reed	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%	18.75%	81.25%	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%
Matthew Wright	Manager, Communications	Ocean Leadership	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	75%	75%
Leslie Peart	Director, Education	Ocean Leadership	0%	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%	0%	100%	100%
Jessie Swanseen	Administrative Assistant	Ocean Leadership	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	60%	60%
TOTAL Ocean Leadership FTEs			**4.13**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.13**	**0.81**	**3.31**	**3.08**	**7.20**
Dave Goldberg	Director	LDEO	50%	0%	0%	0%	0%	0%	0%	0%	50%	6%	44%	0%	50%
Maria Bouzeas	Administrative Assistant	LDEO	100%	0%	0%	0%	0%	0%	0%	0%	100%	12%	88%	0%	100%
Alberto Malinverno	Principal Scientist	LDEO	0%	50%	0%	0%	0%	0%	0%	0%	50%	12.5%	37.5%	0%	50%
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%

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 FY12. Student workers and TAMRF administrative support staff are not included in the table. (Continued on next seven pages.)

FY13 USIO FTE Allocation Detail (continued)

Position			% Work Breakdown Elements (SOC- and POC-supported FTEs)									% Effort Totals			
Name	Position Title	USIO Office	M&A	TESS	ED	CC	DM	Pubs	Ed	Otrch	Total	SOC	POC	Other	Total
Carl Brenner	Technical Services Specialist	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%
Stefan Mrozewski	Mechanical Engineer	LDEO	0%	100%	0%	0%	0%	0%	0%	0%	100%	25%	75%	0%	100%
Gerardo Iturrino	Manager, Engineering and Technical Services	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%	29%	0%	0%	0%	0%	0%	0%	29%	7.25%	21.75%	0%	29%
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%	17%	0%	0%	0%	0%	0%	0%	17%	0%	17%	0%	17%
Johanna Lofi	Logging Staff Scientist	LDEO	0%	42%	0%	0%	0%	0%	0%	0%	42%	0%	42%	0%	42%
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%	75%	0%	0%	0%	0%	0%	0%	75%	19%	56%	0%	75%
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%

(Continued on next six pages.)

FY13 USIO FTE Allocation Detail (continued)

Position			% Work Breakdown Elements (SOC- and POC-supported FTEs)									% Effort Totals			
Name	Position Title	USIO Office	M&A	TESS	ED	CC	DM	Pubs	Ed	Otrch	Total	SOC	POC	Other	Total
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%
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			**4.00**	**8.72**	**0.00**	**0.00**	**4.71**	**0.00**	**0.00**	**0.00**	**17.43**	**3.44**	**13.98**	**0.00**	**17.43**
Brad Clement	Director	TAMU	50%	0%	0%	0%	0%	0%	0%	0%	50%	2.5%	47.5%	0%	50%
Diane Bertinetti	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%
Adam Davidson	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%
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 II	TAMU	0%	0%	0%	100%	0%	0%	0%	0%	100%	75%	25%	0%	100%
Gemma Barrett	Curatorial Specialist II	TAMU	0%	0%	0%	100%	0%	0%	0%	0%	100%	75%	25%	0%	100%
Mitch Malone	Assistant Director/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%
Kevin Grigar	Senior Staff Engineer	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%
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%

(Continued on next five pages.)

FY13 USIO FTE Allocation Detail (continued)

Position			% Work Breakdown Elements (SOC- and POC-supported FTEs)									% Effort Totals			
Name	Position Title	USIO Office	M&A	TESS	ED	CC	DM	Pubs	Ed	Otrch	Total	SOC	POC	Other	Total
Karen Graber	Staff Researcher	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%
Steve Midgley	Operations Superintendent	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
TBN	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%
Tyrone Brashear	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%
Katerina Petronotis	Staff Scientist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Nicole Stroncik	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%
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%
John Miller	Business Coordinator II	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%
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%
Sandra Herrmann	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%
TBN	Research Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%

(Continued on next four pages.)

FY13 USIO FTE Allocation Detail (continued)

Position			% Work Breakdown Elements (SOC- and POC-supported FTEs)									% Effort Totals			
Name	Position Title	USIO Office	M&A	TESS	ED	CC	DM	Pubs	Ed	Otrch	Total	SOC	POC	Other	Total
TBN	Research Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
TBN	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%
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%
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%
TBN	Marine Laboratory Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Etienne Claassen	Senior Marine Instrumentation Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%

(Continued on next three pages.)

FY13 USIO FTE Allocation Detail (continued)

Position			% Work Breakdown Elements (SOC- and POC-supported FTEs)									% Effort Totals			
Name	Position Title	USIO Office	M&A	TESS	ED	CC	DM	Pubs	Ed	Otrch	Total	SOC	POC	Other	Total
Randy Gjesvold	Senior Marine Instrumentation Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Jurie Kotze	Senior Marine Instrumentation Specialist	TAMU	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%
Garrick Van Rensburg	Senior 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%	15%	85%	0%	100%
Denise Ponzio	Information Services Assistant	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	15%	85%	0%	100%
Phil Gates	Supervisor, Information Technology Support	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	15%	85%	0%	100%
Cesar Flores	Senior Systems Administrator	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	15%	85%	0%	100%
Jennifer Hutchinson	Systems Administrator	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	15%	85%	0%	100%
Matt Nobles	Systems Administrator	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	15%	85%	0%	100%
Mike Petersen	Senior Systems Support Specialist	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	15%	85%	0%	100%
Tiffany Bloxom	Systems Support Specialist	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	15%	85%	0%	100%
James Cordray	Systems Support Specialist	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	15%	85%	0%	100%
Chuck Haddick	Systems Support Specialist	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	15%	85%	0%	100%
Mike Hodge	Associate Marine Computer Specialist	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	15%	85%	0%	100%

(Continued on next two pages.)

FY13 USIO FTE Allocation Detail (continued)

Position			% Work Breakdown Elements (SOC- and POC-supported FTEs)									% Effort Totals			
Name	Position Title	USIO Office	M&A	TESS	ED	CC	DM	Pubs	Ed	Otrch	Total	SOC	POC	Other	Total
Grant Banta	Marine Computer Specialist	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	15%	85%	0%	100%
Michael Cannon	Marine Computer Specialist	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	15%	85%	0%	100%
Andrew Trefethen	Marine Computer Specialist	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	15%	85%	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%
Algie Morgan	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%
TBN	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%	15%	85%	0%	100%
Saranavan Nagarajan	Senior Software Applications Developer	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	15%	85%	0%	100%
Don Sims	Data Analyst	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	15%	85%	0%	100%
TBN	Systems Analyst II	TAMU	0%	0%	0%	0%	100%	0%	0%	0%	100%	15%	85%	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%
Ginny Lowe	Editor IV	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	100%	0%	0%	100%
Jenni Hesse	Editor III	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%

(Continued on next page.)

FY13 USIO FTE Allocation Detail (continued)

Position			% Work Breakdown Elements (SOC- and POC-supported FTEs)									% Effort Totals			
Name	Position Title	USIO Office	M&A	TESS	ED	CC	DM	Pubs	Ed	Otrch	Total	SOC	POC	Other	Total
Amy McWilliams	Editor III	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	100%	0%	0%	100%
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%
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%
Ann Yeager	Distribution Specialist I	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%
Paul Pleasant	Graphics Specialist II	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	80%	20%	0%	100%
Alyssa Stephens	Graphics Specialist II	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	80%	20%	0%	100%
Jean Wulfson	Graphics Specialist II	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	80%	20%	0%	100%
Gigi Delgado	Senior Publications Coordinator	TAMU	0%	0%	0%	0%	0%	100%	0%	0%	100%	100%	0%	0%	100%
TOTAL TAMU FTEs			**4.50**	**63.00**	**0.00**	**3.90**	**18.00**	**19.00**	**0.00**	**0.00**	**108.40**	**23.43**	**84.97**	**0.10**	**108.50**
GRAND TOTAL USIO FTEs			**12.63**	**71.72**	**0.00**	**3.90**	**22.71**	**19.00**	**0.00**	**0.00**	**129.95**	**27.68**	**102.27**	**3.18**	**133.13**

4. EXPEDITION OPERATIONS

4.1. INTRODUCTION

This Annual Program Plan is based on the operations schedule published 13 January 2012, including two non-IODP periods.

1 August–23 October 2012	Non-IODP
23 October–11 December 2012	Costa Rica Seismogenesis Project 2
11 December 2012–12 February 2013	Hess Deep Plutonic Crust
12 February–25 May 2013	Non-IODP
25 May–29 May 2013	SCIMPI Test Deployment
29 May–29 July 2013	Southern Alaska Margin Tectonics, Climate, and Sedimentation
29 July–20 August 2013	Transit
20 August–28 September 2013	Asian Monsoon

4.2. OPERATIONS

4.2.1. Expedition 344: Costa Rica Seismogenesis Project 2

Proposed Operations

Expedition 344: Costa Rica Seismogenesis Project (CRISP) 2 is designed to elucidate the processes that control nucleation and seismic rupture of large earthquakes at erosional subduction zones. CRISP is located at the only known seismogenic zone at an erosional convergent margin within reach of scientific drilling, where a low sediment supply, fast convergence rate, abundant seismicity, subduction erosion, and a change in subducting plate relief along strike offer excellent opportunities to better understand earthquake nucleation and rupture propagation. This project complements other deep fault drilling (San Andreas Fault Observatory at Depth and Nankai Trough Seismogenic Zone Experiment) and investigates the first-order seismogenic processes common to most faults and those unique to erosional margins. Expedition 344 is based in part on CRISP Program A (IODP Proposal 537A-Full5), which is the first step toward the deep riser drilling through the seismogenic zone. This expedition follows the operations conducted during Expedition 334 (CRISP 1) and will focus on constraining the boundary conditions of lithology, fluid flow, and thermal structure that trigger unstable slip in the seismogenic zone along a drilling transect at two slope sites. These slope sites may also serve as pilot holes for potential future proposed riser drilling to reach the aseismic/seismic plate boundary.

Logistics

Operations for Expedition 344 require an estimated 49 days (2 in port, 3 in transit to and from the first/last sites, and 44 in operations).

4.2.2. Expedition 345: Hess Deep Plutonic Crust

Proposed Operations

Expedition 345: Hess Deep Plutonic Crust will be the second offset drilling program at the Hess Deep Rift to study crustal accretion processes at the fast-spreading East Pacific Rise. The expedition will take advantage of well-surveyed crustal exposures to recover the first cores of young, primitive plutonic rocks that comprise the lowermost ocean crust. The principal objective for drilling at Hess Deep is to test competing hypotheses of magmatic accretion and hydrothermal processes at fast-

spreading mid-ocean ridges. These hypotheses make predictions that can only be tested with drill core, including the presence or absence of modally layered gabbro, presence or absence of systematic variations in mineral and bulk rock compositions, and extent and nature of hydrothermal alteration and deformation. The highest priority for drilling at the Hess Deep Rift will be to sample one or more 100 to ≥250 m long sections of primitive gabbroic rocks. Three primary drill sites have been identified; however, if coring proceeds well in the first or second of these sites, it will be continued as long as possible in order to obtain the longest possible continuous sample. The alternate site is located near Ocean Drilling Program (ODP) Site 894, where shallow-level gabbros are exposed. This plan differs slightly from Proposal 551, as there is no alternate site in upper mantle peridotite. Drilling, coring, and logging operations may be challenging during the Hess Deep expedition because of water depths >4,800 m, a thin sediment cover, and, potentially, unstable basement formations.

Logistics

Operations for the Expedition 345 are budgeted based on an estimated 63 days (7 in port, 11 in transit, and 45 in operations).

4.2.3. SCIMPI Test Deployment

Proposed Operations

The Simple Cabled Instrument for Measuring Parameters In Situ (SCIMPI) is a seafloor observatory with a modular system to make long-term subsurface time-series measurements of temperature, pressure, and resistivity at multiple depths in IODP boreholes. The SCIMPI will be deployed for testing on the Cascadia margin, which is an excellent test environment because of coring and logging conducted during Expedition 311 and the accessibility of the area for post-deployment access.

Logistics

Operations for the SCIMPI test are budgeted based on 4 days (2 days in transit and 2 days in operations)

4.2.4. Expedition 341: Southern Alaska Margin Tectonics, Climate, and Sedimentation

Proposed Operations

Expedition 341: Southern Alaska Margin Tectonics, Climate, and Sedimentation will drill a cross-margin transect to investigate the northeast Pacific continental margin sedimentary record formed during orogenesis amid a time of significant global climatic deterioration in the Pliocene–Pleistocene, which led to the development of the most aggressive erosion agent on the planet: a temperate glacial system. Expedition 341 will use sedimentary provenance and paleoclimatic, glacimarine, and structural sedimentary indicators tied to a multicomponent chronology to generate detailed records of changes in the locus and magnitude of glacial erosion, degree of tectonic shortening, and sediment and freshwater delivery to the coastal ocean; their impact on oceanographic conditions in the Gulf of Alaska; and the resulting continental margin stratigraphic record on the interaction of these processes.

Logistics

Operations for the Expedition 341 are budgeted based on an estimated 61 days (3 days in port, 8 days in transit, and 50 in operations).

4.2.5. Expedition 346: Asian Monsoon

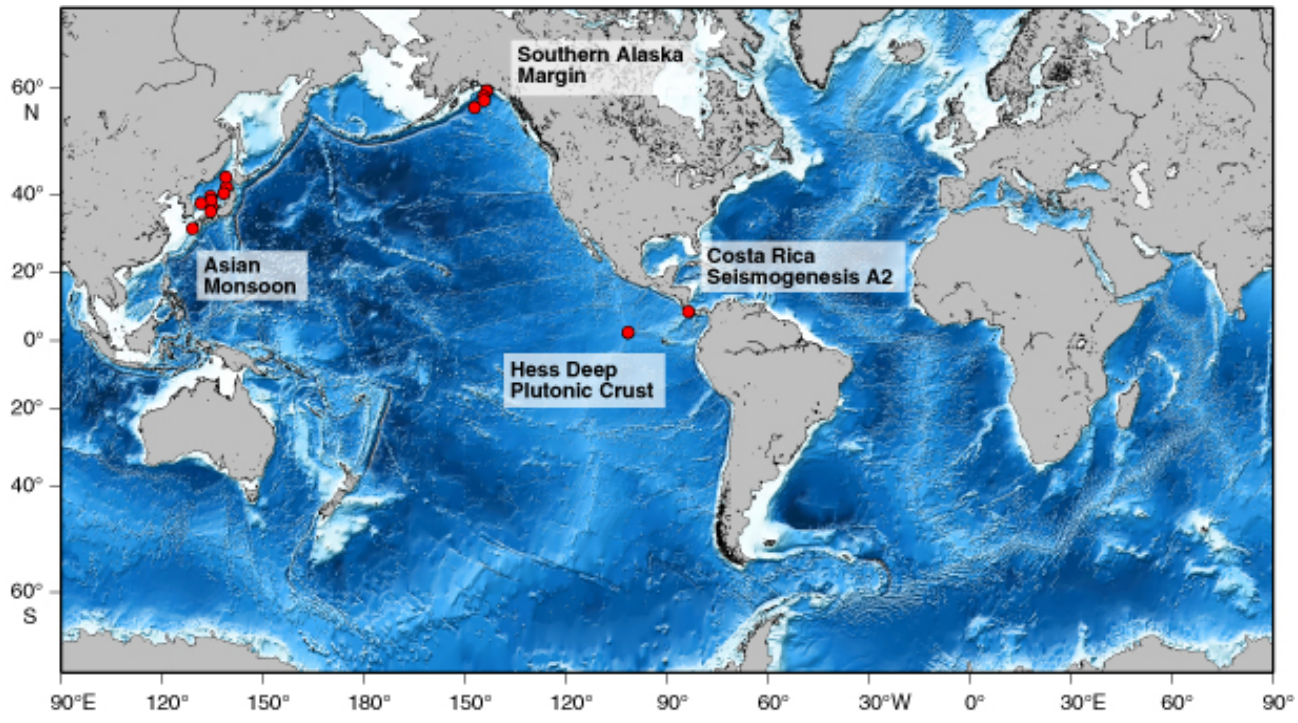
Proposed Operations

Expedition 346: Asian Monsoon will drill two latitudinal transects in the Japan Sea to monitor behaviors of the westerly jet and winter monsoon and will drill at the northern part of the East China Sea to monitor the Yangtze River discharge history that should reflect variations in summer monsoon intensity. The southern transect will be used to reconstruct the behavior of the subpolar front and examine its relationship with the westerly jet and sea level changes. The northern transect will be used to identify ice-rafted debris events and reconstruct temporal variation in its southern limit as winter monsoon proxies. The proposed drilling is designed to (1) specify the onset timing of orbital and millennial-scale variability of East Asian monsoon and westerly jet and reconstruct their evolution process and spatial variation patterns and (2) reconstruct orbital and millennial-scale paleoceanographic changes in the Japan Sea during the last 5 m.y. to clarify the linkage between the paleoceanographic changes in the Japan Sea and the variability of East Asian monsoon and/or sea level changes. Comparison of the results with the uplift history of the Himalayan and Tibetan Plateaus will enable us to test the idea that topographic evolution of the plateaus was responsible for creation of bimodality in westerly jet circulation that caused amplification of millennial-scale variability of Asian monsoon.

Logistics

Operations for Expedition 346 are budgeted based on an estimated 39 days (1 in port, 2 in transit, and 36 in operations).

4.3. IODP-USIO FY13 Site Map



4.4. EXPEDITION OPERATIONS BUDGET

Expense Category	Non-IODP	Expedition 344T: Transit	Expedition 344: CRISP-2	Expedition 345: Hess Deep	Expedition 341T: Transit	Non-IODP	Expedition 341: South Alaska	Expedition 346T: Transit	Expedition 346: Asian Monsoon	Non-IODP	Total
	18 days[1]	4 days	49 days	61 days	21 days	87 days[2]	61 days	22 days	39 days	3 days[3]	365 days
Ship Operations											
Day Rate	1,480,831	338,284	4,139,372	5,172,316	1,795,709	7,283,480	5,243,209	1,884,131	3,354,374	251,153	30,942,860
Communications[4]	11,643	2,587	31,694	39,455	13,583	56,272	39,455	14,230	25,226	1,940	236,085
Fuel and Lubricants[5]	0	0	0	1,409,033	674,814	792,094	1,590,757	628,143	913,012	523,011	6,530,864
Per Diem	20,749	4,836	94,130	117,182	23,289	95,980	117,182	27,426	74,920	5,763	581,457
Port Calls[6]	110,000	25,000	35,000	194,000	175,000	492,000	164,000	244,000	20,000	309,000	1,768,000
Insurance[7]	70,340	21,998	269,478	335,473	115,491	339,979	335,473	120,990	214,482	11,723	1,835,427
Travel—ODL[8]	0	0	0	191,386	85,513	283,863	177,990	64,193	113,797	98,328	1,015,070
Expenses—ODL[9]	2,219	493	6,041	7,521	2,589	10,726	7,521	2,712	4,808	370	45,000
Contractual Services											
Schlumberger	175,572	39,016	477,946	594,994	204,834	848,599	594,994	214,588	380406	29,263	3,560,212
Total[10]	**1,871,354**	**432,214**	**5,053,661**	**8,061,360**	**3,090,822**	**10,202,993**	**8,270,581**	**3,200,413**	**5,101,025**	**1,230,552**	**46,514,975**

[1] Only the FY13 portion of the non-IODP period beginning 1 August 2012 is included in this budget.
[2] This non-IODP period is scheduled to be in Victoria, British Columbia (Canada) from 10 February through 28 May 2013.
[3] The last currently scheduled expedition (Asian Monsoon) ends 27 September 2013.
[4] Communications expenses include Marisat costs that will be incurred when very small aperture terminal (VSAT) service is unavailable because of the vessel's location.
[5] Fuel required for the FY12 portion of the first non-IODP period, Expedition 344T (Transit), and Expedition 344 (CRISP-2) will be purchased with FY12 funds.
[6] Port call costs for the FY12 portion of the first non-IODP period will be charged to FY12 funds.
[7] Insurance estimates are based on actual FY12 premiums plus a 20% inflation factor. In addition, Sections 1 and 2 of the Hull & Machinery policy premium reflect a 50% discount allowed during the non-IODP periods.
[8] Cost of crew change for crew on board for more than a single expedition (e.g., 341T [Transit] and part of the non-IODP period) are apportioned based on the percentage of total days on board for each of the two activities.
[9] Other expenses—ODL includes expenses for possible medical evacuations and supplies and maintenance costs incurred by ODL that are not included in the day rate. The total budgeted costs of $45,000 are distributed based on the duration of expedition activity as a percentage of the total budgeted period. For example, Hess Deep costs are 61/365 of $45,000.
[10] Elimination of Expeditions 346: Asian Monsoon and 345: Hess Deep would result in net savings of $2.3M and $2.0M, respectively.

Expedition costs included in this budget cover SOC and POC activities in support of the USIO FY13 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 FY13 expeditions and initial FY14 expeditions, and transit and/or work on the ship during non-IODP periods.

Supplies—Office and operational supplies.

Safety equipment and operational, laboratory, logistic, and shipping supplies for the FY13 expeditions and long-lead supplies for FY14 expeditions.

Shipping—Postage, express mail, and freight.

Costs for shipments to and from FY13 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 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 from LGL Limited associated with environmental evaluation 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 all or part of three non-IODP periods: the final 18 days of a 64-day non-IODP period (1–18 October 2012), an 87-day non-IODP period (3 March–29 May 2013), and the first three days of a 61-day non-IODP period (28–30 September 2013). Curacao, Netherlands Antilles has been tentatively designated as the location for the first non-IODP period; Victoria, British Columbia (Canada), for the second non-IODP period; and Busan, Korea, for the non-IODP period beginning at the end of FY13 on 28 September 2013. The operating/transiting and standby day rates, respectively, are $84,571 and $82,268 (1 October–31 December 2012), $84,942 and $83,627 (1–31 January 2013), and $86,070 and $83,718 (1 February–30 September 2013). The budget allows for one ECI base adjustment of 2.519429%, effective 1 January 2013, and one CPI-U based adjustment of 2.497781%, effective 1 February 2013.

Fuel and Lubricants—Fuel for the riserless vessel.

FY13 ship operations fuel purchases are estimated at a total of 5,786 metric tons: 1,266 metric tons in Puntarenas, Costa Rica; 1,318 metric tons in Balboa, Panama; 1,363 metric tons in Victoria, British Columbia (Canada), in May 2013 and another 1,320.5 metric tons at that same location in July 2013; and 518.5 metric tons in Busan, Korea, on the commencement of a 61-day maintenance period scheduled to begin 28 September 2013. Price per metric ton is based on prices quoted by Bunkerworld on 7 June 2012 for the locations specified, plus a 10% inflation factor. **Note: If inflation exceeds 10%, we will not be able to execute the full expedition schedule.**

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 $31.88/day/person for all nontransit and nonmaintenance periods. The number of personnel on board for transit and non-IODP periods was estimated based on a staffing schedule distributed on 1 March 2012 and varies from 8 to 24 at a cost of $97.38 day/person to $50.03 day/person (the lower the number on board, the higher the daily rate per person). Also included is $3,000 for meals served during port calls (including non-IODP periods) to all nonseagoing 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 Curaçao (the final 18 days of tie-up/non-IODP period at beginning of FY13); Balboa, Panama (2 days); Puntarenas, Costa Rica (5 days); Balboa, Panama (5 days); Victoria, British Columbia (Canada) (87 days for the non-IODP period and 3 days for redeployment preparation); Victoria, British Columbia (Canada)/TBD (4 days); Hakodate, Japan (1 day) and Busan, Korea (5 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, and the premiums for Sections 1 and 2 of the Hull & Machinery coverage are discounted 50% during the non-IODP periods, which total 108 days in FY13.

Travel–ODL—Subcontractor transportation.

Airfare for ship subcontractor's crews to/from six scheduled crew changes— Puntarenas, Costa Rica (Hess Deep); Balboa, Panama (transit/non-IODP period); three in Victoria, British Columbia (Canada) (non-IODP period, South Alaska, and transit/Asian Monsoon). 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 (TAMU).

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 miscellaneous charges payable to the ship's subcontractor, drill pipe maintenance, wireline severing charges, transfer fees, weather reports, and annual physical examinations for seagoing personnel.

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

Costs for possible medical evacuations ($25,000) and miscellaneous reimbursable supplies and maintenance costs ($20,000) 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 FY13 have already been paid, so these subcontracts are not subject to indirect cost during FY13. Modified total direct costs (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 FY13

- 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: Routinely archive electronic copies of documents and reports produced by the USIO on behalf of IODP.

5.3. BUDGET

Management and Administration			
Element/Expense Category	**SOC**	**POC**	**Total**
Salaries and Fringes	296,986	2,644,410	2,941,396
Travel	19,204	212,032	231,236
Supplies	2,525	26,975	29,500
Shipping	1,171	7,829	9,000
Communication	6,990	47,890	54,880
Contractual Services	0	0	0
Equipment	50	950	1,000
Other Direct Costs	4,985	153,750	158,735
Relocation	*0*	*10,000*	10,000
Training	*0*	*65,670*	65,670
Business Conferences	*150*	*2,850*	3,000
Insurance	*300*	*5,700*	6,000
Services	*2,800*	*27,210*	30,010
TAMU Computing Services	*1,100*	*20,900*	22,000
Equipment Rental	*60*	*1,140*	1,200
Furniture	*325*	*6,175*	6,500
Recruiting	*0*	*5,500*	5,500
Maintenance and Repair	*250*	*4,750*	5,000
Library	*0*	*3,855*	3,855
Total Direct Costs	331,911	3,093,836	3,425,747
Modified Total Direct Costs (if applicable)	68,515	483,616	552,131
Indirect Costs or Administrative Fees	209,780	860,528	1,070,308
Total Management and Administration	**$541,691**	**$3,954,364**	**$4,496,055**

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 14 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—None budgeted.

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

Equipment—None budgeted.

Other Direct Costs—Costs not covered in other categories.

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.

SOC—None budgeted.

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—None budgeted.

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—None budgeted.

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—The approved provisional rate of 33% 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 = $66,000). The G&A costs for the two subcontracts (LDEO and TAMRF) are divided evenly between SOC G&A and POC G&A ($33,000 each = $16,500 SOC + $16,500 NSF).

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 FY13 have already been paid, so these subcontracts are not subject to indirect cost during FY13. MTDCs are the total direct costs minus these exceptions.

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 CDEX and technical advice and logistical assistance ESO and CDEX for Schlumberger and other logging services for their expeditions in FY13.

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 FY13 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 FY13

- 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, task forces, and workshops 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.
- Legacy Documentation: Routinely archive electronic copies of documents and reports produced by the USIO on behalf of IODP, including daily, weekly, site summary, operations, and engineering reports.

6.3. BUDGET

Technical, Engineering, and Science Support			
Element/Expense Category	**SOC**	**POC**	**Total**
Salaries and Fringes	0	6,995,982	6,995,982
Travel	0	1,150,776	1,150,776
Supplies	0	2,207,299	2,207,299
Shipping	0	948,567	948,567
Communication	0	270,145	270,145
Contractual Services	0	3,873,523	3,873,523
Equipment	0	1,102,500	1,102,500
Other Direct Costs	0	43,449,450	43,449,450
Day Rate	*0*	*30,952,267*	*30,952,267*
Fuel and Lubricants	*0*	*6,530,864*	*6,530,864*
Per Diem	*0*	*581,457*	*581,457*
Port Calls	*0*	*1,768,000*	*1,768,000*
Insurance	*0*	*1,835,427*	*1,835,427*
Travel—ODL	*0*	*1,015,070*	*1,015,070*
Other	*0*	*766,365*	*766,365*
Relocation	*0*	*75,000*	*75,000*
Training	*0*	*201,650*	*201,650*
Business conferences	*0*	*18,500*	*18,500*
Insurance	*0*	*9,000*	*9,000*
Services	*0*	*168,575*	*168,575*
Equipment rental	*0*	*840*	*840*
Other Expense—ODL	*0*	*45,000*	*45,000*
Furniture	*0*	*2,000*	*2,000*
Recruiting	*0*	*45,000*	*45,000*
Maintenance and Repair	*0*	*193,000*	*193,000*
Library	*0*	*7,800*	*7,800*
Total Direct Costs	0	59,998,242	59,998,242
Modified Total Direct Costs (if applicable)	0	1,033,498	1,033,498
Indirect Costs or Administrative Fees	0	547,754	547,754
Total Technical, Engineering, and Science Support	**$0**	**$60,545,996**	**$60,545,996**

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—None budgeted.

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—None budgeted.

POC—Travel to IODP meetings and workshops, pre-expedition and postexpedition meetings, and FY14 planning meetings; meetings with drilling equipment supply vendors; conferences; subcontract site visits; and travel costs for USIO staff who will work at port calls, sail on FY13 and initial FY14 expeditions and transit, and/or work on the ship during transits or tie-up periods. Also includes LDEO travel to professional training courses and meetings.

Supplies—Office and operational supplies.

SOC—None budgeted.

POC—General office supplies; electronic media and other computer supplies with an acquisition cost of less than $1,000 (for TAMU); printer and copier supplies; operational, laboratory, standard reference material, logistic, and shipping supplies for shipboard and shore-based analytical and engineering laboratory and test facilities, FY13 expeditions, and long-lead supplies for FY14 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—None budgeted.

POC—Postage for regular correspondence and small packages and shipping to and from FY13 expeditions.

Communication—Satellite, telephone, and fax charges.

SOC—None budgeted.

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, 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 from LGL Limited associated with environmental evaluation 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., advanced hydraulic piston corer, extended core barrel, and rotary core barrel 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. Acquisition of new analytical systems (e.g., carbon isotope analyzer), and capital replacement or upgrades of failed or obsolete laboratory equipment, including but not limited to microscopes, image capture systems for microscopy, color spectrophotometer, gas chromatograph, Cahn electrobalances, Carver presses, ion chromatograph upgrade, wavelength dispersive X-ray fluorescence (XRF) improvements, global positioning system antennas and control systems, ashing furnace, parallel saw, lap wheels, vent hoods, gas detection sensors, sonar dome parts replacement, and analytical bead maker.

***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 all or part of three non-IODP periods: the final 18 days of a 64-day non-IODP period (1–18 October 2012), an 87-day non-IODP period (3 March–29 May 2013), and the first three days of a 61-day non-IODP period (28–30 September 2013). Curacao, Netherlands Antilles has been tentatively designated as the location for the first non-IODP period; Victoria, British Columbia (Canada), for the second non-IODP period; and Busan, Korea, for the non-IODP period beginning at the end of FY13 on 28 September 2013. The operating/transiting and standby day rates, respectively, are $84,571 and $82,268 (1 October–31 December 2012), $84,942 and $83,627 (1–31 January 2013), and $86,070 and $83,718 (1 February–30 September 2013). The budget allows for one ECI base adjustment of 2.519429%, effective 1 January 2013, and one CPI-U based adjustment of 2.497781%, effective 1 February 2013.

Fuel and Lubricants—Fuel for the riserless vessel.

SOC—None budgeted.

POC—FY13 ship operations fuel purchases are estimated at a total of 5,786 metric tons: 1,266 metric tons in Puntarenas, Costa Rica; 1,318 metric tons in Balboa, Panama; 1,363 metric tons in Victoria, British Columbia (Canada), in May 2013 and another 1,320.5 metric tons at that same location in July 2013; and 518.5 metric tons in Busan, Korea, on the commencement of a 61-day maintenance period scheduled to begin 28 September 2013. Price per metric ton is based on prices quoted by Bunkerworld on 7 June 2012 for the locations specified, plus a 10% inflation factor. **Note: If inflation exceeds 10%, we will not be able to execute the full expedition schedule.**

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 $31.88/day/person for all nontransit and nonmaintenance periods. The number of personnel on board for transit and non-IODP periods was estimated based on a staffing schedule distributed on 1 March 2012 and varies

from 8 to 24 at a cost of $97.38 day/person to $50.03 day/person (the lower the number on board, the higher the daily rate per person). Also included is $3,000 for meals served during port calls (including non-IODP periods) to all nonseagoing 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 Curaçao (the final 18 days of tie-up/non-IODP period at beginning of FY13); Balboa, Panama (2 days); Puntarenas, Costa Rica (5 days); Balboa, Panama (5 days); Victoria, British Columbia (Canada) (87 days for the non-IODP period and 3 days for redeployment preparation); Victoria, British Columbia (Canada)/TBD (4 days); Hakodate, Japan (1 day) and Busan, Korea (5 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, and the premiums for Sections 1 and 2 of the Hull & Machinery coverage are discounted 50% during the non-IODP periods, which total 108 days in FY13.

Travel–ODL—Subcontractor transportation.

SOC—None budgeted.

POC—Airfare for ship subcontractor's crews to/from six scheduled crew changes—Puntarenas, Costa Rica (Hess Deep); Balboa, Panama (transit/non-IODP period); three in Victoria, British Columbia (Canada) (non-IODP period, South Alaska, and transit/Asian Monsoon). 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 safety and other 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—None budgeted.

POC—Annual physical examinations for seagoing personnel, copier services, external copying and printing services, vehicle and warehouse equipment repair, drill pipe maintenance, testing and calibration of laboratory instruments, equipment testing and calibration, machine shop services, costs to cover miscellaneous charges payable to the ship's subcontractor, wireline severing charges, transfer fees, and weather reports.

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

SOC—None budgeted.

POC—Test facility outhouse rental.

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

SOC—None budgeted.

POC—Costs for possible medical evacuations ($25,000) and miscellaneous reimbursable costs for supplies and maintenance costs ($20,000) payable to the ship 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 and other loading dock equipment; and drilling, coring, logging operations, 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—None budgeted.

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 FY13 have already been paid, so these subcontracts are not subject to indirect cost during FY12. 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 FY13

- USIO Technical Panel: Operate the USIO Technical Panel (UTP), through which external members from industry and academia participate in bi-annual meetings to review engineering and operations issues within the USIO with the purpose of providing third-party advice to aid the USIO. The UTP is administered and operated by Ocean Leadership with assistance from the USIO partners.
- Legacy Documentation: Routinely archive electronic copies of documents and reports produced by the USIO on behalf of IODP.

7.3. BUDGET

Engineering Development			
Element/Expense Category	**SOC**	**POC**	**Total**
Salaries and Fringes	0	0	0
Travel	0	44,000	44,000
Supplies	0	3,000	3,000
Shipping	0	0	0
Communication	0	3,000	3,000
Contractual Services	0	25,000	25,000
Equipment	0	0	0
Other Direct Costs	0	0	0
Total Direct Costs	0	75,000	75,000
Modified Total Direct Costs (if applicable)	0	0	0
Indirect Costs or Administrative Fees	0	24,750	24,750
Total Engineering Development	**$0**	**$99,750**	**$99,750**

Funds for this WBE are budgeted as follows:

Salaries and Fringes—None budgeted.

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

SOC—None budgeted.

POC—Costs to support invited members to attend UTP meetings at USIO locations.

Supplies—Office and operational supplies.

SOC—None budgeted.

POC—General office supplies, printer supplies, and general computer supplies to support UTP functions.

Shipping—None budgeted.

Communication—Satellite, telephone, and fax charges.

SOC— None budgeted.

POC—Telephone, web conference, and video conferencing as needed to support the UTP.

Contractual Services—Consultant and contract services.

SOC—None budgeted.

POC—Engineering evaluation services beyond the scope of UTP volunteers as needed to complete panel objectives.

Equipment—None budgeted.

Other Direct Costs—None budgeted.

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

SOC—None budgeted.

POC—The approved provisional rate of 33% 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 = $66,000). The G&A costs for the two subcontracts (LDEO and TAMRF) are divided evenly between SOC G&A and POC G&A ($33,000 each = $16,500 SOC + $16,500 NSF).

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 FY13

- 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 for each expedition.
- Sample Requests: Fulfill 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 Curatorial Advisory Board, as appropriate.
- Legacy Documentation: Routinely archive electronic copies of documents and reports produced by the USIO on behalf of IODP.

8.3. BUDGET

Core Curation			
Element/Expense Category	**SOC**	**POC**	**Total**
Salaries and Fringes	280,925	94,249	375,174
Travel	46,125	15,375	61,500
Supplies	26,250	8,750	35,000
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	14,063	8,438	22,501
Training	*0*	*3,750*	*3,750*
Business Conferences	*2,250*	*750*	*3,000*
Services	*7,313*	*2,438*	*9,751*
Maintenance and Repair	*4,500*	*1,500*	*6,000*
Total Core Curation Direct Costs	388,738	133,937	522,675
Modified Total Direct Costs (if applicable)	0	0	0
Indirect Costs or Administrative Fees	0	0	0
Total Core Curation	**$388,738**	**$133,937**	**$522,675**

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, 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); professional conferences; and travel costs for USIO staff who will sail on FY13 expeditions.

Supplies—Office and operational supplies.

SOC/POC—General office supplies and printer supplies; general safety, cleaning, and laboratory supplies; specialized supplies for sampling and curatorial tasks; crates and shipping boxes.

Shipping—Postage, express mail, and freight.

SOC/POC—Postage for regular correspondence, regular-sized sample shipments to scientists, and costs for special shipments of deep-frozen microbiological samples, U-channels, or whole core sections for X-ray fluorescence scanning.

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—None budgeted.

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 sample parties and groups of scientists, educators, or others visiting the GCR.

Services—Expert assistance.

SOC/POC—Annual physical examinations for seagoing personnel, Graduate Assistant Research tuition and fees, and facilities repair.

*Maintenance and Repair***—**Maintenance agreements and equipment repairs.

SOC/POC—Repairs and maintenance for deep freezers; laboratory, repository, and office equipment; and shrink-wrap and bagging machinery.

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, support of information technology (IT) services, and provision of database services for postmoratorium ESO and CDEX log data.

9.2. DELIVERABLES IN FY13

- 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 Data Query Services: Provide USIO customers with access to expedition databases and data using web-based services.
- 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: Routinely archive electronic copies of documents and reports produced by the USIO on behalf of IODP, including documentation of all information technology architecture and corresponding services configurations.

9.3. BUDGET

Data Management			
Element/Expense Category	**SOC**	**POC**	**Total**
Salaries and Fringes	509,236	1,462,691	1,971,927
Travel	40,955	107,979	148,934
Supplies	15,460	38,940	54,400
Shipping	1,135	2,065	3,200
Communication	6,815	25,965	32,780
Contractual Services	0	0	0
Equipment	55,477	145,430	200,907
Other Direct Costs	89,379	374,327	463,706
Training	*0*	*35,250*	*35,250*
Business Conferences	*155*	*545*	*700*
Software	*9,000*	*51,000*	*60,000*
Services	*33,995*	*24,725*	*58,720*
Maintenance and Repair	*46,229*	*261,962*	*308,191*
Library	*0*	*845*	*845*
Total Direct Costs	718,457	2,157,397	2,875,854
Modified Total Direct Costs (if applicable)	99,250	502,422	601,672
Indirect Costs or Administrative Fees	52,602	266,283	318,885
Total Data Management	**$771,059**	**$2,423,680**	**$3,194,739**

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 FY13 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 FY13 expeditions and transit. Also includes LDEO travel to professional training courses and meetings.

Supplies—Office and operational supplies.

SOC—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); 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.

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

SOC—None budgeted.

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.

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—None budgeted.

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 FY13 have already been paid, so these subcontracts are not subject to indirect cost during FY13. 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 FY13

- IODP Publications: Advise IODP-MI on scientific publication efforts. The following publications will be published or in production:
  - ~10 scientific reports (*Scientific Prospectuses* and *Preliminary Reports*);
  - Expedition reports from 10 IODP expeditions (7 USIO expeditions and 3 CDEX expeditions); and
  - Postexpedition data reports and synthesis papers from 23 IODP expeditions (15 USIO expeditions, 6 CDEX expeditions, and 2 ESO expeditions).
- IODP Reports: The following reports will be edited and produced:
  - Four IODP-USIO quarterly reports;
  - IODP-USIO Annual Program Plans to IODP-MI (SOC/POC) and NSF (POC/OPIC with SOC Appendix), including original versions and all revisions required by funding agencies; and
  - One IODP-USIO FY13 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 (~50 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 4 USIO, 3 CDEX expeditions, and 1 ESO onshore Science Party meeting (shipboard support on CDEX expeditions will be scheduled, as required, in cooperation with CDEX and Marine Works Japan) and

- Provide editorial, graphics, and production support during 3 USIO and 3 CDEX editorial postexpedition meetings.

- Legacy and Technical Documentation: Routinely archive electronic copies of all documents, reports, technical documentation, and scientific publications produced by the USIO on behalf of IODP.

10.3. BUDGET

Publications			
Element/Expense Category	**SOC**	**POC**	**Total**
Salaries and Fringes	1,198,390	64,840	1,263,230
Travel	40,400	20,000	60,400
Supplies	30,150	0	30,150
Shipping	3,400	0	3,400
Communication	8,000	0	8,000
Contractual Services	0	0	0
Equipment	0	0	0
Other Direct Costs	9,525	0	9,525
Business Conferences	*3,900*	*0*	*3,900*
Services	*4,500*	*0*	*4,500*
Equipment Rental	*300*	*0*	*300*
Maintenance and Repair	*825*	*0*	*825*
Total Direct Costs	1,289,865	84,840	1,374,705
Modified Total Direct Costs (if applicable)	0	0	0
Indirect Costs or Administrative Fees	0	0	0
Total Publications	**$1,289,865**	**$84,840**	**$1,374,705**

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) and for USIO staff providing Publications Assistant support for CDEX expeditions, as required, and at an ESO onshore Science Party meeting.

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

SOC—Travel costs for IO and USIO meetings and professional conferences; for USIO staff to provide Publications Assistant support for CDEX IODP expeditions, as required, and to attend an ESO onshore Science Party meeting, for nonsailing USIO staff to work at port calls, and to bring off-site USIO staff to participate in on-site meetings.

POC—Travel costs for USIO staff who will sail on FY13 and initial FY14 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 and IODP scientific reports.

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.

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— Payments to IODP Editorial Review Board members, annual physical examinations for seagoing personnel, and printing of annual report.

POC—None budgeted.

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

SOC—Water cooler rental.

POC—None budgeted.

Maintenance and Repair—Maintenance agreements and equipment repairs.

SOC—Copier repairs and copier and forklift maintenance agreement.

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 partnerships to provide learning opportunities. Expedition-specific activities will include current expeditions and supporting legacy resources.

The USIO facilitates education activities through Deep Earth Academy (funded jointly by the USIO and the United States Science Support Program) in cooperation with other U.S. education and outreach groups, conducting teacher education activities; developing, testing, and disseminating educational curriculum that highlights IODP science programs; and implementing live and near-real-time programs that highlight and use 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 FY13

No SOC/POC deliverables are scheduled for FY13.

11.3. BUDGET

With no deliverables scheduled in FY13, there are no funds budgeted for this WBE.

12. OUTREACH

12.1. GOALS

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

The USIO raises the visibility of IODP an innovative international earth science research program to new and existing audiences by targeting informational outreach to the general public, science and general-interest media, scientists and engineers from both within the IODP community and beyond, and decision makers at the national level. USIO Outreach uses expeditions and Program achievements to promote scientific ocean drilling and the scientific data and analysis that emerge from it, and makes the connection between this emerging scientific knowledge and its positive contribution to society worldwide. USIO communications activities and tools 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.

12.2. DELIVERABLES IN FY13

No SOC/POC deliverables are scheduled for FY13.

12.3. BUDGET

With no deliverables scheduled in FY13, there are no funds budgeted for this WBE.