

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

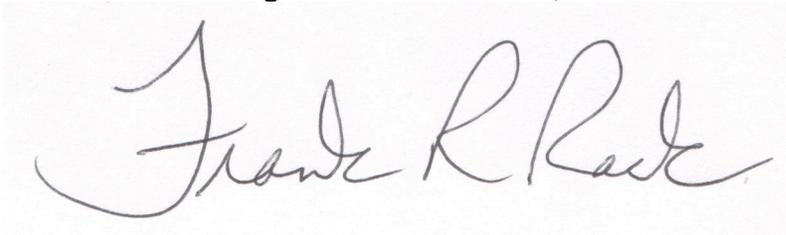
**Joint Oceanographic Institutions, Inc.  
Lamont-Doherty Earth Observatory of Columbia University  
Texas A&M University**

**PROGRAM PLAN  
FY06 to IODP-MI**

For Time Period  
1 October 2005 to 30 September 2006

**AMOUNT PROPOSED FY06: \$20,748,652 (SOC and POC)**

Respectfully Submitted to:  
IODP Management International, Inc.

A handwritten signature in black ink, reading "Frank R. Rack". The signature is written in a cursive style with a large initial "F".

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Frank R. Rack for:  
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19 July 2005



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# USIO FY06 PROGRAM PLAN FOR IODP

This USIO FY06 Program Plan initiates the U.S. Implementing Organization (USIO) scope of work for Integrated Ocean Drilling Program (IODP) activities and deliverables for the current fiscal year. It is based on the current mission forecast and recognizes that the complex nature of IODP operations will require multiyear Program Plans to establish priorities and to allow the procurement of long-lead time equipment and services. The IODP Science Advisory Structure (SAS) has reviewed and prioritized science proposals to recommend an operations schedule that reflects the requirements of the IODP for the near term (1–2 years).

The IODP central management office (IODP Management International, Inc. [IODP-MI]), working together with the other implementing organizations (IOs) and with input from IODP funding agencies (U.S. National Science Foundation [NSF], Japanese Ministry of Education, Culture, Sports, Science and Technology [MEXT], European Consortium for Ocean Drilling Research [ECORD] Management Agency [EMA], and Ministry of Science and Technology [MOST], People's Republic of China), have provided guidance and instruction to the IODP-USIO on the preparation of the USIO contribution to the IODP FY06 Program Plan. The USIO FY06 Program Plan includes a discussion of the goals of the IODP-USIO, all tasks and deliverables, schedules of activities, definitions of projects, and required budgets that incorporate funding allocations from the IODP central management office for science operations, and funding allocations from NSF for platform operations.

In FY04, Joint Oceanographic Institutions, Inc. (JOI), established subcontracts with the College of Geosciences at Texas A&M University (TAMU), through the Texas A&M Research Foundation (TAMRF), and Lamont-Doherty Earth Observatory (LDEO) of Columbia University that formally established the JOI Alliance for IODP. In FY05, JOI established a contract with IODP-MI for science operating costs (SOCs) of the USIO, which complements the contract with NSF for platform operating costs (POCs). Under guidance from NSF and IODP-MI, a USIO FY06 Program Plan has been developed in consultation with the JOI Alliance subcontractors for inclusion in the IODP FY06 Program Plan.

On behalf of the JOI Alliance and as outlined in this Program Plan, TAMRF has contracted with Overseas Drilling Limited (ODL) for the services of the RV *JOIDES Resolution* as currently configured for use as the riserless drilling vessel for IODP-USIO Phase 1 operations. In support of the drilling vessel and with the approval of IODP-MI, the JOI Alliance will provide the full array of science, operations, logging, engineering, information technology, technical, and publications services; laboratory facilities; core repositories; and administrative services. In addition, LDEO has contracted with Schlumberger for the provision of downhole logging equipment and engineering support during IODP-USIO Phase 1.

## JOI ALLIANCE TOTAL SYSTEMS INTEGRATION

In FY06 the JOI Alliance will continue to provide integrated management using six cross-functional teams, each charged with a different set of responsibilities that must be successfully administered and fulfilled. These responsibilities will continue to evolve during FY06 as part of the operational activities for the IODP-USIO. Two overarching teams are responsible for strategic planning, oversight of JOI Alliance mission delivery, prioritization of resources, and Program Plan development. The first of these teams is the JOI Alliance Systems Integration Team (JASIT), which is responsible for strategic planning and systems integration. The other overarching team is the JOI

Alliance Systems Management Team (JASMT), which is responsible for Program management, resource allocation, and overall science services delivery. Four tactical teams are tasked with the planning and implementation of the JOI Alliance's deliverables: (1) scientific drilling operations, (2) technical development, (3) information technology, and (4) publications, reports, and education and outreach.

## **JOI ALLIANCE CONTRACTUAL RELATIONSHIPS**

### **JOI Alliance Prime Contractor**

JOI is the prime contractor with ultimate responsibility for all contractual obligations entered into by the IODP-USIO. JOI's responsibilities will include the following:

- Oversee and assure the performance of management, administrative, financial, and information systems that support the U.S. riserless vessel and vessel operations in IODP.
- Exercise management and financial controls to ensure compliance with contract provisions and to encourage creative, effective, and efficient delivery of services.
- Oversee the development of an updated environmental assessment (EA) and environmental impact statement (EIS) for IODP-USIO riserless drilling operations.
- Lead the JOI Alliance in the long-term planning and strategy development for the IODP-USIO.
- Retain primary responsibility for representation of the U.S. component of IODP and the Program as a whole, when appropriate.
- Retain primary responsibility for clear and effective communication and coordinate linkages with IODP stakeholders including NSF, IODP-MI, Japan Marine Science and Technology Center (JAMSTEC), EMA, MOST, and other IODP partners.
- Coordinate planning for initial drilling operations with Japanese and European IOs, ensuring all operations are consistent with governmental agreements.
- Establish various performance assessment systems that will ensure quality control of key functions of the IODP-USIO.
- Provide information on IODP to other federal agencies and the U.S. Congress and be generally responsible for Program outreach, interactions with the news media, and oversight of programmatic science and outreach efforts.
- Lead efforts to augment NSF resources for IODP by fostering relationships between IODP and other national and international science programs and developing proposals for work in those cases in which Program priorities are coincident.
- Retain primary responsibility for delivery of required publications and reports for the IODP-USIO.
- Coordinate and provide support for IODP-USIO outreach and education activities.

### **JOI Alliance Subcontractors**

LDEO (through Columbia University) and TAMU (through TAMRF) serve as subcontractors to JOI and contribute distinct but complementary capabilities that, collectively, support the full range of activities necessary for implementation of a riserless ship scientific drilling Program by the JOI Alliance. These activities are summarized below and are presented in more detail in subsequent sections of this document.

For the JOI Alliance, IODP-USIO Science Services, LDEO, will provide the following:

- Provision of ongoing management services, including subcontract supervision and panel liaisons.
- Planning and implementation of logging operations on the *JOIDES Resolution*.
- Materials and logistical support required for FY06 operations.
- Support of the maintenance and enhancement of downhole tools necessary to achieve the goals of riserless drilling.
- Provision of support for third-party developers and proponents in the development of expedition-specific tools.
- Support of a collaborative working relationship with IODP-MI, the Japanese and European IOs, and the IODP science advisory panels.

For the JOI Alliance, IODP-USIO Science Services, TAMU, will provide services that are directly related to the scientific and engineering activities necessary to support science cruises, as well as the management of cruise-related shore-based functions (data management, core curation, and publications). Specifically, these service deliverables will include the following:

- Support of science operations (i.e., technical staffing of shipboard laboratories, staff scientists, and engineering operations superintendents).
- Implementation of sound procedures in drilling and laboratory operations that minimize environmental impact, and establishment of best practices for the delivery of scientific results.
- Materials and logistical support of cruise implementation.
- Support of the maintenance and enhancement of analytical equipment and engineering tools necessary to achieve the scientific goals of riserless drilling.
- Support of information technology services.
- Management of the archival data produced by the riserless vessel.
- Curation of cores collected during Deep Sea Drilling Project (DSDP), ODP, and IODP riserless operations.
- Production of required reports.
- Publication of the scientific and technical results produced as a result of riserless drilling.
- Implementation of a health, safety, and environment (HSE) program for the riserless drilling vessel and shore-based facilities.
- Identification of potential risks and provision of recommendations for mitigating security risks of international travel, work in port environments, and at sea.
- Support of a collaborative working relationship with IODP Management International, Inc. (IODP-MI), the Japanese and European implementing organizations (IOs), and the IODP science advisory panels.
- Facilitation of the implementation of IODP-USIO outreach and education activities.

In addition, the administrative services in support of TAMU activities will be managed by TAMRF, which will provide/manage all administrative services (contractual, fiscal, property/procurement, human resources assistance, and travel assistance) to support the science operations carried out by TAMU.

# IODP-USIO FY06 ACTIVITIES

## IODP-USIO Phase 1 Activities

The scope of activities associated with preparation and execution of IODP expeditions will follow previous ODP and early IODP experience. Numerous activities concerning FY06 IODP-USIO Phase 1 expeditions were initiated in FY04 and FY05, including reviewing and assessing potential science programs, long-lead time procurement, weather, clearance, and staffing requirements; procuring, inspecting, and servicing laboratory equipment and tools; restoring inventories; investigating equipment enhancements; preparing documentation; scientific staffing for cruises; and hiring and training of technical staff. Platform operator insurance was arranged as part of the vessel day rate; its adequacy and currency will be verified annually by receipt of insurance cover pages. Among other coverage, operational insurance will provide drilling-peculiar coverage (e.g., control of well, seepage and pollution, third-party property, etc.) utilizing an umbrella, followed by government indemnification should that threshold be reached. Platform operator permits will be a dual responsibility. Permits required for the riserless platform (e.g., American Bureau of Shipping, communication licenses) are the responsibility of the platform operator, with verification of adequacy done by inclusion of the requirements in the contract and enforcement of the appropriate provisions. Drilling clearances are the responsibility of the JOI Alliance and will be addressed by the Deputy Director, IODP-USIO Science Services, TAMU, in coordination with the U.S. State Department.

The JOI Alliance will also deliver the following required reports and publications, as outlined in the contract with NSF:

- JOI will provide information to IODP-MI to maintain and update the IODP Policy Manual.
- The JOI Communications and Development Director, in collaboration with the JOI Communications Associate and members of the science party, will produce news releases and science articles relating to each scheduled cruise on the riserless vessel.
- The JOI Alliance will produce and disseminate Daily Ship Status Reports, Weekly Reports, and Site Summary Reports.
- The JOI Alliance will produce and disseminate the USIO Phase 1 Environmental Assessment, Draft USIO Environmental Impact Statement, USIO Program Plan, USIO Quarterly Operations and Management Reports, and the USIO Annual Report.
- The JOI Alliance will manage production and dissemination of the following publications: Technical Notes, Scientific Prospectuses, Preliminary Reports, and *Proceedings of the Integrated Ocean Drilling Program*, with guidance from IODP-MI.

## Phase 2 Drillship Selection Strategy

The costs to accomplish the procurement process for a U.S. riserless vessel for IODP-USIO Phase 2 is a separate budget request to NSF as part of the JOI Alliance's role as the U.S. systems integration contractor (SIC). Pursuant of this goal, in late FY04 the JOI Alliance released a request for proposals (RFP) for procurement of a scientific ocean drilling vessel (SODV). The release of the RFP was dependent on guidelines governing the NSF Major Research Equipment and Facility Construction (MREFC) process and the authorization of this activity by the NSF. In FY05, the vessel source selection process for the SODV is progressing toward a vessel selection by the end of the fiscal year. Logging services for the SODV will be competitively bid in a process that involves the release of an RFP in mid-FY05 and selection by the end of the fiscal year. The SODV conversion plan will be

prepared by JOI Alliance staff, will include the full participation of NSF and IODP-MI representatives, and will include input from other stakeholders.

## **IODP-USIO BUDGET DEFINITIONS**

### **Platform Operating Costs vs. Science Operating Costs**

The development of budgets for the IODP-USIO FY06 Program Plan required certain assumptions to guide the allocation of costs into “platform operating costs” (POCs) and “science operating costs” (SOCs). This process used to define POCs for the IODP-USIO was based on a directive from the lead agencies (NSF and MEXT) received on 21 December 2004. The lead agency directive provided POC and SOC definitions for use in the development of this Program Plan (see below). All IODP-USIO activities that are not defined by the fundamental principles are considered to be SOCs in this Program Plan. These principles are described below.

### **Lead Agency Guidance**

Annex 1 of the bilateral cooperative agreement between MEXT and NSF concerning cooperation on the Integrated Ocean Drilling Program provides definitions of what are considered POCs and SOCs. Annex 1 definitions are consistent with the interpretation that safely making and completing a hole, with installation of seafloor hardware, are POCs, as is the management and oversight of POC items. Annex 1 definitions also imply that when developmental tools and drilling equipment become operational, funding for these items, in principle, changes from SOC to POC.

The lead agencies encourage that principles of simplicity should be followed wherever possible in the preparation of the budget, recognizing that this may not be possible in all cases. For example, personnel costs for individual positions should normally be assigned simply and wholly to either POC or SOC costs; where positions pertain to mixed POC and SOC responsibilities, the position cost should be split on a 50-50 basis. The implementation of the SOC and POC guidance in this Program Plan is based on judicious evaluation and interpretation of the lead agency guidelines, while maintaining the flexibility to meet the needs of the JOI Alliance and the IODP contracts.

Following IODP Platform and Program Principles, it is an expectation that Platform Providers will provide a fully capable drilling platform to the IODP. Functional, standard scientific equipment should be provided; the costs of providing a scientifically instrumented drilling platform are considered part of the platform mobilization costs and should not be included in the IODP Program costs (SOCs and POCs). In addition, costs of platform demobilization should not be included in the IODP Program costs.

The lead agencies encourage scientific participants to contribute additional funds to IODP activities, through links and funding obtained from other scientific programs and initiatives, including national IODP Programs. Third-party tool development represents an outstanding example of such additional contributions. Following precedent of the Ocean Drilling Program, the lead agencies have made a preliminary determination that downhole instrumentation with long-term, follow-up costs, such as CORK instrumentation and borehole seismometers, represents third-party contributions and so are not SOC Program costs. In contrast, the lead agencies consider that the CORK bodies and casing associated with the CORK and seismometer installation are part of the cost of making a hole, and so are POC costs. The lead agencies consider that IODP Education and Outreach activities are supported by SOC funds.

It is expected that these determinations will evolve with time and experience.

**POC Specific Items**—Numbers in parentheses relate to MEXT-NSF Cooperative Agreement Annex 1 definitions for POCs that are also relevant for cost classification:

1. Costs of the drilling and ship's crew
  - Vessel support:** Medical evacuations (10)
2. Catering services
3. Fuel, vessel supplies, and other related consumables
4. Berthage and port call costs
5. Disposal of wastes
6. Crew travel:
  - Personnel:** Percentage of technical crew change (does not include SOC technician costs)
7. Inspections and insurance
  - Vessel support:**
    - Safety-related insurance, including: control of well seepage, seepage and pollution liability, third-party property liability, cargo liability, charter's legal liability, contractor's pollution liability, worker's compensations and maritime employer's liability, comprehensive general and automobile liability, below the keel, umbrella, and other required policies (10)
    - Percentage of logging insurance policy (10)
8. Drilling equipment, supplies, and related consumables
  - Hardware:**
    - CORK body and platform
    - Casing and casing hangers
    - Bits, beacons, and mud
    - Backoff/severing equipment
    - Explosives and cabinet
    - Drill equipment supplies and consumables
    - Camera systems survey and borehole (9)
    - Fishing tools
    - Reentry cone and related hardware
    - H<sub>2</sub>S system (9)
9. Engineering or geophysical surveys, and data acquisition and laboratory analyses required for the safety of platform and drilling operations
  - Hardware:**
    - Logging cable and drum (8)
    - Natural gamma logging tool (8)
    - Schlumberger Maxis control system (8)
    - Heave-compensated logging winch (8)
    - Cement bond log (8)
    - Logging while drilling/measurement while drilling/logging while coring when required for safety (1, 8, 10)
    - Logging cable head and telemetry cartridge (8)
    - Shooting tool and casing collar locator (8)
    - Laboratory instrumentation for safety analysis
  - Vessel support:**
    - Safety monitoring (1, 10)

Navigation equipment  
Weather forecasting  
Geophysical engineering surveys for final site selection and/or other safety requirements

**Personnel:**

Assistant Laboratory Officer (for safety) (1, 10)  
Geochemistry Technicians (for hydrocarbon safety assessment) (1)  
Backoff/Severing Engineer Officer (1)  
Travel to SSP, PPSP (1, 10)

10. Administration and management costs of the platform operators

**Vessel support:**

Communications (9)  
Clearance costs  
Support vessel (1)  
Logging and other measurements while coring or drilling when required for safety (1, 8, 9)  
Safety and environmental compliance costs (1, 5, 8)  
Shipping of POC (4, 8)  
Initial computer infrastructure (mobilization cost and 9)

**Personnel:**

Operations Superintendent (1, 9)  
Percentage of Health Safety Environment Officer (1, 5, 9)  
Percentage of logistical support (3, 4, 5, 8)  
Percentage of Expedition Project Manager (Staff Scientist) (1)  
Safety training (1)

**SOC Specific Items**—Numbers in parentheses relate to MEXT-NSF Cooperative Agreement Annex 1 definitions for SOCs that are also relevant for cost classification:

1. Technical services

**Hardware:**

Maintenance and upgrades for scientific instrumentation (including instrumentation and personnel costs) (2, 6, 8)

**Personnel:**

Science technicians handling core

2. Computer capability

**Hardware:**

Computer infrastructure upgrade and maintenance (3)

3. Data storage and distribution

4. Description, archiving, and distribution of data and samples

**Vessel support:**

Shipping of core to repository and distribution of core samples from ship to investigators

5. Deployment of a standard suite of logging tools

6. Development of new drilling tools and techniques required by IODP research

**Hardware:**

Logging and other measurements while coring or drilling  
Engineering Development—*Defined as projects with expenditures that exceed \$100,000/year or \$500,000 in total.*  
Engineering Science Support—*Defined as projects with expenditures that do not exceed \$100,000/year or \$500,000 in total. These projects primarily regard maintenance and*

*upgrade of existing tools and support facilities for better tool performance and provide for integrated science requirements, including use of third-party tools or instruments on expeditions.*

7. Program publications
8. Costs of consumables (exclusive of those identified under platform operations costs)

**Hardware:**

Science supplies and consumables (such as D-tubes, gases, etc.)

9. Costs required for administration and management, including the central management office

**Vessel support:**

Percentage of administrative costs, including management and oversight of SOC items

Site Survey Data Bank (large majority of costs related to SOC) (3)

Percentage of logistics costs for SOC support (1, 8)

10. Education and Outreach

In addition to the guidance provided by the lead agencies, IODP-MI provided guidance to the USIO, which included (1) keeping things simple when assigning costs to SOC or POC categories and (2) providing funds to produce and distribute the ECORD Science Operator (ESO) Expedition 310 Scientific Prospectus, Preliminary Report, and *Proceedings of the Integrated Ocean Drilling Program* volume.

Following the guidance provided by IODP-MI and the IODP lead agencies, the JOI Alliance budget request of \$20,748,652 can be partitioned into two programmatic categories: (1) IODP-USIO Phase 1 science operations, which are detailed as SOCs in a budget that is submitted to IODP-MI for approval, and (2) IODP-USIO Phase 1 platform operations, which are detailed as POCs in a budget that will be submitted to NSF for approval. The budget submitted to NSF for approval will include additional funding requests related to the maintaining a future U.S. capability for continued scientific ocean drilling in the IODP. Preparation of the JOI Alliance (IODP-USIO) Program Plan is based on the operational schedule defined by the IODP Science Planning Committee (SPC) for U.S. riserless vessel operations during FY06, which includes the costs associated with the support of one partial and two full scientific expeditions.

The cost breakdown for FY06 is a request to IODP-MI for \$10,966,327 in SOC expenses (submitted in this Program Plan to IODP-MI) and a request to NSF for \$9,782,325 in POC expenses for IODP-USIO Phase 1 operations. The requested SOC budget is \$533,673 under the IODP-MI budget target for the IODP-USIO (\$11,500,000). If necessary, funds could be cut from the DSDP/ODP Core Redistribution project, which is under the Core Curation element, by reducing the proposed effort in FY06.

In the following IODP-USIO budget summary tables, 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 separated out for each JOI Alliance institution in the summary totals that add to the “grand total” for each institution. JOI and LDEO calculate indirect costs on a percentage of the direct costs using formulas described in those institution’s sections of this Program Plan. The TAMU/TAMRF budget is structured with a single administrative fee that can be found in the Management and Administration element budget. The “grand totals” for direct, indirect, and total costs for each institution and the entire IODP-USIO are shown for both the SOC and POC budget requests in the “SOC WBE Budget Detail” and the “POC WBE Budget Detail,” respectively. The budget summary tables provide an integrated view of all the budget requests detailed in the other sections of this Program Plan. The detailed budget justification for these requests can be found in each appropriate section of the IODP-USIO Program Plan.

Specific projects or subelements have been called out in these budgets—for example, an “Engineering Development” subtotal is provided under the Technical, Engineering, and Science Support element and a “DSDP/ODP Core Redistribution” project subtotal is provided under the Core Curation element. In addition, selected platform costs (day rate, fuel and lubricants, per diem, port calls, insurance, and a category for “other”) are provided under the Technical, Engineering, and Science Support element to clearly identify these requests.

## FY06 IODP-USIO SOC WBE BUDGET SUMMARY

Element	JOI	LDEO	TAMU	Total
Management and Administration	590,715	277,719	1,400,924	2,269,358
Technical, Engineering, and Science Support	0	1,194,436	3,545,249	4,739,685
<b>Subtotal Technical, Engineering, and Science Support</b>	0	1,194,436	3,120,249	4,314,685
<b>Subtotal Engineering Development</b>	0	0	425,000	425,000
Core Curation	0	0	1,251,655	1,251,655
<b>Subtotal Core Curation</b>	0	0	745,260	745,260
<b>Subtotal DSDP/ODP Core Redistribution</b>	0	0	506,395	506,395
Data Management	0	157,584	784,897	942,481
Publications	0	0	882,468	882,468
Logging	0	659,652	0	659,652
Education and Outreach	221,028	0	0	221,028
<b>Grand Total IODP-USIO SOC WBE</b>	<b>811,743</b>	<b>2,289,391</b>	<b>7,865,193</b>	<b>10,966,327</b>

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

Element	JOI	LDEO	TAMU	Total
<b>Total Direct Costs</b>	612,299	1,822,553	7,731,682	10,166,534
<b>Indirect Costs and Administrative Fees</b>	199,444	466,838	133,511	799,793
<b>Grand Total IODP-USIO SOC WBE</b>	<b>811,743</b>	<b>2,289,391</b>	<b>7,865,193</b>	<b>10,966,327</b>

## FY06 IODP-USIO POC WBE BUDGET SUMMARY

Element	JOI	LDEO	TAMU	Total
Management and Administration	564,184	76,758	444,868	1,085,810
Technical, Engineering, and Science Support	0	41,913	8,251,916	8,293,829
<b>Subtotal Technical, Engineering, and Science Support</b>	0	41,913	8,251,916	8,293,829
<b>Subtotal Engineering Development</b>	0	0	0	0
Core Curation	0	0	0	0
<b>Subtotal Core Curation</b>	0	0	0	0
<b>Subtotal DSDP/ODP Core Redistribution</b>	0	0	0	0
Data Management	0	0	0	0
Publications	0	0	0	0
Logging	0	402,686	0	402,686
Education and Outreach	0	0	0	0
<b>Grant Total IODP-USIO POC WBE</b>	<b>564,184</b>	<b>521,357</b>	<b>8,696,784</b>	<b>9,782,325</b>

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

Element	JOI	LDEO	TAMU	Total
<b>Total Direct Costs</b>	418,894	480,721	8,563,273	9,462,888
<b>Indirect Costs and Administrative Fees</b>	145,290	40,636	133,511	319,437
<b>Grand Total</b>	<b>564,184</b>	<b>521,357</b>	<b>8,696,784</b>	<b>9,782,325</b>

# FY06 IODP-USIO SOC WBE BUDGET DETAIL

Element/Expense Category	JOI	LDEO	TAMU	Total
<b>Management and Administration</b>				
Salaries and Fringes	310,671	165,928	1,077,178	1,553,777
Travel	56,500	9,469	122,784	188,753
Supplies	15,450	1,930	12,738	30,118
Shipping	9,500	908	3,338	13,746
Communication	12,500	979	13,132	26,611
Contractual Services	7,500	0	0	7,500
Equipment	12,500	2,735	0	15,235
Other Direct Costs	15,000	515	38,243	53,758
<b>Total Direct Costs</b>	<b>439,621</b>	<b>182,464</b>	<b>1,267,413</b>	<b>1,889,498</b>
Indirect Costs or Administrative Fees	151,094	95,255	133,511	379,860
<b>Total Management and Administration</b>	<b>590,715</b>	<b>277,719</b>	<b>1,400,924</b>	<b>2,269,358</b>
<b>Technical, Engineering, and Science Support</b>				
Salaries and Fringes	0	447,546	1,469,070	1,916,616
Travel	0	48,035	91,920	139,955
Supplies	0	26,360	56,704	83,064
Shipping	0	4,894	95,831	100,725
Communication	0	7,038	30,152	37,190
Contractual Services	0	297,443	0	297,443
Equipment	0	43,436	593,806	637,242
Other Direct Costs	0	34,618	782,766	817,384
Day Rate	0	0	0	0
Fuel and Lubricants	0	0	0	0
Per Diem	0	0	0	0
Port Calls	0	0	0	0
Insurance	0	0	0	0
Other	0	34,618	782,766	817,384
<b>Subtotal Technical, Engineering, and Science Support</b>	<b>0</b>	<b>909,370</b>	<b>3,120,249</b>	<b>4,029,619</b>
<b>Subtotal Engineering Development</b>	<b>0</b>	<b>0</b>	<b>425,000</b>	<b>425,000</b>
<b>Total Direct Costs</b>	<b>0</b>	<b>909,370</b>	<b>3,545,249</b>	<b>4,454,619</b>
Indirect Costs or Administrative Fees	0	285,066	0	285,066
<b>Total Technical, Engineering, and Science Support</b>	<b>0</b>	<b>1,194,436</b>	<b>3,545,249</b>	<b>4,739,685</b>
<b>Core Curation</b>				
Salaries and Fringes	0	0	403,297	403,297
Travel	0	0	22,751	22,751
Supplies	0	0	35,700	35,700
Shipping	0	0	37,600	37,600
Communication	0	0	4,630	4,630
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	241,282	241,282
<b>Subtotal Core Curation</b>			<b>745,260</b>	<b>745,260</b>
<b>Subtotal DSDP/ODP Core Redistribution</b>			<b>506,395</b>	<b>506,395</b>
<b>Total Direct Costs</b>	<b>0</b>	<b>0</b>	<b>1,251,655</b>	<b>1,251,655</b>
Indirect Costs or Administrative Fees	0	0	0	0
<b>Total Core Curation</b>	<b>0</b>	<b>0</b>	<b>1,251,655</b>	<b>1,251,655</b>

Note: Other Direct Costs subcategories are shown on the detailed Work Breakdown Element budgets. (Continued on next two pages.)

## FY06 IODP-USIO SOC WBE BUDGET DETAIL (CONTINUED)

Element/Expense Category	JOI	LDEO	TAMU	Total
<b>Data Management</b>				
Salaries and Fringes	0	97,514	414,051	511,565
Travel	0	3,000	18,168	21,168
Supplies	0	1,000	11,000	12,000
Shipping	0	500	1,000	1,500
Communication	0	500	0	500
Contractual Services	0	0	0	0
Equipment	0	0	3,400	3,400
Other Direct Costs	0	482	337,278	337,760
<b>Total Direct Costs</b>	<b>0</b>	<b>102,996</b>	<b>784,897</b>	<b>887,893</b>
Indirect Costs or Administrative Fees	0	54,588	0	54,588
<b>Total Data Management</b>	<b>0</b>	<b>157,584</b>	<b>784,897</b>	<b>942,481</b>
<b>Publications</b>				
Salaries and Fringes	0	0	700,009	700,009
Travel	0	0	28,175	28,175
Supplies	0	0	9,800	9,800
Shipping	0	0	17,810	17,810
Communication	0	0	4,000	4,000
Contractual Services	0	0	74,200	74,200
Equipment	0	0	0	0
Other Direct Costs	0	0	48,474	48,474
<b>Total Direct Costs</b>	<b>0</b>	<b>0</b>	<b>882,468</b>	<b>882,468</b>
Indirect Costs or Administrative Fees	0	0	0	0
<b>Total Publications</b>	<b>0</b>	<b>0</b>	<b>882,468</b>	<b>882,468</b>
<b>Logging</b>				
Salaries and Fringes	0	0	0	0
Travel	0	13,089	0	13,089
Supplies	0	11,835	0	11,835
Shipping	0	9,319	0	9,319
Communication	0	1,031	0	1,031
Contractual Services	0	559,548	0	559,548
Equipment	0	7,932	0	7,932
Other Direct Costs	0	24,969	0	24,969
<b>Total Direct Costs</b>	<b>0</b>	<b>627,723</b>	<b>0</b>	<b>627,723</b>
Indirect Costs or Administrative Fees	0	31,929	0	31,929
<b>Total Logging</b>	<b>0</b>	<b>659,652</b>	<b>0</b>	<b>659,652</b>

(Continued on next page.)

## FY06 IODP-USIO SOC WBE BUDGET DETAIL (CONTINUED)

Element/Expense Category	JOI	LDEO	TAMU	Total
<b>Education and Outreach</b>				
Salaries and Fringes	75,708	0	0	75,708
Travel	45,000	0	0	45,000
Supplies	2,800	0	0	2,800
Shipping	5,650	0	0	5,650
Communication	3,500	0	0	3,500
Contractual Services	40,020	0	0	40,020
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Total Direct Costs	172,678	0	0	172,678
Indirect Costs or Administrative Fees	48,350	0	0	48,350
<b>Total Education and Outreach</b>	<b>221,028</b>	<b>0</b>	<b>0</b>	<b>221,028</b>
<b>Grand Total Direct Costs</b>	<b>612,299</b>	<b>1,822,553</b>	<b>7,731,682</b>	<b>10,166,534</b>
<b>Grand Total Indirect Costs and Administrative Fees</b>	<b>199,444</b>	<b>466,838</b>	<b>133,511</b>	<b>799,793</b>
<b>Grand Total IODP-USIO SOC WBE</b>	<b>811,743</b>	<b>2,289,391</b>	<b>7,865,193</b>	<b>10,966,327</b>

# FY06 IODP-USIO POC WBE BUDGET DETAIL

Element/Expense Category	JOI	LDEO	TAMU	Total
<b>Management and Administration</b>				
Salaries and Fringes	289,944	41,482	254,296	585,722
Travel	56,500	4,734	34,498	95,732
Supplies	15,450	965	4,162	20,577
Shipping	9,500	454	1,112	11,066
Communication	12,500	489	4,544	17,533
Contractual Services	7,500	0	0	7,500
Equipment	12,500	2,735	0	15,235
Other Direct Costs	15,000	257	12,745	28,002
<b>Total Direct Costs</b>	<b>418,894</b>	<b>51,116</b>	<b>311,357</b>	<b>781,367</b>
Indirect Costs or Administrative Fees	145,290	25,642	133,511	304,443
<b>Total Management and Administration</b>	<b>564,184</b>	<b>76,758</b>	<b>444,868</b>	<b>1,085,810</b>
<b>Technical, Engineering, and Science Support</b>				
Salaries and Fringes	0	27,100	598,876	625,976
Travel	0	0	4,299	4,299
Supplies	0	0	14,034	14,034
Shipping	0	0	45,144	45,144
Communication	0	294	51,112	51,406
Contractual Services	0	0	0	0
Equipment	0	0	997	997
Other Direct Costs	0	0	7,537,454	7,537,454
Day Rate	0	0	6,098,708	6,098,708
Fuel and Lubricants	0	0	939,900	939,900
Per Diem	0	0	132,828	132,828
Port Calls	0	0	188,271	188,271
Insurance	0	0	158,112	158,112
Other	0	0	19,635	19,635
<b>Subtotal Technical, Engineering, and Science Support</b>	<b>0</b>	<b>27,394</b>	<b>8,251,916</b>	<b>8,279,310</b>
<b>Subtotal Engineering Development</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Direct Costs</b>	<b>0</b>	<b>27,394</b>	<b>8,251,916</b>	<b>8,279,310</b>
Indirect Costs or Administrative Fees	0	14,519	0	14,519
<b>Total Technical, Engineering, and Science Support</b>	<b>0</b>	<b>41,913</b>	<b>8,251,916</b>	<b>8,293,829</b>
<b>Core Curation</b>				
Salaries and Fringes	0	0	0	0
Travel	0	0	0	0
Supplies	0	0	0	0
Shipping	0	0	0	0
Communication	0	0	0	0
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
<b>Subtotal Core Curation</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Subtotal DSDP/ODP Core Redistribution</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Direct Costs</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Indirect Costs or Administrative Fees	0	0	0	0
<b>Total Core Curation</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Note: Other Direct Costs subcategories are shown on the detailed Work Breakdown Element budgets. (Continued on next two pages.)

## FY06 IODP-USIO POC WBE BUDGET DETAIL (CONTINUED)

Element/Expense Category	JOI	LDEO	TAMU	Total
<b>Data Management</b>				
Salaries and Fringes	0	0	0	0
Travel	0	0	0	0
Supplies	0	0	0	0
Shipping	0	0	0	0
Communication	0	0	0	0
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Total Direct Costs	0	0	0	0
Indirect Costs or Administrative Fees	0	0	0	0
<b>Total Data Management</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Publications</b>				
Salaries and Fringes	0	0	0	0
Travel	0	0	0	0
Supplies	0	0	0	0
Shipping	0	0	0	0
Communication	0	0	0	0
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Total Direct Costs	0	0	0	0
Indirect Costs or Administrative Fees	0	0	0	0
<b>Total Publications</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Logging</b>				
Salaries and Fringes	0	0	0	0
Travel	0	0	0	0
Supplies	0	769	0	769
Shipping	0	0	0	0
Communication	0	128	0	128
Contractual Services	0	401,314	0	401,314
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Total Direct Costs	0	402,211	0	402,211
Indirect Costs or Administrative Fees	0	475	0	475
<b>Total Logging</b>	<b>0</b>	<b>402,686</b>	<b>0</b>	<b>402,686</b>

(Continued on next page.)

## FY06 IODP-USIO POC WBE BUDGET DETAIL (CONTINUED)

Element/Expense Category	JOI	LDEO	TAMU	Total
<b>Education and Outreach</b>				
Salaries and Fringes	0	0	0	0
Travel	0	0	0	0
Supplies	0	0	0	0
Shipping	0	0	0	0
Communication	0	0	0	0
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Cost	0	0	0	0
Total Direct Costs	0	0	0	0
Indirect Costs or Administrative Fees	0	0	0	0
<b>Total Education and Outreach</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Grand Total Direct Costs</b>	<b>418,894</b>	<b>480,721</b>	<b>8,563,273</b>	<b>9,462,888</b>
<b>Grand Total Indirect Costs and Administrative Fees</b>	<b>145,290</b>	<b>40,636</b>	<b>133,511</b>	<b>319,437</b>
<b>Grand Total IODP-USIO POC WBE</b>	<b>564,184</b>	<b>521,357</b>	<b>8,696,784</b>	<b>9,782,325</b>

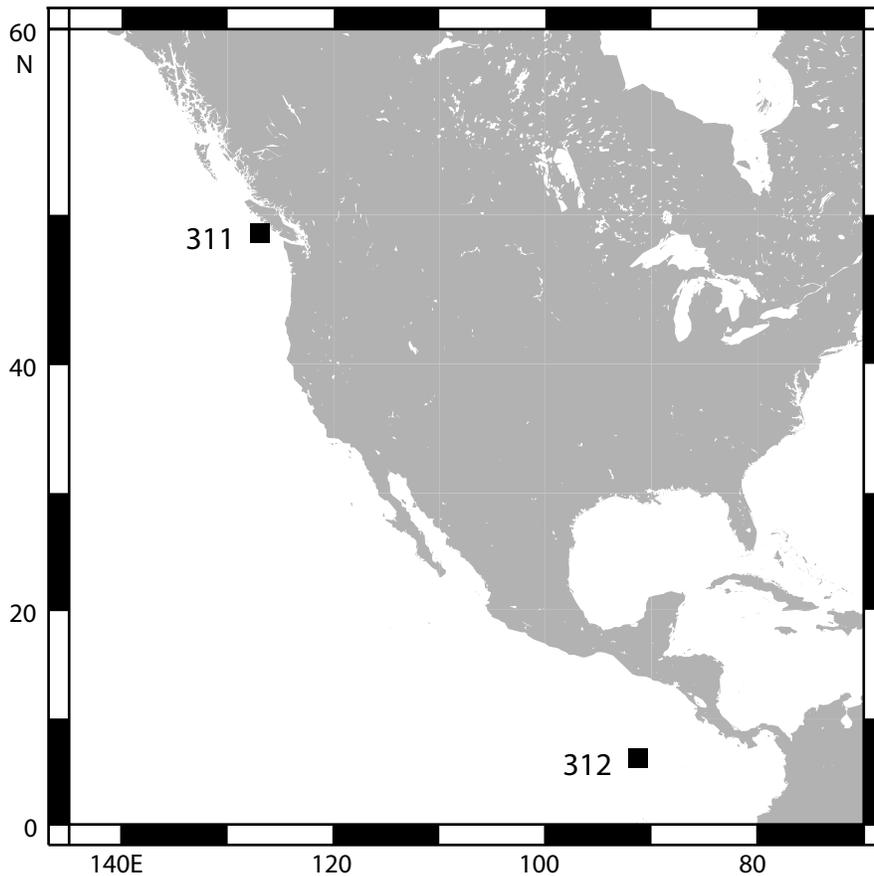
# EXPEDITION OPERATIONS

## Introduction

The FY06 Program consists of the conclusion of Expedition 311, followed by one expedition in the eastern Pacific and demobilization. A total of 123 operating days are proposed in FY06, consisting of 29 days in transit, 31 port call days, and 63 days focused on science delivery (on site and between-site transit). Note that only 29 days of Expedition 311 (consisting of 3 days in transit and 26 days on site) are included in the FY06 Program. The expedition schedule is summarized below.

28 August–29 October 2005  
29 November–29 December 2005

Expedition 311: Cascadia Margin Gas Hydrates  
Expedition 312: Superfast-Spreading Crust 3



## Operations

### ***IODP Expedition 311: Cascadia Margin Gas Hydrates***

The Cascadia Margin Gas Hydrates margin proposal successfully demonstrated the need for scientific ocean drilling in an accretionary prism environment to better constrain the models concerning the formation of gas hydrates. The original proposal has been adapted to accommodate a shortened coring program consisting of 37 days, with the understanding that the remaining aspects of the proposal will be completed during a future expedition. The scheduled expedition will consist of completing a series of sites across the northern Cascadia accretionary prism devoted to improving the understanding of the deep origin of methane, its upward transport, its incorporation in gas

hydrate, and its subsequent loss to the seafloor. A primary focus will be documenting the widespread seafloor-parallel layer of dispersed hydrate associated with bottom-simulating seismic reflectors.

#### **Proposed Operations**

A revised science plan was developed with the lead proponents that maximize the delivered science within the constraints of available operating days and resources. The reduced program maintains the spirit of the original proposal, thereby focusing on completing a number of holes across the accretionary prism to examine the time-space progression of gas hydrate formation and dissociation in this environment. Primary tools will include advanced piston core barrel (APC) and extended core barrel (XCB) coring, logging while drilling (LWD), wireline logging, and a zero-offset vertical seismic profile (VSP). Significant sampling for gas hydrates and microbiology is anticipated. Many of the downhole experiments and monitoring originally proposed will not be possible.

#### **Environment and Safety**

Potential problems include hole stability and gas or fluid flow.

#### **Logistics**

Operations for the Expedition 311 require an estimated 61 days (5 in port, 19 in transit, and 37 on site).

#### ***IODP Expedition 312: Superfast-Spreading Crust 3***

ODP Leg 206 resulted, for the first time in scientific ocean drilling, in the successful construction of the borehole infrastructure required for deep drilling into the ocean basement. Expeditions 309 and 312 (Superfast-Spreading Crust 2 and 3) will return to ODP Hole 1256B with the objective of recovering a complete section through superfast-spreading (>200 m/yr) oceanic crust. Expedition 312 is a continuation of Expedition 309 activities conducted in FY05.

#### **Proposed Operations**

From an operational standpoint, Expedition 312 will be a routine hard rock expedition. During ODP Leg 206, Hole 1256B was cased into basement and cored 500 m into basement. The hole was left clean and open for further deepening, which will have taken place during Expedition 309. Expedition 312 will deepen Hole 1256B by RCB coring to the maximum depth possible. The hole will be logged with standard tool strings as well as the ultrasonic borehole imager and a zero-offset VSP experiment. Significant microbiological sampling is expected as we continue to probe the depth of the deep crustal biosphere.

#### **Environment and Safety**

Hole stability and slow rates of penetration may limit the achievable depth of the hole, although instability in the sedimentary part of the section has been minimized because Hole 1256B is cased into basement and during ODP Leg 206 the basement drilled cleanly and relatively rapidly.

#### **Logistics**

Operations for the Expedition 312 require an estimated 61 days (5 in port, 19 in transit, and 37 on site).

#### ***Demobilization: Galveston***

The costs to accomplish the demobilization of the *JOIDES Resolution* will be submitted as a separate budget request to NSF as part of the JOI Alliance's role as the U.S. systems integration contractor (SIC). Information is provided here to highlight these plans for the vessel. At the demobilization port, all laboratory equipment and supplies, drilling operations equipment and hardware, logging systems, and information technology (IT) equipment will be removed from the vessel to a storage yard in either the Houston or College Station, Texas, or Palisades, New York,

areas. Leased subcontractor equipment will be removed from the vessel and delivered to the appropriate vendor location. Selected equipment such as positive displacement motors, underreamers, cementing manifold, fishing tools, and so forth will be refurbished as required during the drilling hiatus in preparation for Phase 2 operations. All laboratory and computer equipment will be taken to College Station and either declared surplus or refurbished and placed in storage ready for installation on the IODP-USIO Phase 2 vessel. Logging tools and acquisition systems will be returned to IODP-USIO Science Services, LDEO, for maintenance and repair work in preparation for Phase 2 operations. Demobilization of IODP-USIO equipment off the *JOIDES Resolution* will require an estimated 26 days in port.

# IODP-USIO EXPEDITION BUDGET SUMMARY

EXPENSE CATEGORIES	Expedition 311		Expedition 312	
	SOC	POC	SOC	POC
<b>IODP-USIO Science Services, LDEO:</b>				
Salaries and Fringes	11,744	0	22,313	0
Travel	6,488	0	6,824	0
Supplies	3,856	251	8,112	527
Shipping	3,037	0	6,387	0
Communication	336	41	706	88
Equipment	2,473	0	5,203	0
Day Rates	119,189	128,194	344,660	270,992
Insurance	30,836	480	64,863	1,021
Other Direct Costs	7,786	0	16,377	0
<b>Total Direct Costs</b>	<b>35,721</b>	<b>292</b>	<b>65,922</b>	<b>615</b>
<b>Modified Total Direct Costs</b>	<b>33,247</b>	<b>292</b>	<b>60,720</b>	<b>615</b>
Indirect Costs	17,621	155	32,182	326
<b>IODP-USIO Science Services, LDEO Subtotal</b>	<b>203,366</b>	<b>129,121</b>	<b>507,627</b>	<b>272,954</b>
<b>IODP-USIO Science Services, TAMU:</b>				
Salaries and Fringes	373,579	190,222	827,211	421,207
Travel	22,032	10,379	48,785	22,983
Supplies	10,983	4,677	24,318	10,357
Shipping	29,767	14,045	65,914	31,099
Communication	2,273	15,823	5,135	36,289
Equipment	964	321	2,027	676
<b>Other Direct Costs</b>	<b>32,112</b>	<b>2,253,157</b>	<b>70,920</b>	<b>5,289,296</b>
Day Rates	0	1,850,170	0	4,248,538
Fuel and Lubricants	0	285,016	0	654,884
Per Diem	0	40,190	0	92,638
Port Calls	0	20,000	0	168,271
Insurance	75	47,967	172	110,145
Other	32,037	9,814	70,748	14,820
Training	3,310	0	7,500	0
Business Conferences	1,622	1,474	3,590	3,264
Software	7,840	131	17,948	236
Services	8,210	5,769	18,178	5,943
Other Computing Services	2,555	852	5,658	1,855
TAMU Computing Services	47	16	103	34
Furniture	481	160	104	355
Recruiting	3,327	1,109	7,368	2,456
Maintenance and Repair	4,334	200	9,597	443
Library	311	103	702	234
Administrative Fee	41,532	41,532	91,974	91,974
<b>IODP-USIO Science Services, TAMU/TAMRF Subtotal</b>	<b>513,242</b>	<b>2,530,156</b>	<b>1,136,284</b>	<b>5,903,881</b>
<b>Expedition Totals by SOC and POC</b>	<b>716,608</b>	<b>2,659,277</b>	<b>1,643,911</b>	<b>6,176,835</b>
<b>Expedition Grand Totals</b>	<b>3,375,885</b>		<b>7,820,746</b>	

Notes: The expedition costs presented in this table reflect FY06 cost estimates; they do not reflect the total expedition costs. The majority of the costs for Expedition 311 are in the FY05 Program Plan. In addition, long-lead items and hardware/equipment costs for Expedition 312 were incurred during FY05.

# GLOSSARY OF EXPENSE CATEGORIES—EXPEDITIONS

## IODP-USIO Science Services, LDEO, Costs

**Salaries and Fringes**—Expedition-based salaries including fringes and sea pay for logging scientists during the cruise. Salaries for pre- and postcruise work are not included. Salaries for shore-based processing and other technical support are also not included.

**Travel**—Travel costs of seagoing personnel going to and from the drillship. It does not cover pre- and postcruise travel associated with the cruise (e.g., precruise meetings).

**Supplies**—Cost of replenishing supplies for the downhole measurements laboratory and for upgrades/additions to the software for this laboratory.

**Shipping**—Costs for shipments to and from the ship.

**Communication**—Costs for phone and fax communication to the ship, as well as satellite transmission of data.

**Equipment**—Prorated costs of computer, scientific, and engineering equipment for use on the ship over a period of time greater than one expedition.

**Day Rate**—Costs associated with the leasing of standard tools and the associated Schlumberger engineering support services. POCs are for equipment needed for backoff and severing services, including the Schlumberger engineer day rate.

**Insurance**—Insurance for standard and specialty logging tools during below-the-keel deployments. POCs are for equipment needed for backoff and severing services.

**Other Direct Costs**—Costs not covered in other categories, such as upgrade, modifications, and repair of non-Schlumberger tools and data acquisition systems.

**Indirect Costs**—Indirect costs at 53% are assessed on all charges except permanent equipment, tuition remission, and downhole tool insurance. In addition, subcontracts are charged indirect costs on the first \$25,000 of each contract. The indirect cost for all of the existing subcontracts was included in the FY04 Program Plan, so these subcontracts are not subject to indirect cost during FY06. Modified total direct costs (MTDC) are the total direct costs minus these exceptions.

## IODP-USIO Science Services, TAMU/TAMRF, Costs

**Salaries and Fringes**—Salaries, fringes, and sea pay directly associated with specific expeditions, along with pro rata amounts of the same items for employee efforts in support of expedition activities.

**Travel**—Transportation, per diem, and lodging in support of expedition activities (e.g., travel to and from the ship at port calls for all seagoing personnel and other Program employees attending port call, postcruise travel).

**Supplies**—Supplies (e.g., drilling supplies, laboratory supplies, core liners, etc.), and safety equipment for the ship, and personnel and departmental pro rata expenses associated with the annual cost of supporting the science plan at sea.

**Shipping**—The majority of costs contained in this category are expedition-specific costs and involve shipment of equipment and supplies to and from the ship. There are funds associated with shipment/ mailing of items in support of expedition-specific activities throughout the year.

**Communication**—Satellite and regular communications charges between the *JOIDES Resolution* and shore-based personnel. Shore-based cost incurred in support of expedition activities. Some costs are expedition specific, while others are incurred in support of multiple expeditions.

**Equipment**—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:**

**Day Rates**—Cost of staffing the ship, including the sailing crew and drilling personnel. It does not cover the cost of the IODP-USIO Science Services, TAMU personnel or the scientists on board the ship. The day rate varies according to the mode of the ship, which is generally operating, standing by, or cruising. 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). When the cumulative change in the CPI-U and ECI (since the last increase) equals or exceeds 2%, the day rates will be adjusted by the percentage change. The adjustment takes effect at the beginning of the month following the increase and cannot occur more frequently than every 6 months.

**Fuel and Lubricants**—Refuelings at an average cost per metric ton and associated costs.

**Per Diem**—Catering charges for 45 personnel per month based on the most recent averages of shipboard participants. This category does not include ODL, SOS (roughnecks and roustabouts) or Catermar personnel, as they are accounted for in the day rate.

**Port Calls**—Locations have a definite effect on the cost of port calls, which covers agents' expenses and freight associated with resupplying the ship. During each port call, cores and equipment are off-loaded from the previous cruise and supplies are loaded for the upcoming expedition. ODL is reimbursed for port agent charges and the shipment of food and related supplies. Shipment of cores, drilling equipment, and laboratory supplies is arranged by IODP-USIO, Science Services, TAMU, and paid for by IODP-USIO Science Services, TAMRF. Similarly, IODP-USIO Science Services, TAMRF, purchases all drilling equipment and laboratory supplies necessary for meeting the objectives of the expedition.

**Insurance (Ship Operations–General Support)**—The coverage outlined in Appendix I (e.g., IODP-USIO Science Services, TAMRF Program Insurance).

**Relocation**—Relocation costs for new employees.

**Training**—Funds for training of the shipboard staff and other Program employees who receive specific training (e.g., Labview, Novell, etc.) that supports shipboard activities. The costs are both expedition specific and pro rata (i.e., multiple-expedition support).

**Business Conferences**—Incidental expenses associated with meetings hosted by IODP-USIO Science Services, TAMU.

**Software**—Upgrades to existing software.

**Services**—Cost to cover medical evacuation, other miscellaneous charges payable to the ship's subcontractor. Expert assistance. Costs associated with temporary employees hired through companies/corporations, drill pipe maintenance, wireline severing charges, shipboard maintenance service calls, transfer fees, weather reports, and physical examinations for seagoing personnel.

**Other Computing Services**—Use of off-campus computer services.

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

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

*Furniture*—Office furniture.

*Recruiting*—Funds for recruitment of seagoing personnel.

*Maintenance and Repair*—Funds for repairing drilling, coring, operations, and laboratory equipment for the ship.

*Library*—Funds for books, journals, and other scientific resources.



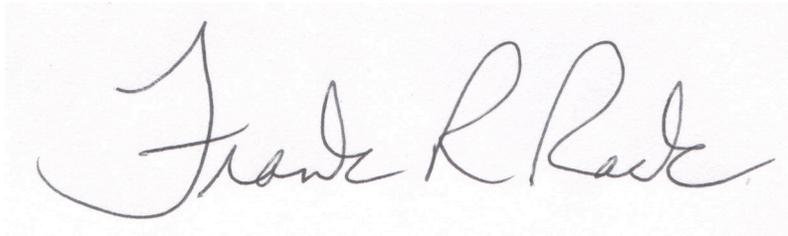
**INTEGRATED OCEAN DRILLING PROGRAM  
United States Implementing Organization  
Systems Integration Contractor  
Joint Oceanographic Institutions, Inc.**

**PROGRAM PLAN  
FY06 for IODP-MI**

For Time Period  
1 October 2005 to 30 September 2006

**AMOUNT PROPOSED FY06: \$1,375,927 (SOC and POC)**

Respectfully Submitted to:  
IODP Management International, Inc.

A handwritten signature in black ink that reads "Frank R. Rack". The signature is written in a cursive style with a large initial "F".

---

Frank R. Rack for:  
Steven R. Bohlen  
President, Joint Oceanographic Institutions, Inc.  
Executive Director, Ocean Drilling Programs  
Joint Oceanographic Institutions, Inc.  
Washington DC 20005

19 July 2005



# INTRODUCTION

Joint Oceanographic Institutions, Inc., (JOI) is a nonprofit (501(c)3) organization whose mission is to lead and manage large national and international science programs for the ocean sciences community. JOI members are drawn from 20 of the largest and most productive research institutions in the areas of marine geology, geophysics, and oceanography in the United States. JOI was created more than 25 years ago to help lead the U.S. effort in scientific ocean drilling. JOI managed the international phase of the Deep Sea Drilling Project and has been the prime (systems integration) contractor for the Ocean Drilling Program (ODP) from its inception in 1983. For nearly 20 years, through subcontracts with Lamont-Doherty Earth Observatory (LDEO) of Columbia University and Texas A&M University (TAMU), JOI has provided central management and, through subcontractors, the full array of services at sea and on land for ODP. In addition, JOI has managed or supported a number of related activities including the Joint Oceanographic Institutions for Deep Earth Sampling (JOIDES) Advisory Structure for ODP through the JOIDES office and the U.S. Science Support Program (USSSP), which supports U.S. participation in ODP.

In its role as the Integrated Ocean Drilling Program U.S. Implementing Organization (IODP-USIO) Program Office and the lead organization in the JOI Alliance (i.e., the systems integration contractor to the National Science Foundation [NSF] for IODP-USIO riserless drilling vessel operations), JOI has the principal responsibility for overseeing programmatic, contractual, and the fiscal management activities associated with the FY06 IODP-USIO Program Plan.

The key elements of JOI's responsibilities under this plan include the following:

- Oversee and assure the performance of management, administrative, financial, and information systems that support the U.S. riserless vessel and vessel operations in IODP.
- Exercise management and financial controls to ensure compliance with contract provisions and to encourage creative, effective, and efficient delivery of services.
- Oversee the development of an updated environmental assessment (EA) and environmental impact statement (EIS) for IODP-USIO riserless drilling operations.
- Lead the JOI Alliance in the long-term planning and strategy development for the IODP-USIO.
- Retain primary responsibility for representation of the U.S. component of IODP and the Program as a whole, when appropriate.
- Retain primary responsibility for clear and effective communication and coordinate linkages with IODP-USIO stakeholders including NSF, the IODP central management office, Japan Marine Science and Technology Center (JAMSTEC), European Consortium for Ocean Drilling Research [ECORD] Management Agency [EMA], Chinese Ministry of Science and Technology (MOST), and other IODP partners.
- Coordinate planning for initial drilling operations with Japanese and European implementing organizations (IOs), ensuring that all operations are consistent with governmental agreements.
- Establish various performance assessment systems that will ensure quality control of key functions of the IODP-USIO.
- Provide information on IODP and IODP-USIO to other federal agencies and the U.S. Congress and be generally responsible for program outreach, interactions with the news media, and oversight of programmatic science and outreach efforts.

- Lead efforts to augment NSF resources for IODP-USIO by fostering relationships between IODP-USIO and other national and international science programs and developing proposals for work in those cases in which Program priorities are coincident.
- Retain primary responsibility for coordinating required publications and reports for the IODP-USIO.
- Coordinate and provide support for IODP-USIO outreach and education activities, which will include both shore- and ship-based components.

JOI will work with its subcontractors to ensure that all of these primary tasks are carried out in a responsible and professional manner and in keeping with the directives of NSF and guidance provided by IODP Management International, Inc. (IODP-MI) and the Science Advisory Structure (SAS) panels. JOI will also maintain communications with other platform operators (JAMSTEC/CDEX and ECORD/ECORD Management Agency [EMA]/ECORD Science Operator [ESO]) and the international scientific community through the IODP-MI Office and the scientific advisory structure of IODP.

## **GENERAL OPERATIONS**

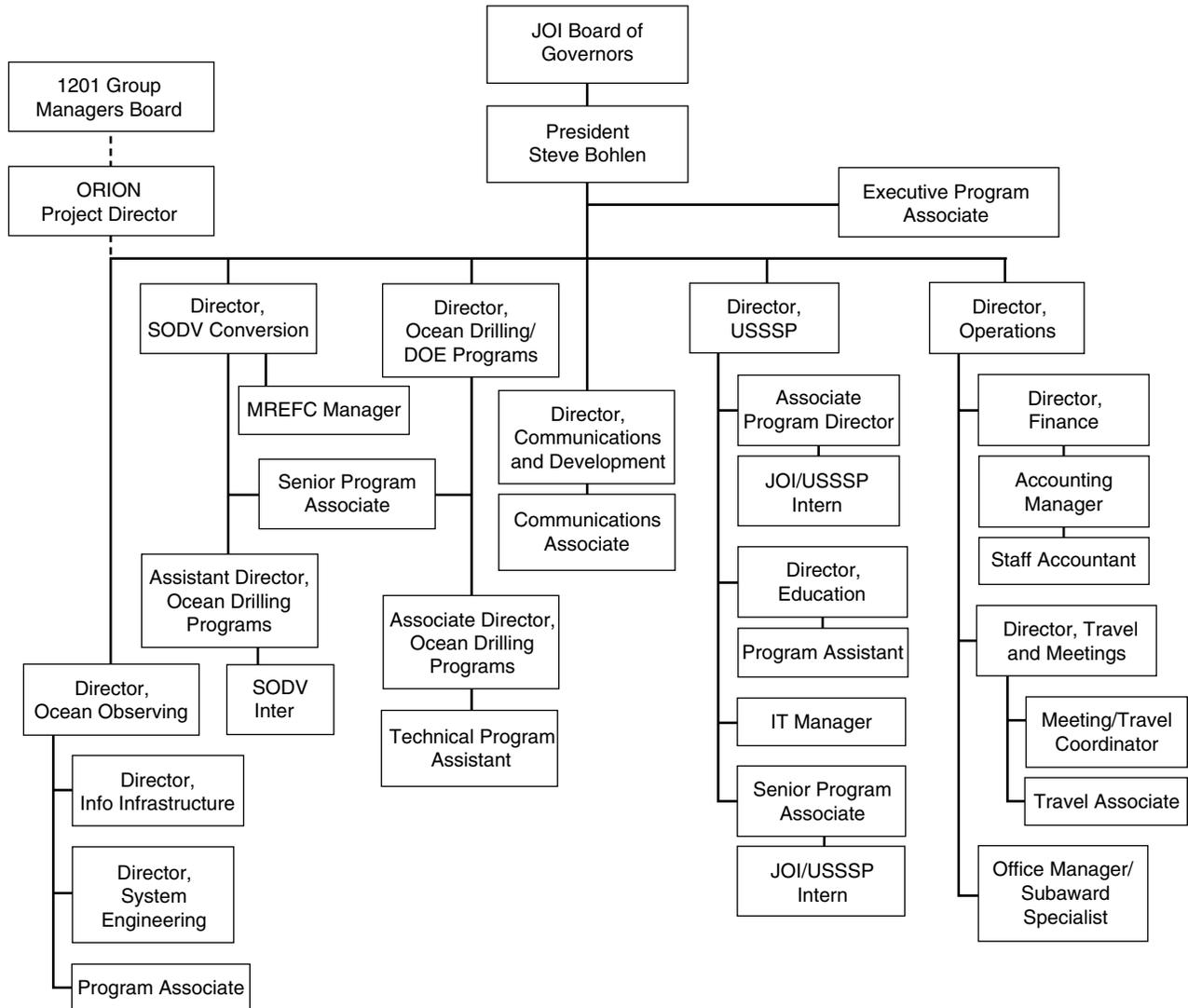
JOI will manage the U.S. riserless platform operations under the terms and conditions of the NSF IODP-USIO contract (OCE 0352500), and science services under the terms and conditions of a contract with IODP-MI, in accordance with this Program Plan and consistent with subsequent annual Program Plans until the IODP-USIO contract has been completed. JOI staff will be responsible for the overall management, planning, data dissemination, and reporting of the IODP-USIO to NSF and community stakeholders.

Specifically, JOI will

- Work with JOI Alliance subcontractors to conduct IODP-USIO and IODP programmatic activities.
- Select and work with other subcontractors, as required, to meet programmatic objectives.
- Develop an annual IODP-USIO Program Plan based on a mission forecast provided by NSF and incorporating input from the IODP central management office (IODP-MI). The Program Plan will:
  - Outline IODP and IODP-USIO programmatic goals and expectations.
  - Summarize IODP-USIO scheduled operational activities and other planning requirements.
  - Provide projected IODP-USIO budgets for platform operating costs (POCs) and science operating costs (SOCs), as well as total costs, based on staffing and organizational plans.
- Review programmatic accomplishments from the previous year's activities.
- Highlight recent scientific results and report on the distribution of samples, data, and Program publications overseen by the IODP-USIO.
- Present proposed IODP-USIO and IODP plans and other activities, as appropriate, to allow integration with the other IOs.
- Work with IODP-MI to maintain an IODP policy manual that contains a clear and up-to-date summary of the USIO policies and guidelines for management and operational activities.
- Work with IODP-MI and stakeholders to evaluate the IODP-USIO Program within IODP.

- Prepare and submit quarterly reports to NSF that summarize IODP-USIO financial, operational, and other activities.
- Conduct public affairs activities for the IODP-USIO and in support of IODP.
- Fulfill liaison responsibilities to the IODP SAS, the other IOs, and IODP-MI, as appropriate.
- Secure subcontracts for required services required by the Program.

### Joint Oceanographic Institutions



## Joint Oceanographic Institutions Positions and Percent Effort

Employee	Position	WBE Element	% Effort SOC	% Effort POC
Steve Bohlen	President	M&A	25%	25%
Amy Castner	Executive Program Associate	M&A	25%	25%
Stuart Williams	Director, SODV Conversion (1)	(1)	0%	0%
TBN	Manager, MREFC (1)	(1)	0%	0%
Kelly Kryc	Assistant Director, Ocean Drilling Programs (1)	(1), M&A	25%	25%
TBN	SODV Intern (1)	(1)	0%	0%
Frank Rack	Director, Ocean Drilling Programs	M&A	40%	40%
Margo Cortes	Senior Program Associate	M&A	25%	25%
TBN	Associate Director, Ocean Drilling Programs	M&A	25%	25%
TBN	Technical Program Assistant	M&A	25%	25%
Susan Boa	Director of Communications and Development	M&A	15%	15%
John Corsiglia	Communications Associate	M&A	25%	25%
Leslie Peart	Director of Education (2)	E&O	50%	0%
Matthew Niemitz	Program Assistant (2)	SOC=E&O; POC=M&A	40%	40%
Robert Wright	IT Manager (3)	G&A	0%	0%
Carol Kokinda	Director of Operations (3)	G&A	0%	0%
Eldon Hayman	Director of Finance (3)	G&A	0%	0%
Derrek Jones	Accounting Manager (3)	G&A	0%	0%
Morvika McIntyre	Staff Accountant (3)	G&A	0%	0%
Amy Page	Director of Travel and Meetings (3)	G&A	0%	0%
Nancy McGuirk	Meeting/Travel Coordinator (3)	G&A	0%	0%
Julie Farver	Travel Associate (3)	G&A	0%	0%
Severina Kluizinaar	Office Manager/Subaward Specialist (3)	G&A	0%	0%
<b>FTEs</b>			<b>3.20</b>	<b>2.70</b>

Notes: M&A = Management and Administration, E&O = Education and Outreach; G&A = General and Administrative costs. (1) These positions are also assigned to tasks under the SODV Project related to the USIO SIC contract with NSF; (2) These positions are involved in outreach activities paid for by SOC funds; (3) These positions are funded by General and Administrative (G&A) costs (indirect costs) and work on all JOI programs.

## FY06 JOI WBE BUDGET SUMMARY

Element/Expense Category	SOC	POC	Total
<b>Management and Administration</b>			
Salaries and Fringes	310,671	289,944	600,615
Travel	56,500	56,500	113,000
Supplies	15,450	15,450	30,900
Shipping	9,500	9,500	19,000
Communication	12,500	12,500	25,000
Contractual Services	7,500	7,500	15,000
Equipment	12,500	12,500	25,000
Other Direct Costs	15,000	15,000	30,000
Subtotal Direct Costs	439,621	418,894	858,515
Indirect Costs	151,094	145,290	296,384
<b>Total Management and Administration</b>	<b>590,715</b>	<b>564,184</b>	<b>1,154,899</b>
<b>Education and Outreach</b>			
Salaries and Fringes	75,708	0	75,708
Travel	45,000	0	45,000
Supplies	2,800	0	2,800
Shipping	5,650	0	5,650
Communication	3,500	0	3,500
Contractual Services	40,020	0	40,020
Equipment	0	0	0
Other Direct Costs	0	0	0
Subtotal Direct Costs	172,678	0	172,678
Indirect Costs	48,350	0	48,350
<b>Total Education and Outreach</b>	<b>221,028</b>	<b>0</b>	<b>221,028</b>
<b>Grand Total Direct Costs</b>	<b>612,299</b>	<b>418,894</b>	<b>1,031,193</b>
<b>Total Indirect Costs</b>	<b>199,444</b>	<b>145,290</b>	<b>344,734</b>
<b>Total JOI</b>	<b>811,743</b>	<b>564,184</b>	<b>1,375,927</b>

The JOI budget costs are divided between SOC and POC according to the FY06 guidance provided by the lead agencies and by IODP-MI, which was outlined in the introductory “USIO FY06 Program Plan for IODP” summary section of this Program Plan. The SOC portion of the budget is requested from IODP-MI, while the POC portion is requested from NSF for the period of 1 October 2005 through 30 September 2006.

**Salaries and Fringes**—Salaries and fringes, including an anticipated 3% cost-of-living allowance and estimated fringe benefits rate of 35%.

**SOC/POC**—Salaries and fringes for JOI staff supporting the IODP-USIO Program (see JOI organizational chart and JOI positions and percent effort table, which reflects the sum of SOC and POC effort by Program staff). All administrative support staff salaries and benefits are charged to the General and Administrative Costs (indirect) line item.

**Travel**—Transportation, per diem, and lodging.

**SOC**—Management and Administration (M&A) travel to port calls, IODP SAS panel and working group meetings, contractor meetings, scientific and technical meetings, meetings with IODP-MI and the other implementing organizations (IOs), and professional training of JOI staff. **Education and Outreach (E&O)** travel for participations in port calls, outreach to stakeholders

and Congress, press events, staffing of booths at national and international meetings, and development of museum exhibits and public lectures.

POC—M&A travel to port calls, IODP SAS panel and working group meetings, contractor meetings, scientific and technical meetings, meetings with IODP-MI and the other IOs, and professional training of JOI staff.

**Supplies**—General office supplies and expendables.

SOC—General office supplies and expendables for M&A activities at JOI and E&O activities for the JOI Alliance under this contract, including informational materials, posters, and brochures.

POC—General office supplies and expendables for M&A activities at JOI.

**Shipping**—Postage, express mail, courier services.

SOC—Postage and courier services for M&A activities of the JOI office and for E&O activities for the JOI Alliance under this contract, including shipping of booth materials to national and international meetings.

POC—Postage and courier services for M&A activities of the JOI office.

**Communication**—Telephone and fax charges and Internet services.

SOC—Telephone, fax, and Internet service charges for M&A activities of the JOI office and for E&O activities for the JOI Alliance under this contract.

POC—Telephone, fax, and Internet service charges for M&A activities of the JOI office.

**Contractual Services**—Consultant and contract services.

SOC/POC—M&A consultant services in support of network and video conferencing equipment in support of JOI management activities.

SOC—E&O contract services for platform enrichment activities, ship-to-shore outreach support, preparation of public relations materials and posters, evaluation of IODP materials.

**Equipment**—Procurement, upgrading, or fabrication of equipment.

SOC/POC—Equipment to support the M&A activities of the JOI, including computers, monitors and printers for new JOI staff and replacement of equipment during FY06.

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

SOC/POC—Relocation expenses, maintenance agreements and parts replacement or equipment repair, software, professional training, and books and other resources for M&A activities of the JOI office.

**General and Administrative Costs**—The NSF-approved provisional rate of 28% was used to calculate general and administrative (G&A) costs. G&A costs are charged on all direct costs, and on the first \$100,000 of all subcontracts JOI administers (e.g., Texas A&M Research Foundation [TAMRF] and LDEO subcontracts = \$56,000) under a particular contract.

SOC/POC—The additional G&A costs for the two subcontracts (LDEO and TAMRF) are split 50%/50% between the SOC G&A and the POC G&A (\$28,000 each = \$14,000 SOC + \$14,000 POC).

**INTEGRATED OCEAN DRILLING PROGRAM**  
**United States Implementing Organization**  
**Systems Integration Contractor**  
**Science Services**  
**Lamont-Doherty Earth Observatory**  
**of Columbia University**

**PROGRAM PLAN**  
**FY06 for IODP-IMI**

For Time Period  
1 October 2005 to 30 September 2006

**AMOUNT PROPOSED FY06: \$2,810,748 (SOC and POC)**

Respectfully Submitted to:  
Joint Oceanographic Institutions, Inc.



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David Goldberg  
Director, Science Services, IODP  
Lamont-Doherty Earth Observatory of  
Columbia University  
Palisades, NY 10964

19 July 2005



# INTRODUCTION

This Program Plan outlines the FY06 goals of the Integrated Ocean Drilling Program U.S. Implementing Organization (IODP-USIO) Science Services, Lamont-Doherty Earth Observatory (LDEO) of Columbia University. As a member of the Joint Oceanographic Institutions, Inc., (JOI) Alliance, the Lamont-Doherty Earth Observatory Borehole Research Group (LDEO-BRG) will provide log data acquisition aboard the *JOIDES Resolution* via a subcontract to Schlumberger Offshore Services and through staffing shipboard scientific and technical personnel. LDEO-BRG oversees subcontracts with Leicester University (LUBR), Laboratoire de Géophysique et Hydrodynamique en Forage (LGHF), University of Aachen, and Ocean Research Institute (ORI) to provide shipboard scientific personnel and special projects.

During FY06, we will continue to build on our success in the Ocean Drilling Program (ODP), continuing to provide shipboard and shore-based logging capabilities and advancing the scientific potential of logging for the IODP Science Plan. The major goals of FY06 and beyond are as follows.

- Maintain state-of-the-art logging systems and high-quality data acquisition in all IODP environments.
- Assist the scientific community with access to and use of log data.
- Provide facilities and software for enhanced core/log/seismic integration.
- Facilitate the implementation of IODP-USIO outreach and education activities.

Major components of this effort in FY06 will be participation in JOI Alliance teams for overall Program management, the continued support for and expansion of the GeoFrame/IESX and Splicer/Sagan data processing packages, enhancement of data access capabilities, and shipboard operations on the *JOIDES Resolution*.

## FY06 IODP-USIO SCIENCE SERVICES, LDEO, WBE BUDGET SUMMARY

Element	SOC	POC	Total
Management and Administration	277,719	76,758	354,477
Technical, Engineering, and Science Support	1,194,436	41,913	1,236,349
<b>Subtotal Technical, Engineering, and Science Support</b>	1,194,436	41,913	1,236,349
<b>Subtotal Engineering Development</b>	0	0	0
Core Curation	0	0	0
<b>Subtotal Core Curation</b>	0	0	0
<b>Subtotal DSDP/ODP Core Redistribution</b>	0	0	0
Data Management	157,584	0	157,584
Publications	0	0	0
Logging	659,652	402,686	1,062,338
Education and Outreach	0	0	0
<b>Total IODP-USIO Science Services, LDEO</b>	<b>2,289,391</b>	<b>521,357</b>	<b>2,810,748</b>

# FY06 IODP-USIO SCIENCE SERVICES, LDEO, WBE BUDGET DETAIL

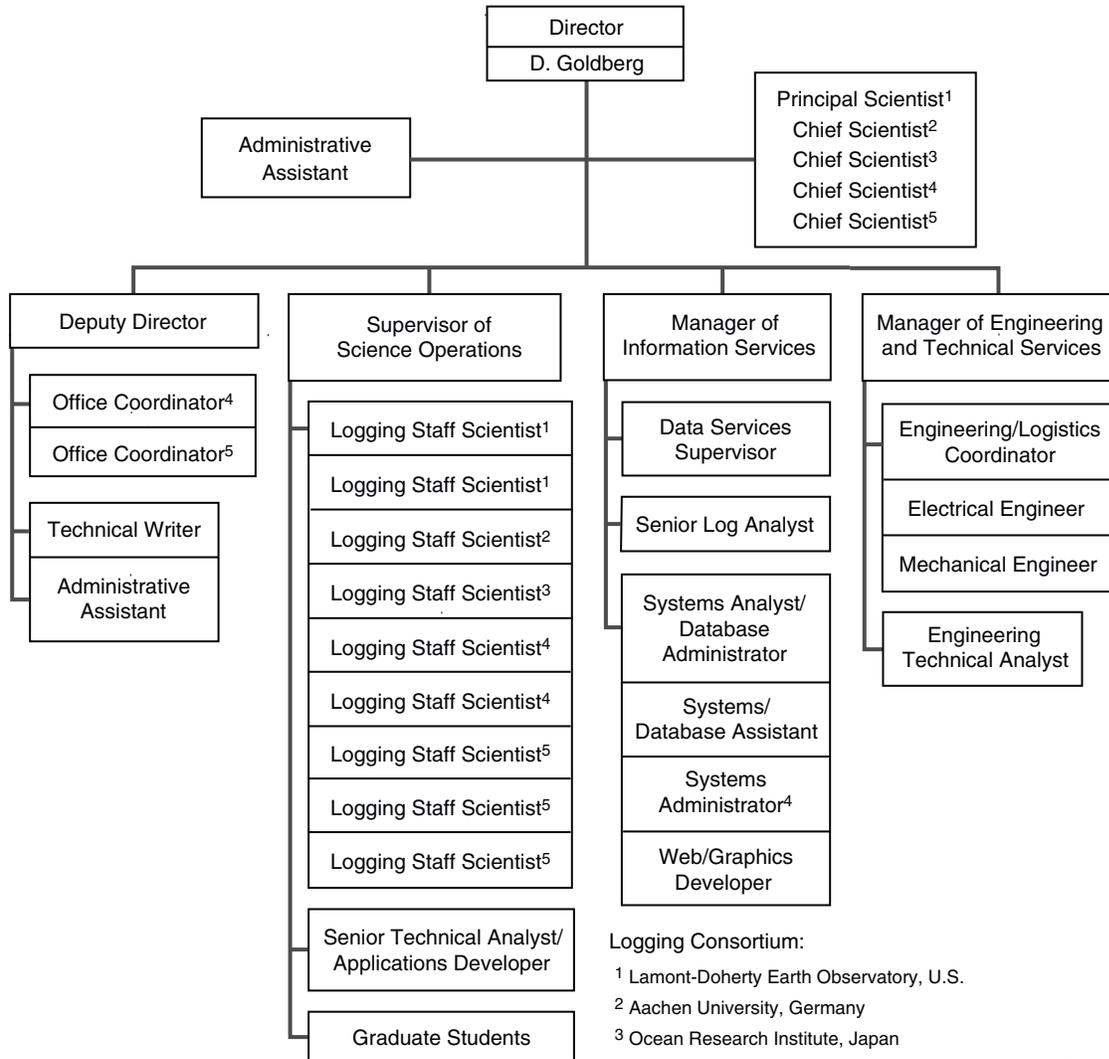
Element/Expense Category	SOC	POC	Total
<b>Management and Administration</b>			
Salaries and Fringes	165,928	41,482	207,410
Travel	9,469	4,734	14,203
Supplies	1,930	965	2,895
Shipping	908	454	1,362
Communication	979	489	1,468
Contractual Services	0	0	0
Equipment	2,735	2,735	5,470
Other Direct Costs	515	257	772
<b>Total Direct Costs</b>	<b>182,464</b>	<b>51,116</b>	<b>233,580</b>
<b>Modified Total Direct Costs</b>	<b>179,729</b>	<b>48,381</b>	<b>228,110</b>
Indirect Costs	95,255	25,642	120,897
<b>Total Management and Administration</b>	<b>277,719</b>	<b>76,758</b>	<b>354,477</b>
<b>Technical, Engineering, and Science Support</b>			
Salaries and Fringes	447,546	27,100	474,646
Travel	48,035	0	48,035
Supplies	26,360	0	26,360
Shipping	4,894	0	4,894
Communication	7,038	294	7,332
Contractual Services	297,443	0	297,443
Equipment	43,436	0	43,436
Other Direct Costs	34,618	0	34,618
Day Rate	0	0	0
Fuel and Lubricants	0	0	0
Per Diem	0	0	0
Port Calls	0	0	0
Insurance	0	0	0
Other	0	0	0
<b>Subtotal Technical, Engineering, and Science Support</b>	<b>909,370</b>	<b>27,394</b>	<b>936,764</b>
<b>Subtotal Engineering Development</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Direct Costs</b>	<b>909,370</b>	<b>27,394</b>	<b>936,764</b>
<b>Modified Total Direct Costs</b>	<b>537,861</b>	<b>27,394</b>	<b>565,255</b>
Indirect Costs	285,066	14,519	299,585
<b>Total Technical, Engineering, and Science Support</b>	<b>1,194,436</b>	<b>41,913</b>	<b>1,236,349</b>

Continued on next page.

# FY06 IODP-USIO SCIENCE SERVICES, LDEO, WBE BUDGET DETAIL (CONTINUED)

Element/Expense Category	SOC	POC	Total
<b>Data Management</b>			
Salaries and Fringes	97,514	0	97,514
Travel	3,000	0	3,000
Supplies	1,000	0	1,000
Shipping	500	0	500
Communication	500	0	500
Contractual Services	0	0	0
Equipment	0	0	0
Other Direct Costs	482	0	482
<b>Total Direct Costs</b>	<b>102,996</b>	<b>0</b>	<b>102,996</b>
<b>Modified Total Direct Costs</b>	<b>102,996</b>	<b>0</b>	<b>102,996</b>
Indirect Costs	54,588	0	54,588
<b>Total Data Management</b>	<b>157,584</b>	<b>0</b>	<b>157,584</b>
<b>Logging Services</b>			
Salaries and Fringes	0	0	0
Travel	13,089	0	13,089
Supplies	11,835	769	12,604
Shipping	9,319	0	9,319
Communication	1,031	128	1,159
Contractual Services	559,548	401,314	960,862
Equipment	7,932	0	7,932
Other Direct Costs	24,969	0	24,969
<b>Total Direct Costs</b>	<b>627,723</b>	<b>402,211</b>	<b>1,029,934</b>
<b>Modified Total Direct Costs</b>	<b>60,243</b>	<b>897</b>	<b>61,140</b>
Indirect Costs	31,929	475	32,404
<b>Total Logging Services</b>	<b>659,652</b>	<b>402,686</b>	<b>1,062,338</b>
<b>Grand Total Direct Costs</b>	<b>1,822,553</b>	<b>480,721</b>	<b>2,303,274</b>
<b>Indirect Costs</b>	<b>466,838</b>	<b>40,636</b>	<b>507,474</b>
<b>Total IODP-USIO Science Services, LDEO</b>	<b>2,289,391</b>	<b>521,357</b>	<b>2,810,748</b>

# IODP-USIO Science Services, LDEO



- Logging Consortium:
- <sup>1</sup> Lamont-Doherty Earth Observatory, U.S.
  - <sup>2</sup> Aachen University, Germany
  - <sup>3</sup> Ocean Research Institute, Japan
  - <sup>4</sup> Laboratoire de Geophysique et Hydrodynamique en Forage, France
  - <sup>5</sup> University of Leicester Borehole Research, U.K.

## IODP-USIO Science Services, LDEO, Positions and Percent Effort

Name	Position	WBE Element	% Effort SOC	% Effort POC
Dave Goldberg	Director	M&A	29%	7%
Marsha Meyer	Administrative Assistant	M&A	48%	12%
Alberto Malinverno	Principal Scientist	M&A	13%	3%
Tim Brewer	Chief Scientist	TE&SS	4%	0%
Philippe Pezard	Chief Scientist	TE&SS	4%	0%
Renate Pechnig	Chief Scientist	TE&SS	4%	0%
Yasuyuki Nakamura	Chief Scientist	TE&SS	4%	0%
Mary Reagan	Deputy Director	M&A	44%	11%
Janette Thompson	Office Coordinator	M&A	8%	0%
Joëlle Gastimbide	Office Coordinator	M&A	23%	0%
Carl Brenner	Technical Writer	M&A	21%	5%
TBN	Administrative Assistant	M&A	42%	10%
Gerardo Iturrino	Supervisor Science Operations	TE&SS	50%	0%
TBN	Logging Staff Scientist	TE&SS	50%	0%
Sean Higgins	Logging Staff Scientist	TE&SS	50%	0%
Heike Delius	Logging Staff Scientist	TE&SS	21%	0%
Marc Reichow	Logging Staff Scientist	TE&SS	21%	0%
TBN	Logging Staff Scientist	TE&SS	25%	0%
Florence Einaudi	Logging Staff Scientist	TE&SS	25%	0%
Akram Belghoul	Logging Staff Scientist	TE&SS	25%	0%
Margarete Linek	Logging Staff Scientist	TE&SS	25%	0%
Takeshi Tsuji	Logging Staff Scientist	TE&SS	25%	0%
Gilles Guerin	Senior Technical Analyst/Applications Developer	TE&SS	67%	0%
Ann Cook	Graduate Student	TE&SS	75%	0%
Zhiguo Cheng	Graduate Student	TE&SS	75%	0%
Dan Quoidbach	Manager of Information Services	TE&SS/DM	73%	0%
Cristina Broglia	Data Services Supervisor	DM	33%	0%
Trevor Williams	Senior Log Analyst	TE&SS	67%	0%
Ted Baker	Systems Analyst/Database Administrator	TE&SS	67%	27%
Jim Murray	Systems/Database Assistant	DM	67%	0%
Josiane Tack	Systems Administrator	TE&SS	17%	0%
Kazuko Nagao	Web/Graphics Developer	TE&SS	38%	0%
Greg Myers	Manager of Engineering and Technical Services	TE&SS	13%	0%
Walt Masterson	Engineering/Logistics Coordinator	TE&SS	16%	0%
Will Keogh	Electrical Engineer	TE&SS	17%	0%
TBN	Mechanical Engineer	TE&SS	17%	0%
Golam Sarker	Engineering Technical Analyst	TE&SS	15%	0%
	<b>FTEs</b>		12.14	0.76

Notes: M&A = Management and Administration, L = Logging, TE&SS = Technical, Engineering, and Science Support, DM = Data Management. FTE = full-time equivalent. Employee names reflect the individuals employed in each position at the date of the submission of this document.

## MAPPING OF DEPARTMENTS TO WORK BREAKDOWN ELEMENTS

**Management/Administration:** The responsibilities, tasks, deliverables, and costs for headquarters/administration map into this element (Director, Administrative Assistant, Deputy Director, and positions reporting to Deputy Director).

**Technical, Engineering, and Science Support:** The responsibilities, tasks, deliverables, and costs for the Science Operations Department and the Engineering and Technical Services Department map into this element, as do the networking, processing, and computing aspects of the Information Services Department.

**Data Management:** The log database responsibilities, tasks, deliverables, and costs for the Information Services Department map into this element.

**Logging:** This element provides for the delivery of subcontracted shipboard logging services and equipment (e.g., Schlumberger, insurance), travel to and from the ship for seagoing personnel, and other ship-related costs such as shipping and supplies. It does not map to a department.

# MANAGEMENT AND ADMINISTRATION

## RESPONSIBILITIES

The Management and Administration Work Breakdown Element (WBE) is supported by the Director, Administrative Assistant, Deputy Director, and positions reporting to the Deputy Director.

The Director is responsible for overseeing the management of all tasks to ensure that deliverables are met in accordance with National Science Foundation (NSF) and IODP Management International, Inc. (IODP-MI), requirements. The Director also serves as Chief Scientist; provides scientific and technical guidance and interacts with JOI Alliance teams, Science Advisory Structure (SAS) panels, and IODP-MI groups; participates in JOI Alliance strategic planning; maintains programmatic and fiscal oversight of IODP-USIO Science Services, LDEO, with overall responsibility for all Logging Consortium subcontractors; and heads the Logging Consortium for riserless activities.

Headquarters and Management personnel are responsible for tasks including Program management and reporting; coordination and budget control for LDEO projects; administration, personnel, procurement, and subcontract fiscal oversight; budget tracking services; and technical writing.

The following tasks support the Management and Administration WBE.

### Management

- Provide overall Program oversight. Effectively and efficiently manage all science operation deliverables and ensure that they are consistent with NSF and IODP-MI requirements.
- Provide sound fiscal and contractual management of the activities and deliverables for which LDEO-BRG is responsible.
- Ensure the use of project management techniques to effectively manage resources and provide Program accountability.
- Effectively and efficiently manage the subcontract with Schlumberger and international subcontracts to Logging Consortium institutions (University of Leicester, Laboratoire de Géophysique et Hydrodynamique en Forage, University of Aachen, and Ocean Research Institute).
- Prepare required reports (e.g., quarterly reports, Program Plans).
- Head the Logging Consortium for riserless activities and work with the members of the consortium to coordinate cross-platform logging activities and ensure the highest degree of compatibility among the platforms.

### Planning Activities

- Oversee execution of scheduled expeditions, including the planning, implementation, and review of each expedition.
- Liaise as needed with SAS panels (e.g., Science Planning and Policy Committee [SPPOC], Science Planning Committee [SPC]) and IODP-MI Task Force, as well as with other implementing organizations (IOs) and IODP-MI.
- Coordinate training opportunities for members of the IODP community. Work with the LDEO Science Operations to ensure adequate training of new Logging Staff Scientists.

## MANAGEMENT AND ADMINISTRATION BUDGET

Expense Category	SOC	POC	Total
Salaries and Fringes	165,928	41,482	207,410
Travel	9,469	4,734	14,203
Supplies	1,930	965	2,895
Shipping	908	454	1,362
Communication	979	489	1,468
Contractual Services	0	0	0
Equipment	2,735	2,735	5,470
Other Direct Costs	515	257	772
Total Direct Costs	182,464	51,116	233,580
Modified Total Direct Costs	179,729	48,381	228,110
Indirect Costs	95,255	25,642	120,897
<b>Total Management and Administration</b>	<b>277,719</b>	<b>76,758</b>	<b>354,477</b>

All Management and Administration costs are split evenly between platform operating costs (POCs) and science operations costs (SOCs) for the period of 1 October 2005 through 31 December 2005. After 1 January 2006, the remaining POC expenses will be budgeted as system integration contractor (SIC) costs. Funds for this WBE are budgeted as follows.

**Salaries and Fringes**—Personnel expenses including fringe benefits at 26.4% for five employees supporting Management and Administration.

**Travel**—Panel meetings, contractor meetings, scientific and technical meetings, and port call visits.

**Supplies**—General office supplies.

**Shipping**—Postage and express mail costs.

**Communication**—Telephone and fax costs.

**Contractual Services**—None budgeted.

**Equipment**—Equipment having an acquisition cost of \$2,000 or more.

**Other Direct Costs**—Costs for meeting support.

**Indirect Costs**— Indirect costs at 53% are assessed on all charges except permanent equipment, tuition remission, and downhole tool insurance. In addition, subcontracts are charged indirect costs on the first \$25,000 of each contract. The indirect cost for all of the existing subcontracts was included in the FY04 Program Plan, so these subcontracts are not subject to indirect cost during FY06. Modified total direct costs (MTDC) are the total direct costs minus these exceptions.

# TECHNICAL, ENGINEERING, AND SCIENCE SUPPORT

## RESPONSIBILITIES

The Technical, Engineering, and Science Support WBE is supported by the Science Operations Department, the Engineering and Technical Services Department, and the network, processing, and computing aspects of the Information Services Department.

Technical and Engineering responsibilities include oversight of major technical subcontracts for logging services providers; third-party and specialty tool support, logistics, and riserless platform engineering and development; oversight of shipboard and shore-based logging laboratories and equipment; provision and coordination of engineering and logistics issues; special tool developments; and project management for a variety of engineering and technical activities. The Logging Services engineering team works to improve logging and drilling equipment as needed or requested by the scientific community, while minimizing costs through efficient engineering design and manufacturing techniques.

Science Services responsibilities include providing scientific, operational, and technical support for IODP-USIO riserless vessel downhole measurement activities, including planning, overseeing, and reviewing day-to-day logging science operations; offering scientific advice during early expedition planning stages; providing shipboard scientific, operational, and technical support through the Logging Staff Scientist; and developing integrated data packages for U.S. platform expeditions. Major subcontracts with University of Leicester, Laboratoire de Géophysique et Hydrodynamique en Forage, University of Aachen, and Ocean Research Institute provide access to world-class logging scientists for shipboard participation and shore-based projects. The balance of scientific personnel support (including sea pay and fringe) is distributed among the partner institutions for shipboard participation and other logging-related activities.

Information Services responsibilities include the provision of computer and network systems support services; logging software development projects, data processing, and data analysis; network support and access; and collaboration with the JOI Alliance to plan and coordinate ship-to-shore communications to serve the needs of the logging program.

The following tasks support the Technical, Engineering, and Science Support WBE.

### **Provision of Logging Staff Scientists for FY06 IODP-USIO**

- Prepare operational plans with time and cost estimates that achieve the scientific objectives of each expedition, ensure that logging equipment is available for shipboard operations, and supervise safe and efficient logging operations aboard the *JOIDES Resolution*.
- Coordinate port call activities among IODP-USIO Science Services, LDEO and Texas A&M University (TAMU), logistics personnel, work with science party members wishing to conduct special downhole measurements as needed, and provide assistance for postexpedition data processing following each expedition.
- Present logging results and participate in postexpedition meetings.
- Ensure that the Logging Staff Scientists are kept up to date on the latest downhole tools, operational procedures, and interpretation techniques.

## **Planning Activities**

- Review the logging tools required to complete the scientific objectives of the highly ranked riserless drilling proposals and for scheduled FY06 expeditions.
- Develop logging operational plans to meet these needs and ensure safe shipboard operations.
- Liaise with the Co-Chief Scientists and other expedition personnel.
- Provide liaisons for IODP SAS (e.g., Science Steering and Evaluation Panels [SSEPs], Scientific Technology Panel [STP]) as appropriate.

## **Log Analysis Centers**

- Provide the capability of integrating core, log, and seismic data at the five shore-based facilities through the use of the GeoFrame/IESX and Splicer/Sagan data processing and interpretation packages.
- Provide access to the centers for data interpretation and integration pre- and postexpedition through the Logging Consortium.
- Provide a place for IODP scientists to receive training on log usage and have access to state-of-the-art software for log processing, analysis, and interpretation.
- Provide GeoFrame/IESX and Splicer/Sagan software and scientific personnel with log analysis expertise onsite to help achieve the scientific objectives of IODP expeditions and postexpedition science.
- Provide detailed training for the shipboard scientific party on the technical aspects of data acquisition and processing.

## **Core-Log-Seismic Data Integration**

- Conduct expedition-related data integration functions, accessing the services and data holdings of the IODP Data Bank to support JOI Alliance drilling operations and science.
- Use GeoFrame/IESX projects for log-seismic integration during expeditions in collaboration with shipboard logging scientists. Postexpedition data interpretation may be conducted at the international Log Analysis Centers with on-site expertise.
- Through IESX and Core-Log Integration Platform (CLIP) Splicer/Sagan software packages, provide scientists with a means of integrating core, log, and seismic data.
- Maintain CLIP Splicer/Sagan software and provide training support for shipboard scientists, when necessary.

## **Third-Party Tool Support**

- Work with third-party developers for expedition-specific tool deployments.
- Ensure that the developers are aware of, and meet, all IODP reporting and technical third-party tool requirements.

## **Documentation**

- Create and/or refine documentation with each new development.
- Archive engineering files in both hard copy and digital file formats.
- Maintain records on tool reliability and operational efficiency for use in the annual Government Performance and Results Act (GPRA) report and operational assessments of IODP-USIO logging activities.

## **Technical Support of Vessel and Shore-based Operations**

- Provide shipboard technical support, including expedition planning, execution, and postexpedition assessment.
- Maintain shore-based test and measurement equipment used in the support of the shipboard operations.
- Ensure safe laboratory and workspace operations at shipboard and shore-based locations.
- Work with proponents wishing to conduct downhole experiments to ensure that appropriate space, access to equipment, and supplies are available.
- Work with third-party developers to ensure that their tools meet IODP standards for design and operation and third-party tool guidelines.
- Provide liaisons to IODP advisory panels as appropriate.

## **Engineering and Technology Enhancements**

- Ensure that the combined engineering resources of the JOI Alliance will be utilized to create development priorities, integrated development teams, and regular communications with engineering development teams at other IOs.
- Create new measurement systems and/or technology as appropriate, within the guidelines of IODP panels, JOI Alliance priorities, and logging services needs in support of shipboard operations.
- Refine existing measurement systems as appropriate as appropriate with new technology and capabilities.

## **Data Processing**

- Use Schlumberger's commercial GeoFrame/IESX software package, which is specifically dedicated for log processing, display, interpretation, and data management, at four shore-based log analysis centers.
- Through the use of the shipboard satellite system, provide the shipboard scientific party with a comprehensive, fully processed, and quality-controlled data set that can immediately be used for comparison and integration with other data collected during each expedition.

## **Computer Systems and Network Support**

- Support desktop workstations, servers, and network infrastructure; e-mail support services; and administrative services.
- Provide UNIX systems management services.
- Provide software purchasing and version control services.
- Work with JOI Alliance networking staff members to ensure that shipboard computer and ship-to-shore communication systems are fully supported.
- Work with JOI Alliance teams to support and deliver new information technology systems for use by IODP scientists, including potential third-party developments and visualization systems.
- Maintain logging-related material on the IODP-USIO Web site.

## TECHNICAL, ENGINEERING, AND SCIENCE SUPPORT BUDGET

Expense Category	SOC	POC	Total
Salaries and Fringes	447,546	27,100	474,646
Travel	48,035	0	48,035
Supplies	26,360	0	26,360
Shipping	4,894	0	4,894
Communication	7,038	294	7,332
Contractual Services	297,443	0	297,443
Equipment	43,436	0	43,436
Other Direct Costs	34,618	0	34,618
Day Rate	0	0	0
Fuel and Lubricants	0	0	0
Per Diem	0	0	0
Port Calls	0	0	0
Insurance	0	0	0
Other	34,618	0	34,618
<b>Subtotal Technical, Engineering, and Science Support</b>	<b>909,370</b>	<b>0</b>	<b>936,764</b>
<b>Subtotal Engineering Development</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total Direct Costs	909,370	27,394	936,764
Modified Total Direct Costs	537,861	27,394	565,255
Indirect Costs	285,066	14,519	299,585
<b>Technical, Engineering, and Science Support Total</b>	<b>1,194,436</b>	<b>41,913</b>	<b>1,236,349</b>

The Technical, Engineering, and Science Support budget includes costs associated with shipboard staffing, cruise planning, and postcruise activities, including costs incurred through international subcontracts to Logging Consortium institutions and costs for shore-based technical and engineering activities. Funds for this WBE are budgeted as follows:

**Salaries and Fringes**—Personnel expenses including fringe benefits at 26.4% for thirteen employees and two graduate students supporting Technical, Engineering, and Science Support. No fringe is applied to graduate student salaries. Columbia University policy has been followed in accounting for sea pay (\$30/day first 35 days; \$50/day after 35 days) for all seagoing personnel.

**Travel**—Travel in support of shore-based activities (e.g., travel in connection with professional meetings, pre-/postcruise meetings, cruise project management, SAS panel meetings, etc.), port call travel of engineers in support of logging operations, and subcontractor meetings.

**Supplies**—General office and laboratory supplies.

**Shipping**—Freight, postage and express mail costs.

**Communication**—Telephone and fax costs including JOI Alliance conference calls, calls for expedition planning details, communications with SAS panel members, and interaction with subcontractors.

**Contractual Services**—Subcontracts to the members of the Logging Consortium members (University of Montpellier, France; University of Leicester, United Kingdom; University of Aachen, Germany; and Ocean Research Institute, Japan) that provide shipboard participation of logging scientists, liaisons to selected panels as needed, and scientific support for Program planning and logging-related projects. A total of 2.3 FTEs are supported on these subcontracts in FY06. Participation of all Logging Consortium personnel is supported at the 25% level or less in FY06.

**Equipment**—Equipment having an acquisition cost of \$2,000 or more. Includes \$7,964 for an Apple Xserve RAID with seven 400 GB hardisks and cache battery backup modules.

**Other Direct Costs**—Tuition remission for two graduate students (\$30,630), repair and maintenance expenses for office equipment based on existing maintenance agreements and previous expenses for general repair and maintenance. Logging equipment maintenance includes upgrade, modification, and repair of tools and data acquisition systems.

**Indirect Costs**— Indirect costs at 53% are assessed on all charges except permanent equipment, tuition remission, and downhole tool insurance. In addition, subcontracts are charged indirect costs on the first \$25,000 of each contract. The indirect cost for all of the existing subcontracts was included in the FY04 Program Plan, so these subcontracts are not subject to indirect cost during FY06. MTDC are the total direct costs minus these exceptions.

# DATA MANAGEMENT

## RESPONSIBILITIES

The Data Management WBE is supported by the Information Services Department. Data Management responsibilities include the quality control, development, and maintenance of the log database.

The following tasks support the Data Management WBE.

### Data Processing, Management, and Distribution

- Work with the JOI Alliance and representatives from other IOs to standardize logging protocols (e.g., file-naming conventions) to the extent feasible.
- Work with the Logging Staff Scientists and Schlumberger engineers to ensure that proper quality control measures are taken during data acquisition, transfer, and storage. Also ensure that proper procedures are followed during data processing.
- Maintain the Deep Sea Drilling Project (DSDP)/ODP/IODP log database, archiving and distributing the collected data for the scientific community. Working closely with the JOI Alliance and other IO and IODP-MI groups, ensure that the processed data is easily accessible online in compatible formats.

## DATA MANAGEMENT BUDGET

Expense Category	SOC	POC	Total
Salaries and Fringes	97,514	0	97,514
Travel	3,000	0	3,000
Supplies	1,000	0	1,000
Shipping	500	0	500
Communication	500	0	500
Contractual Services	0	0	0
Equipment	0	0	0
Other Direct Costs	482	0	482
Total Direct Costs	102,996	0	102,996
Modified Total Direct Costs	102,996	0	102,996
Indirect Costs	54,588	0	54,588
<b>Data Management Total</b>	<b>157,584</b>	<b>0</b>	<b>157,584</b>

The Data Management budget includes costs for the quality control, development, and maintenance of the log database.

Funds for this WBE are budgeted as follows:

**Salaries and Fringes**—Personnel expenses including fringe benefits at 26.4% for two employees supporting Data Management.

**Travel**—Panel meetings, contractor meetings, scientific meetings, and port call visits.

**Supplies**—General office supplies and computer software for all IODP-USIO Science Services, LDEO, personnel.

**Shipping**—Postage and express mail service costs.

**Communication**—Telephone and fax costs.

**Contractual Services**—None budgeted.

**Equipment**—None budgeted.

**Other Direct Costs**—Reference/training materials.

**Indirect Costs**—Indirect costs at 53% are assessed on all charges except permanent equipment, tuition remission, and downhole tool insurance. In addition, subcontracts are charged indirect costs on the first \$25,000 of each contract. The indirect cost for all of the existing subcontracts was included in the FY04 Program Plan, so these subcontracts are not subject to indirect cost during FY06. MTDC are the total direct costs minus these exceptions.

# LOGGING

## RESPONSIBILITIES

The Logging WBE is supported by all departments within IODP-USIO Science Services, LDEO. Logging responsibilities include providing for the delivery of all shipboard logging services and equipment. The following tasks support the Logging WBE.

### Provision of Logging Services

- Provide for the delivery of logging services aboard the drilling vessel through the subcontract with Schlumberger.
- Procure all necessary downhole tool insurance for standard logging operations, including coverage for specialty tools.
- Ensure that the shipboard logging workspaces, logging tools, and equipment are operational and stocked with adequate supplies for both routine and third-party operations.
- Provide expedition logistical support, including procurement of equipment and supplies.
- Maintain responsibility for inventory control and shipping and receiving.

## LOGGING BUDGET

Expense Category	SOC	POC	Total
Salaries and Fringes	0	0	0
Travel	13,089	0	13,089
Supplies	11,835	769	12,604
Shipping	9,319	0	9,319
Communication	1,031	128	1,159
Contractual Services	559,548	401,314	960,862
Equipment	7,932	0	7,932
Other Direct Costs	24,969	0	24,969
Total Direct Costs	627,723	402,211	1,029,934
Modified Total Direct Costs	60,243	897	61,140
Indirect Costs	31,929	475	32,404
<b>Total Logging Services</b>	<b>659,652</b>	<b>402,686</b>	<b>1,062,338</b>

The Logging budget includes costs for the shipboard downhole measurements laboratory and associated equipment and supplies, travel for sailing scientists, travel associated with equipment maintenance, communications and shipping costs, services associated with tool maintenance, downhole tool insurance, and the subcontract to Schlumberger for provision of standard and specialty logging tools and engineering support. The funds for this WBE are budgeted as follows.

**Salaries and Fringes**—None budgeted.

**Travel**—Travel to the platform for logging scientists, engineers, and other port call personnel in FY06.

**Supplies**—General office and shipboard laboratory supplies.

**Shipping**—Freight, postage, and express mail service costs.

**Communication**—Telephone and fax costs.

**quipment**—Equipment having an acquisition cost of \$2,000 or more.

**Contractual Services**—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 backoff and severing services, as well as 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 subcontract line and is based on anticipated rates of 17.5% of total equipment value. Insurance on equipment needed for backoff and severing services is included in the POC budget.

**Other Direct Costs**—Repair and maintenance expenses for office equipment based on existing maintenance agreements and previous expenses for general repair and maintenance. Logging equipment maintenance includes upgrade, modification, and repair of tools and data acquisition systems.

**Indirect Costs**— Indirect costs at 53% are assessed on all charges except permanent equipment, tuition remission, and downhole tool insurance. In addition, subcontracts are charged indirect costs on the first \$25,000 of each contract. The indirect cost for all of the existing subcontracts was included in the FY04 Program Plan, so these subcontracts are not subject to indirect cost during FY06. MTDC are the total direct costs minus these exceptions.



**INTEGRATED OCEAN DRILLING PROGRAM  
United States Implementing Organization  
Systems Integration Contractor**

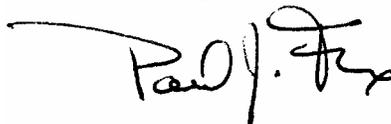
**Science Services,  
Texas A&M University**

**PROGRAM PLAN  
FY06 for IODP-MI**

For Time Period  
1 October 2005 to 30 September 2006

**AMOUNT PROPOSED FY06: \$16,561,977 (SOC and POC)**

Respectfully Submitted to:  
Joint Oceanographic Institutions, Inc.



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Paul J. Fox  
Director, Science Services, IODP  
Texas A&M University  
College Station, TX 77845

19 July 2005



# INTRODUCTION

In the Integrated Ocean Drilling Program (IODP), the JOI Alliance serves as the U.S. Implementing Organization (USIO) for the riserless scientific drilling vessel. In support of the IODP-USIO, Texas A&M University (TAMU), working in partnership with the Texas A&M Research Foundation (TAMRF), is responsible for providing the science services that are closely linked with the operation of a riserless drilling vessel. The document that follows identifies the tasks and services that IODP-USIO Science Services, TAMU/TAMRF, provides, projects a cost for these deliverables, and outlines our goals for FY06 in support of IODP. The services that we are responsible for are directly related to the scientific and engineering activities necessary to support science expeditions and the management of expedition-related shore-based functions (data management, core curation, and publications). Specifically, these service deliverables will include the following:

- Support of science operations (i.e., technical staffing of shipboard laboratories, staff scientists, engineering operations superintendents).
- Implementation of sound procedures in drilling and laboratory operations that minimize environmental impact, and establishment of best practices for the delivery of scientific results.
- Materials and logistical support of expedition implementation.
- Support of the maintenance and enhancement of analytical equipment and engineering tools necessary to achieve the scientific goals of riserless drilling.
- Support of information technology.
- Management of the archival data produced by the riserless vessel.
- Web administrative support.
- Curation of cores collected during the Deep Sea Drilling Project (DSDP), Ocean Drilling Program (ODP), and IODP.
- Production of required reports.
- Publication of the scientific and technical results produced as a result of riserless drilling.
- Support of IODP-USIO outreach and education activities.
- Support a collaborative working relationship with IODP Management International, Inc. (IODP-MI), the Japanese and European implementing organizations (IOs), and the IODP science advisory panels.

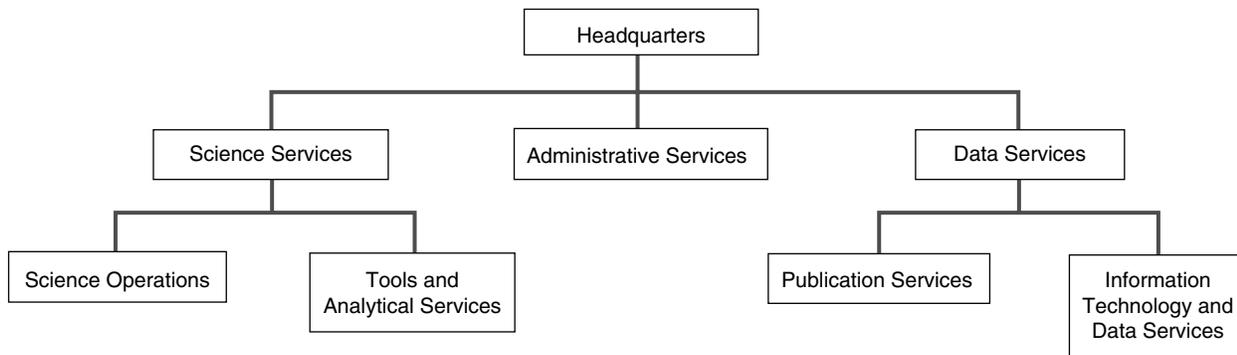
The administrative services required to support the science operations conducted by IODP-USIO Science Services, TAMU, will be managed by TAMRF and include contractual, fiscal, property/procurement, human resources, and travel assistance support.

## DEPARTMENTAL ORGANIZATIONAL STRUCTURE

The scientific deliverables for which IODP-USIO Science Services, TAMU/TAMRF, are responsible are organized into three distinct functional divisions: Science Services, which supports and implements the science activities at sea and the deployment, maintenance, and enhancement of engineering tools and analytical equipment that support at sea science operations; Data Services, which supports data acquisition, management of data collections and core curation, Web administration support, reports, scientific publications, and platform-related outreach; and Administrative Services, which provides services in contracts, purchasing, fiscal, travel, conference

support, personnel guidance, and risk management. To ensure integration of tasks and responsibilities, the Science Services and Data Services divisions each include two departments: the Science Services division includes the Science Operations and the Tools and Analytical Services Departments; the Data Services division includes the Information Technology and Data Services and the Publication Services Departments. To ensure programmatic integration, Deputy Directors oversee and manage the Science Services and Data Services divisions. The Deputy Directors report to the Director of Science Services. The Vice President, TAMRF, who serves as the Manager of Administrative Services, also reports to the Director of Science Services for technical direction and guidance (see organizational chart for a definition of how the IODP-USIO Science Services, TAMU/TAMRF, staff are organized into departmental entities; see department positions and percent effort tables for a listing of all staff, the departments to which they are assigned, their estimated percentage of effort as partitioned between SOC and POC, and identification of new positions in FY06).

### IODP-USIO Science Services, TAMU

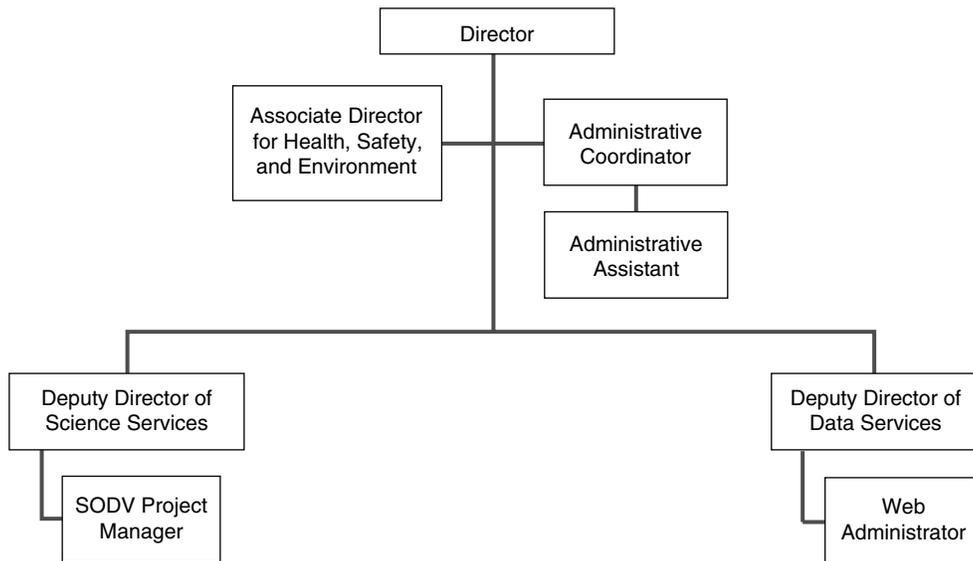


## Headquarters Department

The IODP-USIO Science Services, TAMU, Headquarters Department oversees the management of all science operations and data management tasks to ensure that deliverables are met in accordance with National Science Foundation (NSF) requirements and direction provided by IODP-MI; provides technical guidance and oversight of the vessel subcontractor(s) consistent with guidance provided by NSF; sets and administers the Health, Safety, and Environment (HSE) policies; oversees shipboard operations; takes responsibility for geological hazard reviews international permitting; and oversees strategic planning; provides fiscal oversight and manages scientific and technical issues; oversees all activities associated with the demobilization of the *JOIDES Resolution* at the end of IODP-USIO Phase 1 operations; represents IODP-USIO Science Services, TAMU, on JOI Alliance teams working with other IOs, IODP-MI offices, and Science Advisory Structure (SAS) panels; provides Web administration support for the science operator; and contributes to the fulfillment of the platform-related outreach goals of IODP.

To fulfill its responsibilities and to optimize programmatic efficiency, the Headquarters Department is staffed by a Director, two Deputy Directors, an HSE Associate Director, a Web Administrator, an Administrative Coordinator, and an Administrative Assistant (see organizational chart and table of positions and percent effort below).

### IODP-USIO Science Services, TAMU Headquarters Department



## Headquarters Department Positions and Percent Effort

Employee	Position	WBE Element	% Effort SOC	% Effort POC
Jeff Fox	Director	M&A	34%	6%
Doug Johnson	Associate Director for Health, Safety, and Environment	M&A	60%	10%
Agatha Moy	Administrative Coordinator	M&A	68%	12%
Kristin Hillis	Administrative Assistant	M&A	68%	12%
Jack Baldauf	Deputy Director of Science Services	M&A	16%	9%
Frank Williford	SODV Project Manager	M&A	0%	0%
Ann Klaus	Deputy Director of Data Services	M&A	85%	0%
Katerina Petronotis	Web Administrator	M&A	56%	19%
	<b>FTEs</b>		<b>2.93</b>	<b>0.52</b>

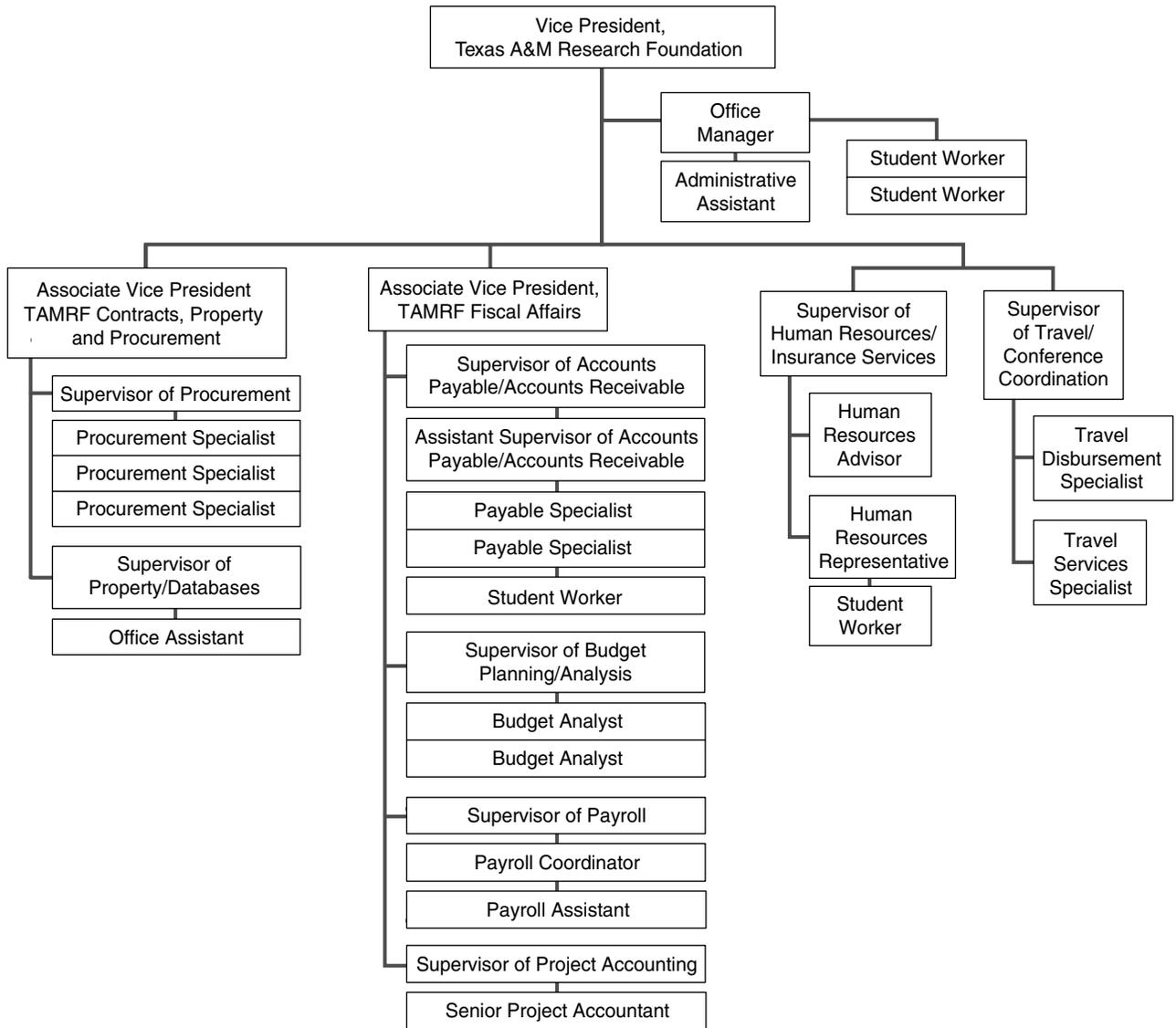
Notes: M&A = Management and Administration. FTE = full-time equivalent. Employee names reflect the individuals employed in each position at the date of the submission of this document.

## **Administrative Services Department**

The TAMRF Administrative Services Department is responsible for oversight and administration of all business affairs of IODP-USIO Science Services, TAMU. Through mutual agreement, TAMU and TAMRF have waived indirect cost of all activities and deliverables associated with the IODP-USIO, Science Services effort. In lieu of indirect cost recovery, TAMU/TAMRF direct charges costs associated with TAMRF employees who are assigned solely to the project. In addition, TAMRF, located at the TAMRF corporate office, has agreed to administer the business affairs for services required on an as needed basis that cannot be addressed by staff solely assigned to the project of IODP-USIO Science Services, TAMU, for a small corporate administrative fee. The corporate administrative fee reimburses TAMRF for administrative activities (i.e., vendor check preparation, verification, and distribution; postage; management activities; document scanning; storage; audit [local and external] liaison and preparation, legal advice, university coordination activities, etc.) in support of IODP. This arrangement, described above, results in the vast majority (95%) of funds provided being applied to science operations activities.

The principal goal for Administrative Services Department, from which all department and section goals flow, is to provide efficient business and compliance services to IODP-USIO Science Services, TAMU, to permit the unencumbered accomplishment of the Program's objective—delivery of science within the framework of the community's requirements. To fulfill its responsibilities, the department is divided into four sections: Contracts, Property, and Procurement; Fiscal Affairs; Human Resources and Insurance Services; and Travel/Conference Coordination (see organizational chart and table of positions and percent effort below).

**IODP-USIO Science Services, TAMU/TAMRF  
Administrative Services Department**



## Administrative Services Department Positions and Percent Effort

Employee	Position	WBE Element	% Effort SOC	% Effort POC
Rick McPherson	Vice President, TAMRF	M&A	30%	10%
Linda Norton	Office Manager	M&A	40%	10%
Mariel Atkins	Administrative Assistant	M&A	80%	10%
Megan Casey	Student Worker	M&A	45%	5%
TBN	Student Worker	M&A	25%	25%
Lynn Schulze	Associate Vice President, TAMRF Contracts, Property, and Procurement	M&A	35%	0%
Michelle Strickland	Supervisor of Procurement	M&A	40%	0%
Kim Lee	Procurement Specialist	M&A	50%	0%
Randy Watkins	Procurement Specialist	M&A	45%	5%
TBN	Procurement Specialist	M&A	50%	0%
Mary Pat Thraen	Supervisor of Property/Databases	M&A	35%	35%
Teresa Salamone	Office Assistant	M&A	60%	0%
Bill Lancaster	Associate Vice President, TAMRF Fiscal Affairs	M&A	30%	10%
Betty Skopik	Supervisor of Accounts Payable/Accounts Receivable	M&A	30%	20%
Ivonne Kindt	Assistant Supervisor of Accounts Payable/Accounts Receivable	M&A	25%	45%
Lanelle Boyd	Payables Specialist	M&A	45%	15%
TBN	Payables Specialist	M&A	45%	15%
Elizabeth Tosh	Student Worker	M&A	35%	5%
Valeria Day	Supervisor of Budget Planning/Analysis	M&A	35%	15%
Clydie Hughes	Budget Analyst	M&A	40%	10%
Sharon Sanders	Budget Analyst	M&A	40%	10%
Carolyn Engledow	Supervisor of Payroll	M&A	40%	10%
Kay Huff	Payroll Coordinator	M&A	50%	10%
TBN	Payroll Assistant	M&A	60%	10%
Angela Brown	Supervisor of Project Accounting	M&A	0%	0%
TBN	Senior Project Accountant	M&A	0%	0%
Kim Johnson	Supervisor of Human Resources/Insurance Services	M&A	60%	20%
Ollie Berka	Human Resources Advisor	M&A	60%	25%
Cynthia Escamilla	Human Resources Representative	M&A	90%	5%
Cristy Kasmiroski	Student Worker	M&A	45%	5%
Kathy Bass	Supervisor of Travel/Conference Coordination	M&A	45%	15%
Sande Rogers	Travel Disbursement Specialist	M&A	45%	15%
Denise DeShetler	Travel Services Specialist	M&A	35%	10%
	<b>FTEs</b>		<b>13.90</b>	<b>3.70</b>

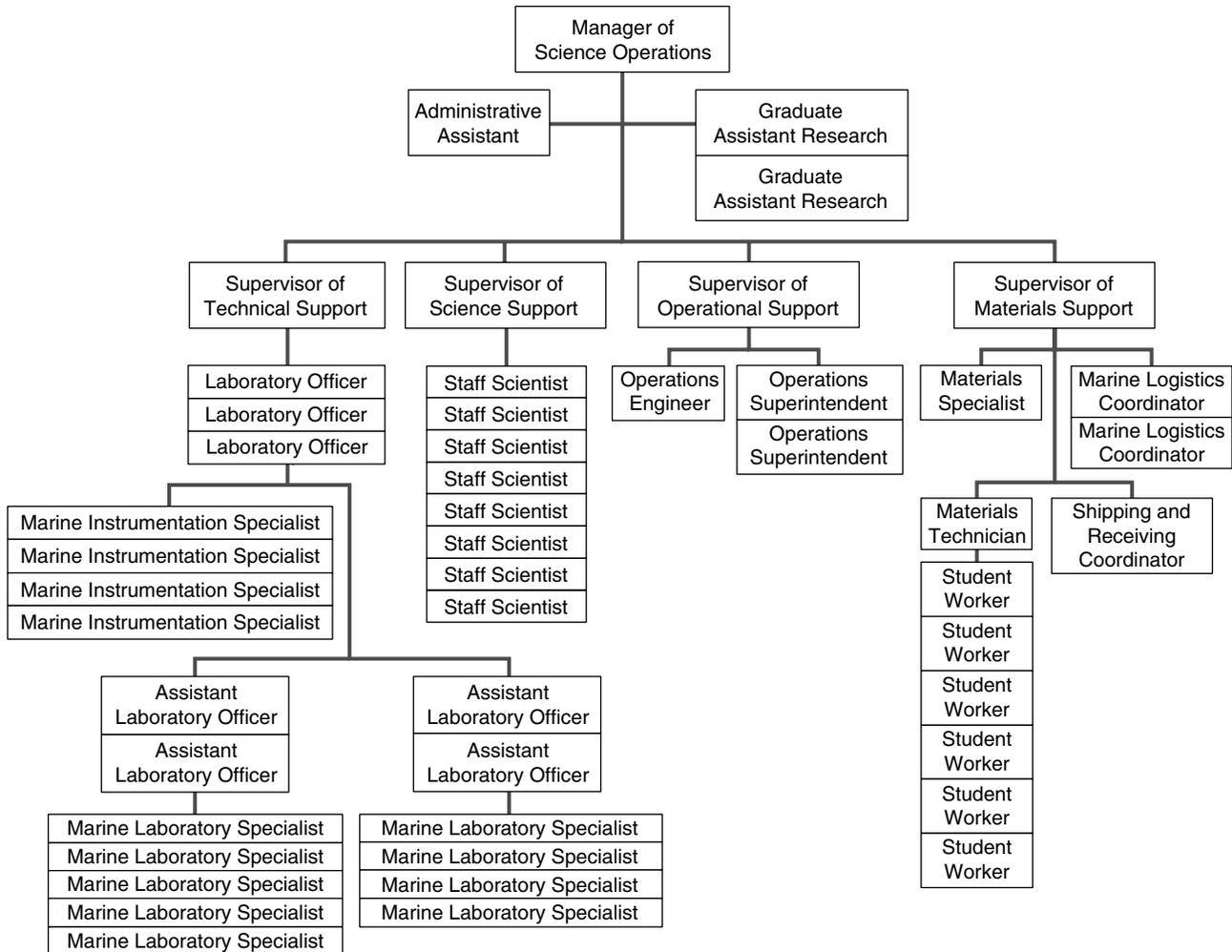
Notes: All personnel employed by Texas A&M Research Foundation. M&A = Management and Administration. FTE = full-time equivalent. Employee names reflect the individuals employed in each position at the date of the submission of this document.

## Science Operations Department

The Science Operations Department is responsible for scientific, technical, and operational support of all IODP riserless platform activities, including operations planning, estimating time and costs for each expedition; overseeing drilling, coring, and completion operations to ensure that the scientific goals are achieved; operating the shipboard laboratories; and supporting the shipboard scientific party.

To fulfill its responsibilities, the department is divided into four sections: Technical Support, Science Support, Operational Support, and Materials Support (see organizational chart and table of positions and percent effort below).

### IODP-USIO Science Services, TAMU Science Operations Department



## Science Operations Department Positions and Percent Effort

<b>Employee</b>	<b>Position</b>	<b>WBE Element</b>	<b>% Effort SOC</b>	<b>% Effort POC</b>
Tom Davies	Manager of Science Operations	TE&SS	12.5%	12.5%
Janice Muston	Administrative Assistant	TE&SS	12.5%	12.5%
Jaime Sanchez	Graduate Assistant Research	TE&SS	6%	6%
TBN	Graduate Assistant Research	TE&SS	6%	6%
Brad Julson	Supervisor of Technical Support	TE&SS	20%	6%
Roy Davis	Laboratory Officer	TE&SS	13%	13%
Burney Hamlin	Laboratory Officer	TE&SS	13%	13%
Bill Mills	Laboratory Officer	TE&SS	0%	0%
Randy Gjesvold	Marine Instrumentation Specialist	TE&SS	20%	6%
Jurie Kotze	Marine Instrumentation Specialist	TE&SS	20%	6%
Mike Meiring	Marine Instrumentation Specialist	TE&SS	20%	6%
Pieter Pretorius	Marine Instrumentation Specialist	TE&SS	20%	6%
Tim Bronk	Assistant Laboratory Officer	TE&SS	20%	6%
Paul Teniere	Assistant Laboratory Officer	TE&SS	20%	6%
Dennis Graham	Marine Laboratory Specialist	TE&SS	20%	6%
Ted Gustafson	Marine Laboratory Specialist	TE&SS	26%	0%
Jennifer Henderson	Marine Laboratory Specialist	TE&SS	26%	0%
Eric Jackson	Marine Laboratory Specialist	TE&SS	26%	0%
Karen Johnston	Marine Laboratory Specialist	TE&SS	26%	0%
Chieh Peng	Assistant Laboratory Officer	TE&SS	20%	6%
Lisa Crowder	Assistant Laboratory Officer	TE&SS	20%	6%
Peter Kannberg	Marine Laboratory Specialist	TE&SS	26%	0%
Heather Paul	Marine Laboratory Specialist	TE&SS	26%	0%
Klayton Curtis	Marine Laboratory Specialist	TE&SS	26%	0%
Lisa Hawkins	Marine Laboratory Specialist	TE&SS	26%	0%
Mitch Malone	Supervisor of Science Support	TE&SS	24.5%	24.5%
C. Alvarez Zarikian	Staff Scientist	TE&SS	24.5%	24.5%
Adam Klaus	Staff Scientist	TE&SS	24.5%	24.5%
Jay Miller	Staff Scientist	TE&SS	24.5%	24.5%
Cedric John	Staff Scientist	TE&SS	24.5%	24.5%
TBN	Staff Scientist	TE&SS	24.5%	24.5%
TBN	Staff Scientist	TE&SS	24.5%	24.5%
TBN	Staff Scientist	TE&SS	0%	0%
TBN	Staff Scientist	TE&SS	0%	0%
Mike Storms	Supervisor of Operational Support	TE&SS	0%	26%
Gene Pollard	Operations Engineer	TE&SS	0%	19%
Ron Grout	Operations Superintendent	TE&SS	0%	26%
Steve Midgley	Operations Superintendent	TE&SS	0%	0%

Continued on next page.

## Science Operations Department Positions and Percent Effort (continued)

Employee	Position	WBE Element	SOC	POC
Pat Thompson	Supervisor of Materials Support	TE&SS	13%	13%
Dave Lehnert	Materials Specialist	TE&SS	6%	20%
Robert Mitchell	Marine Logistics Coordinator	TE&SS	20%	6%
Larry Obee	Marine Logistics Coordinator	TE&SS	20%	6%
Bob Kralich	Materials Technician	TE&SS	13%	13%
Justin Burt	Student Worker	TE&SS	20%	6%
Brian Wolf	Student Worker	TE&SS	20%	6%
Landon Hoppe	Student Worker	TE&SS	20%	6%
Robert McGehee	Student Worker	TE&SS	20%	6%
Lee McKnight	Student Worker	TE&SS	20%	6%
Jason Whitfield	Student Worker	TE&SS	20%	6%
Sandy Dillard	Shipping and Receiving Coordinator	TE&SS	13%	13%
	<b>FTEs</b>		<b>8.35</b>	<b>4.60</b>

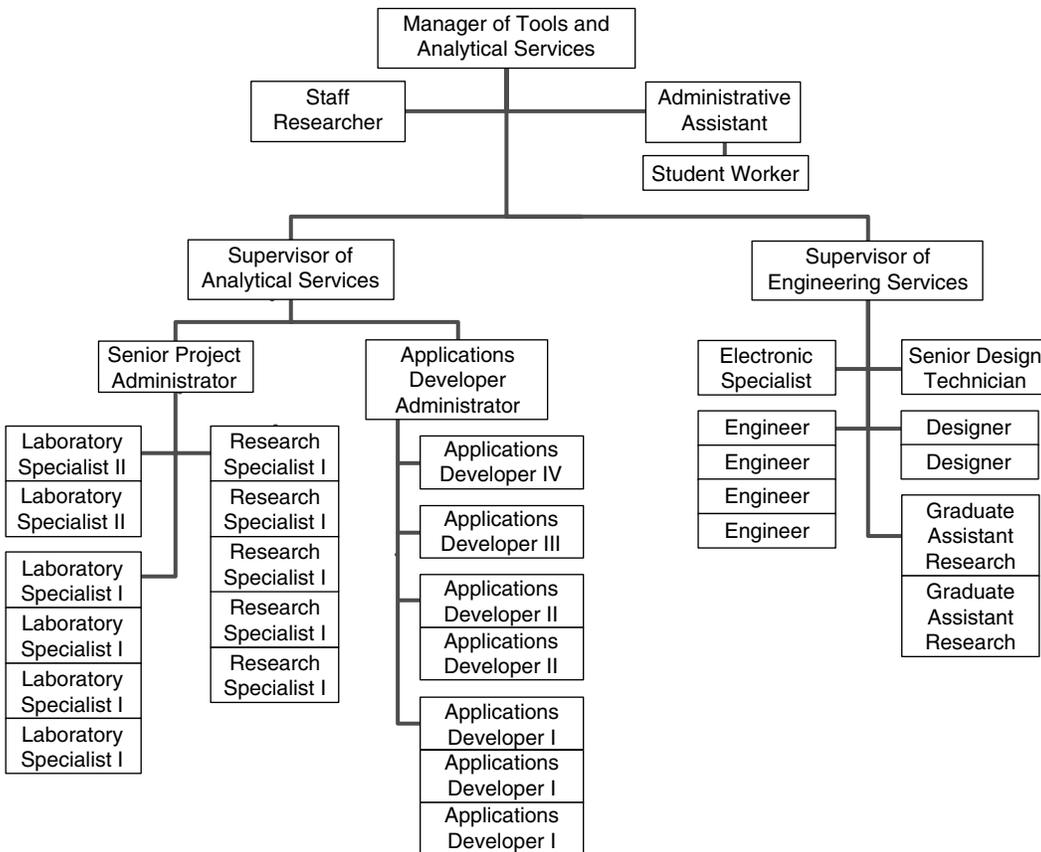
Notes: TE&SS = Technical, Engineering, and Science Support. FTE = full-time equivalent. Employee names reflect the individuals employed in each position at the date of the submission of this document.

## Tools and Analytical Services Department

The Tools and Analytical Services Department is responsible for laboratory, analytical, and engineering development support of all IODP-USIO riserless platform activities. These activities include support for drilling, coring, and downhole tools; design and procurement of complex legacy hole completions; development, planning, and support of laboratory instrumentation; development and support of scientific analysis programs; maintenance and support of laboratory and downhole equipment and associated software interfaces with the Janus database; maintenance and operational support of the shore-based laboratories; and interface with industry, government, and academia.

To fulfill its responsibilities, the department is divided into two sections: Analytical Services and Engineering Services (see organizational chart and table of positions and percent effort below).

### IODP-USIO Science Services, TAMU Tools and Analytical Services Department



## Tools and Analytical Services Department Positions and Percent Effort

Employee	Position	WBS Element	% Effort SOC	% Effort POC
TBN	Manager of Tools and Analytical Services	TE&SS	19%	6%
Karen Graber	Staff Researcher	TE&SS	12.5%	12.5%
Marti Kacer	Administrative Assistant	TE&SS	12.5%	12.5%
Blake Hardgrave	Student Worker	TE&SS	25%	25%
Peter Blum	Supervisor of Analytical Services	TE&SS	19%	6%
David Houpt	Senior Project Administrator	TE&SS	19%	6%
Jason Deardorff	Laboratory Specialist II	TE&SS	19%	6%
Bob Wheatley	Laboratory Specialist II	TE&SS	19%	6%
Lisa Brandt	Laboratory Specialist I	TE&SS	12.5%	12.5%
TBN	Laboratory Specialist I	TE&SS	12.5%	12.5%
TBN	Laboratory Specialist I	TE&SS	19%	6%
TBN	Laboratory Specialist I	TE&SS	19%	6%
Chris Bennight	Research Specialist I	TE&SS	12.5%	12.5%
Trevor Cobine	Research Specialist I	TE&SS	19%	6%
Margaret Hastedt	Research Specialist I	TE&SS	23%	6%
TBN	Research Specialist I*	TE&SS	25%	0%
TBN	Research Specialist I*	TE&SS	25%	0%
Paul Foster	Applications Developer Administrator	TE&SS	19%	6%
David Fackler	Applications Developer IV	TE&SS	23%	6%
Dwight Hornbacher	Applications Developer III	TE&SS	19%	6%
John Eastlund	Applications Developer II	TE&SS	19%	6%
TBN	Applications Developer II*	TE&SS	25%	0%
TBN	Applications Developer I	TE&SS	19%	6%
TBN	Applications Developer I	TE&SS	19%	6%
TBN	Applications Developer I	TE&SS	0%	0%
Derryl Schroeder	Supervisor of Engineering Services	TE&SS	10%	10%
TBN	Electronic Specialist	TE&SS	20%	5%
Liping Chen	Engineer	TE&SS	15%	5%
Kevin Grigar	Engineer	TE&SS	10%	15%
Bob Aduddell	Engineer	TE&SS	20%	15%
TBN	Engineer	TE&SS	20%	15%
Eric Schulte	Senior Design Technician	TE&SS	10%	10%
Richard Dixon	Designer	TE&SS	5%	15%
Dean Ferrell	Designer	TE&SS	5%	15%
TBN	Graduate Assistant Research	TE&SS	15%	15%
TBN	Graduate Assistant Research	TE&SS	15%	15%
	<b>FTEs</b>		<b>6.01</b>	<b>3.13</b>

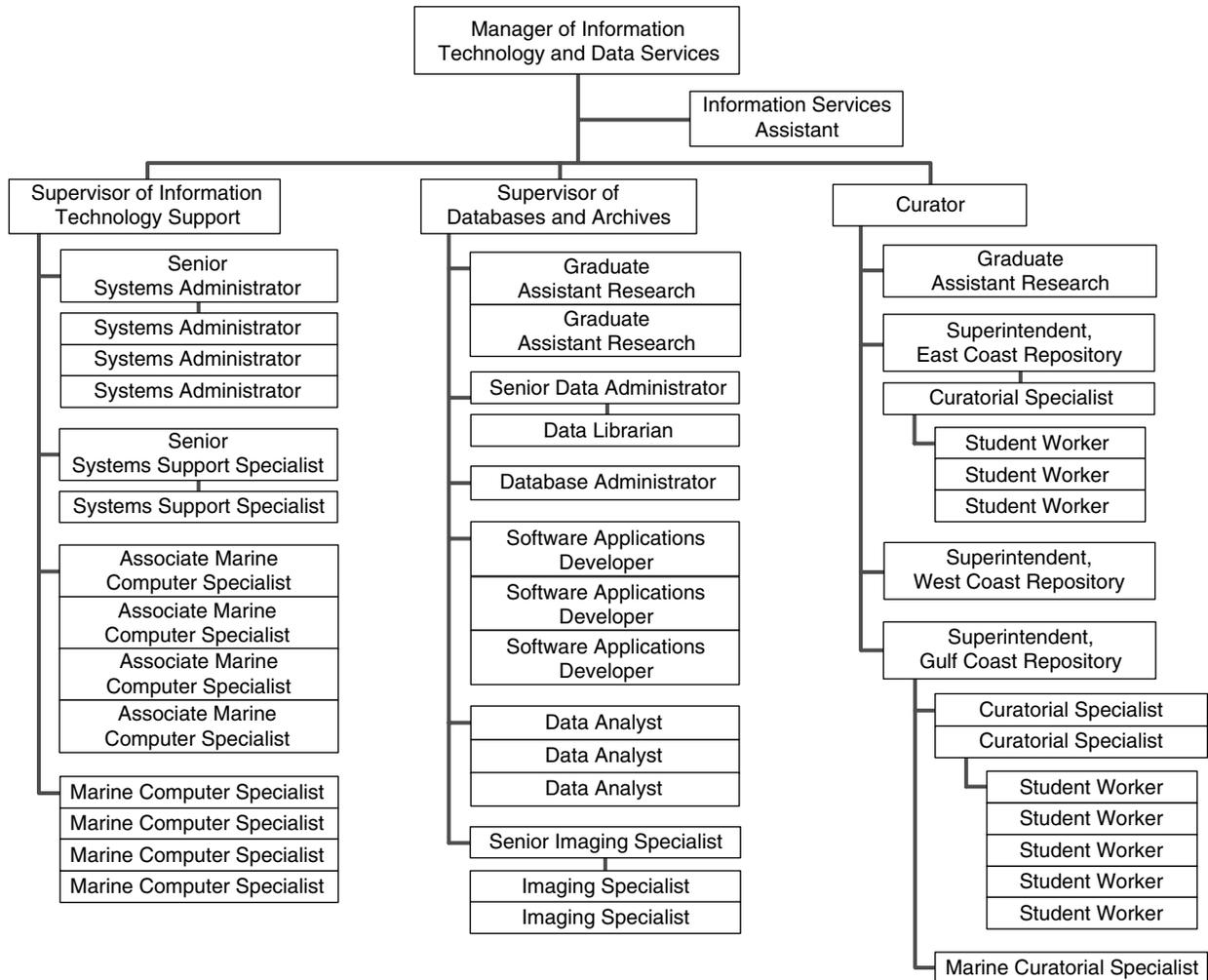
Notes: TE&SS = Technical, Engineering, and Science Support. FTE = full-time equivalent. \* = new positions for FY06. Employee names reflect the individuals employed in each position at the date of the submission of this document.

## Information Technology and Data Services Department

The Information Technology and Data Services Department is responsible for providing state-of-the-art network and computing facilities on board the riserless drillship and on shore; ensuring data quality collected on the riserless vessel; archiving data; providing data and samples to the community; managing the USIO core collections; and interacting with the SAS committees, other IOs to integrate the department's information technology (IT) and data handling efforts across the entire IODP, with coordination by IODP-MI.

To fulfill its responsibilities, the department is divided into three sections: Information Technology Support, Database and Archives, and Curation (see organizational chart and table of positions and percent effort below).

### IODP-USIO Science Services, TAMU Information Technology and Data Services Department



**Information Technology and Data Services Department  
Positions and Percent Effort**

<b>Employee</b>	<b>Position</b>	<b>WBE Element</b>	<b>% Effort SOC</b>	<b>% Effort POC</b>
Dave Becker	Manager of Information Technology and Data Services	TE&SS	40%	0%
Denise Ponzio	Information Services Assistant	TE&SS	83%	0%
Phil Gates	Supervisor of Information Technology Support	TE&SS	41%	0%
TBN	Senior Systems Administrator	TE&SS	50%	0%
Cesar Flores	Systems Administrator	TE&SS	33%	0%
Jennifer Hutchinson	Systems Administrator	TE&SS	41%	0%
Matt Mefferd	Systems Administrator	TE&SS	50%	0%
Michael Petersen	Senior Systems Support Specialist	TE&SS	70%	0%
Tariq Ayyub	Systems Support Specialist	TE&SS	70%	0%
David Morley	Associate Marine Computer Specialist	TE&SS	53%	0%
Mike Hodge	Associate Marine Computer Specialist	TE&SS	54%	0%
TBN	Associate Marine Computer Specialist	TE&SS	54%	0%
TBN	Associate Marine Computer Specialist	TE&SS	62%	0%
Paula Clark	Marine Computer Specialist	TE&SS	54%	0%
TBN	Marine Computer Specialist	TE&SS	54%	0%
TBN	Marine Computer Specialist	TE&SS	50%	0%
TBN	Marine Computer Specialist	TE&SS	50%	0%
Rakesh Mithal	Supervisor of Databases and Archives	DM	40%	0%
Julie Garcia	Graduate Assistant Research	DM	0%	0%
TBN	Graduate Assistant Research	DM	0%	0%
TBN	Senior Data Administrator	DM	100%	0%
Bo Slone	Data Librarian	DM	100%	0%
Layne Westover	Database Administrator	DM	100%	0%
Weining Chen	Software Applications Developer	DM	50%	0%
Ying Zhu	Software Applications Developer	DM	50%	0%
TBN	Software Applications Developer	DM	0%	0%
Bob Goll	Data Analyst	DM	0%	0%
Don Sims	Data Analyst	DM	100%	0%
Elizabeth Slone	Data Analyst	DM	0%	0%
John Beck	Senior Imaging Specialist	DM	42%	0%
Bill Crawford	Imaging Specialist	DM	50%	0%
Shannon Housley	Imaging Specialist	DM	50%	0%
John Firth	Curator	CC	71%	0%
Emily Springer	Graduate Assistant Research	CC	50%	0%
Gar Esmay	Superintendent, East Coast Repository	CC	96%	0%
Yasmin Yabyabin	Curatorial Specialist	CC	50%	0%
Dan Mountain	Student Worker	CC	25%	0%
TBN	Student Worker	CC	50%	0%
TBN	Student Worker	CC	13%	0%
Steve Prinz	Superintendent, West Coast Repository	CC	96%	0%

Continued on next page.

**Information Technology and Data Services Department  
Positions and Percent Effort (continued)**

<b>Employee</b>	<b>Position</b>	<b>WBE Element</b>	<b>% Effort SOC</b>	<b>% Effort POC</b>
Phil Rumford	Superintendent, Gulf Coast Repository	CC	92%	0%
Bruce Horan	Curatorial Specialist	CC	92%	0%
TBN	Curatorial Specialist*	CC	50%	0%
Ross Berlin	Student Worker	CC	50%	0%
Jonathan King	Student Worker	CC	50%	0%
Clayton Mack	Student Worker	CC	0%	0%
Brian Schramm	Student Worker	CC	0%	0%
TBN	Student Worker	CC	50%	0%
Paula Weiss	Marine Curatorial Specialist	CC	54%	0%
	<b>FTEs</b>		<b>24.80</b>	<b>0.00</b>

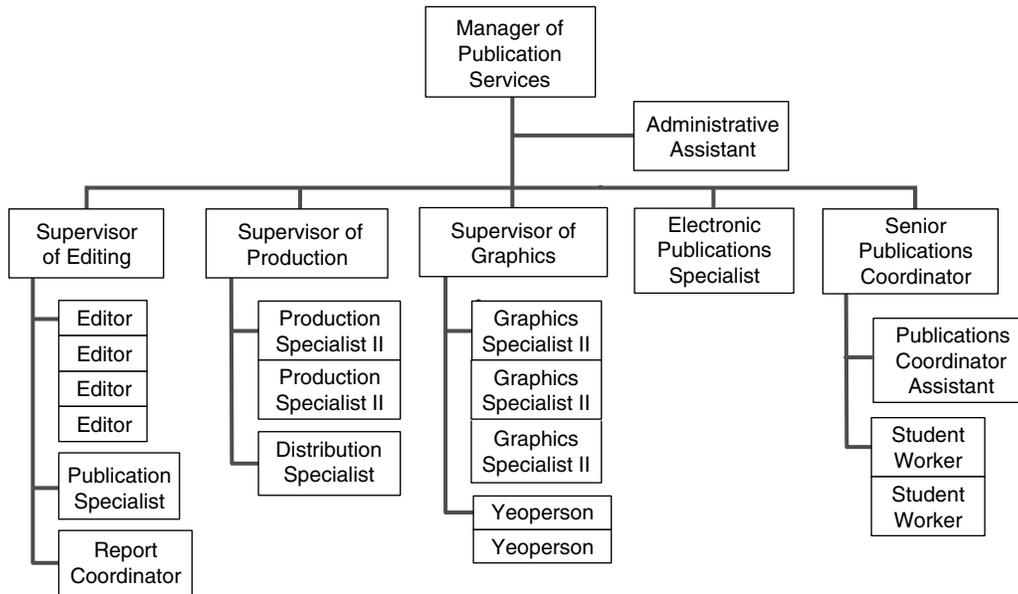
Notes: TE&SS = Technical, Engineering, and Science Support, DM = Data Management, CC = Core Curation. FTE = full-time equivalent. \* = new positions for FY06. Employee names reflect the individuals employed in each position at the date of the submission of this document.

## Publication Services Department

The Publication Services Department is responsible for developing, producing, delivering, and archiving all required reports and publications for the IODP-USIO in support of the riserless drilling vessel. In addition, the department will produce and publish the European Consortium for Ocean Research Drilling (ECORD) Science Operator (ESO) Expedition 310 initial shipboard publication. The department also serves as a publications liaison to IODP-MI, other IOs, and SAS panels to ensure communication and collaboration within the international ocean drilling community.

To fulfill its IODP responsibilities, the department is divided into three sections: Editing, Production, and Graphics (see organizational chart and table of positions and percent effort below).

### IODP-USIO Science Services, TAMU Publication Services Department



Funding is also included for up to 2.45 FTEs for additional editing, graphics, and production support on an as-needed basis.

## Publication Services Department Positions and Percent Effort

Employee	Position	WBE Element	% Effort SOC	% Effort POC
Angie Miller	Manager of Publication Services	P	70%	0%
Barbara Turner	Administrative Assistant	P	70%	0%
Lorri Peters	Supervisor of Editing	P	60%	0%
Amy McWilliams	Editor	P	50%	0%
Heather Nevill	Editor	P	50%	0%
Shana Smith	Editor	P	50%	0%
TBN	Editor*	P	0%	0%
Kathy Phillips	Publication Specialist	P	35%	0%
Ginny Lowe	Report Coordinator	P	65%	0%
Jaime Gracia	Supervisor of Production	P	50%	0%
TBN	Production Specialist II	P	50%	0%
Kenneth Sherar	Production Specialist II	P	50%	0%
Ann Yeager	Distribution Specialist	P	40%	0%
Debbie Partain	Supervisor of Graphics	P	68%	0%
Patrick Edwards	Graphics Specialist II	P	50%	0%
Jennie Lamb	Graphics Specialist II	P	75%	0%
Nancy Luedke	Graphics Specialist II	P	75%	0%
Jennifer Presley	Yeoperson	P	75%	0%
TBN	Yeoperson	P	75%	0%
Jennifer Rumford	Electronic Publications Specialist	P	0%	0%
Gigi Delgado	Senior Publications Coordinator	P	0%	0%
Mary Mitchell	Publications Coordinator Assistant	P	0%	0%
Anthony Caviness	Student Worker	P	0%	0%
Brooke Perry	Student Worker	P	0%	0%
TBN	Additional Support**	P	0%	0%
	<b>FTEs</b>		<b>10.58</b>	<b>0.00</b>

Notes: P = Publications. FTE = full-time equivalent. \* new position for FY06. \*\* funding is also included for up to 2.45 FTEs for additional editing, graphics, and production support on an as-needed basis. Employee names reflect the individuals employed in each position at the date of the submission of this document.

## MAPPING OF DEPARTMENTS TO WORK BREAKDOWN ELEMENTS

The organizational structure summarized in the foregoing section partitions the IODP-USIO Science Services, TAMU/TAMRF, functional and technical activities into manageable units that seamlessly integrate, allowing us to effectively and efficiently contribute to the mission of the IODP-USIO. These functional units are easily mapped into five Work Breakdown Elements (WBEs) used by IODP-MI (see table on next page for mapping of department cost centers to WBEs) in the following manner:

**Management and Administration:** The responsibilities, tasks, deliverables, and costs for the Headquarters and Administrative Service Departments map into this element.

**Technical, Engineering, and Science Support:** The responsibilities, tasks, deliverables, and costs for the Science Operations Department and Tools and Analytical Services Departments map into this element. In addition, the Information Technology Support Section of the Information Technology and Data Services Department and this department's Manager and Information Services Assistant are incorporated in this WBE. (Note: The Information Technology Support Section is responsible for the computer network and computing facilities on the USIO riserless vessel and shore-based operations at TAMU).

**Core Curation:** The responsibilities, tasks, deliverables, and costs for the Curatorial Section of the Information Technology and Data Services Department map completely into this element.

**Data Management:** The responsibilities, tasks, deliverables, and costs for the Database and Archives Section of the Information Technology and Data Services Department map completely into this element.

**Publications:** The responsibilities, tasks, deliverables and costs for the Publications Services Department map completely into this element.

## TAMU/TAMRF Department Cost Centers by Work Breakdown Element

TAMU/TAMRF Dept. Budgets	Dept. Accounts	Salary/ Fringes	Travel	Supplies	Shipping	Comm.	Contract. Services	Equip.	Day Rate	Fuel	Per Diem	Port Calls	Ins.	Other Direct Costs
<b>MANAGEMENT AND ADMINISTRATION</b>														
Headquarters Dept.—Office	414013-01000	2000	3500/ 3580	4000	5261	5370/ 5373	6509	8400/ 8450						3533/3551/3600/3720/ 4720/4765/5042/5070/ 5280/5550/5569/5570/ 5590/5931/5986/5987/ 6590/6594/6820/8510
Administrative Services Dept.	414023-01000	2000	3500/ 3580	4000	5261	5370/ 5373	6509	8400/ 8450						3533/3551/3600/3720/ 4720/4765/5042/5070/ 5280/5550/5569/5570/ 5590/5931/5986/5987/ 6590/6594/6820/8510/ 9683
<b>TECHNICAL, ENGINEERING, AND SCIENCE SUPPORT</b>														
Science Operations Dept.—Office	414033-01000	2000	3500/ 3580	4000	5261	5370/ 5373	6509	8400/ 8450						3533/3551/3600/3720/ 4720/4765/5042/5070/ 5280/5550/5569/5570/ 5590/5931/5986/5987/ 6590/6594/6820/8510
Science Operations Dept.—Technical Support	414033-02000	2000	3500/ 3580	4000	5261	5370/ 5373	6509	8400/ 8450						3533/3551/3600/3720/ 4720/4765/5042/5070/ 5280/5550/5569/5570/ 5590/5931/5986/5987/ 6590/6594/6820/8510
Science Operations Dept.—Science Support	414033-03000	2000	3500/ 3580	4000	5261	5370/ 5373	6509	8400/ 8450						3533/3551/3600/3720/ 4720/4765/5042/5070/ 5280/5550/5569/5570/ 5590/5931/5986/5987/ 6590/6594/6820/8510
Science Operations Dept.—Operations Support	414033-04000	2000	3500/ 3580	4000	5261	5370/5373	6509	8400/ 8450						3533/3551/3600/3720/ 4720/4765/5042/5070/ 5280/5550/5569/5570/ 5590/5931/5986/5987/ 6590/6594/6820/8510

Note: See next table for descriptions of four-digit expense subcodes used in this table.

Continued on next three pages.

**TAMU/TAMRF Department Cost Centers by Work Breakdown Element (continued)**

TAMU/TAMRF Dept. Budgets	Dept. Accounts	Salary/ Fringes	Travel	Supplies	Shipping	Comm.	Contract. Services	Equip.	Day Rate	Fuel	Per Diem	Port Calls	Ins.	Other Direct Costs
<b>TECHNICAL, ENGINEERING, AND SCIENCE SUPPORT (continued)</b>														
Science Operations Dept.—Materials Support	414033-05000	2000	3500/ 3580	4000	5261	5370/5373	6509	8400/ 8450						3533/3551/3600/3720/ 4720/4765/5042/5070/ 5280/5550/5569/5570/ 5590/5931/5986/5987/ 6590/6594/6820/8510
Tools & Analytical Services Dept.— Office	414043-01000	2000	3500/ 3580	4000	5261	5370/5373	6509	8400/ 8450						3533/3551/3600/3720/ 4720/4765/5042/5070/ 5280/5550/5569/5570/ 5590/5931/5986/5987/ 6590/6594/6820/8510
Tools & Analytical Services Dept.— Analytical Services	414043-02000	2000	3500/ 3580	4000	5261	5370/5373	6509	8400/ 8450						3533/3551/3600/3720/ 4720/4765/5042/5070/ 5280/5550/5569/5570/ 5590/5931/5986/5987/ 6590/6594/6820/8510
Tools & Analytical Services Dept.— Engineering Services	414043-03000	2000	3500/ 3580	4000	5261	5370/5373	6509	8400/ 8450						3533/3551/3600/3720/ 4720/4765/5042/5070/ 5280/5550/5569/5570/ 5590/5931/5986/5987/ 6590/6594/6820/8510
Information Technology & Data Services Dept.—Office	414053-01000	2000	3500/ 3580	4000	5261	5370/5373	6509	8400/ 8450						3533/3551/3600/3720/ 4720/4765/5042/5070/ 5280/5550/5569/5570/ 5590/5931/5986/5987/ 6590/6594/6820/8510
Information Technology & Data Services Dept.— Information Technology Support	414053-02000	2000	3500/ 3580	4000	5261	5370/5373	6509	8400/ 8450						3533/3551/3600/3720/ 4720/4765/5042/5070/ 5280/5550/5569/5570/ 5590/5931/5986/5987/ 6590/6594/6820/8510

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**TAMU/TAMRF Department Cost Centers by Work Breakdown Element (continued)**

TAMU/TAMRF Dept. Budgets	Dept. Accounts	Salary/ Fringes	Travel	Supplies	Shipping	Comm.	Contract. Services	Equip.	Day Rate	Fuel	Per Diem	Port Calls	Ins.	Other Direct Costs
<b>TECHNICAL, ENGINEERING, AND SCIENCE SUPPORT (continued)</b>														
Ship Operations— Subcontractor	414073-01000								7040	4750	3760	7090		3750
Ship Operations— IODP General Support	414073-02000			4000		5373							5070	3533/3551/3600/3720/ 4720/4765/5042/5280/ 5550/5569/5570/5590/ 5931/5981/5986/5987/ 6590/6592/6594/6820/ 8510
<b>CORE CURATION</b>														
Information Technology & Data Services Dept.—Curation Office	414053-04000	2000	3500/ 3580	4000	5261	5370/5373	6509	8400/ 8450						3533/3551/3600/3720/ 4720/4765/5042/5070/ 5280/5550/5569/5570/ 5590/5931/5986/5987/ 6590/6594/6820/8510
Information Technology & Data Services Dept.—East Coast Repository	414053-05000	2000	3500/ 3580	4000	5261	5370/5373	6509	8400/ 8450						3533/3551/3600/3720/ 4720/4765/5042/5070/ 5280/5550/5569/5570/ 5590/5931/5986/5987/ 6590/6594/6820/8510
Information Technology & Data Services Dept.—West Coast Repository	414053-06000	2000	3500/ 3580	4000	5261	5370/5373	6509	8400/ 8450						3533/3551/3600/3720/ 4720/4765/5042/5070/ 5280/5550/5569/5570/ 5590/5931/5986/5987/ 6590/6594/6820/8510
Information Technology & Data Services Dept.—Gulf Coast Repository	414053-07000	2000	3500/ 3580	4000	5261	5370/5373	6509	8400/ 8450						3533/3551/3600/3720/ 4720/4765/5042/5070/ 5280/5550/5569/5570/ 5590/5931/5986/5987/ 6590/6594/6820/8510

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**TAMU/TAMRF Department Cost Centers by Work Breakdown Element (continued)**

TAMU/TAMRF Dept. Budgets	Dept. Accounts	Salary/ Fringes	Travel	Supplies	Shipping	Comm.	Contract. Services	Equip.	Day Rate	Fuel	Per Diem	Port Calls	Ins.	Other Direct Costs
<b>CORE CURATION (continued)</b>														
Information Technology & Data Services Dept.— DSDP/ODP Core Redistribution	414053-08000	2000	3500/ 3580	4000	5261	5370/5373	6509	8400/ 8450						3533/3551/3600/3720/ 4720/4765/5042/5070/ 5280/5550/5569/5570/ 5590/5931/5986/5987/ 6590/6594/6820/8510
<b>DATA MANAGEMENT</b>														
Information Technology & Data Services Dept.— Database Support	414053-03000	2000	3500/ 3580	4000	5261	5370/5373	6509	8400/ 8450						3533/3551/3600/3720/ 4720/4765/5042/5070/ 5280/5550/5569/5570/ 5590/5931/5986/5987/ 6590/6594/6820/8510
<b>PUBLICATIONS</b>														
Publication Services Department	414063-01000	2000	3500/ 3580	4000	5261	5370/5373	6509	8400/ 8450						3533/3551/3600/3720/ 4720/4765/5042/5070/ 5280/5550/5569/5570/ 5590/5931/5986/5987/ 6590/6594/6820/8510
<b>EDUCATION AND OUTREACH</b>														
Headquarters Dept.— Education/Outreach	414013-02000	2000	3500/ 3580	4000	5261	5370/5373	6509	8400/ 8450						3533/3551/3600/3720/ 4720/4765/5042/5070/ 5280/5550/5569/5570/ 5590/5931/5986/5987/ 6590/6594/6820/8510

## TAMU/TAMRF Expense Subcode List

Subcode	Expense Category
2000	Salary and Wages
3533	Drilling Clearances
3500	Travel
3551	Relocation
3580	Travel to/from Port
3600	Training
3720	Business Conferences
3750	Travel-ODL
3760	Per Diem
4000	Supplies
4720	Cylinder Deposits
4750	Fuel and Lubricants
4765	Software
5042	Utilities-Shore
5070	Insurance
5261	Shipping
5280	Publications/Printing
5370	Telecommunications
5373	Ship-to-Shore Communications
5550	Services
5569	Other Computing Services
5570	Consultant Services
5590	TAMU Computing Services
5931	Equipment Rental
5981	Other Expense-ODL
5986	Furniture
5987	Recruiting
6509	Subcontracts
6590	Fees
6592	Accountant Fees
6594	Legal Fees
6820	Maintenance and Repair
7040	Day Rates
7090	Port Calls
8400	Equipment
8450	Equipment-Non-inventory Controlled
8510	Library
9683	Administrative Fee

# FY06 IODP-USIO SCIENCE SERVICES, TAMU/TAMRF, TASK-ELEMENT SUMMARY BUDGET

Description	SOC	POC	Total
Management and Administration	1,400,924	444,868	1,845,792
Technical, Engineering, and Science Support	3,545,249	8,251,916	11,797,165
<b>Subtotal Technical, Engineering, and Science Support</b>	<b>3,120,249</b>	<b>8,251,916</b>	<b>11,372,165</b>
<b>Subtotal Engineering Development</b>	<b>425,000</b>	<b>0</b>	<b>425,000</b>
Core Curation	1,251,655	0	1,251,655
<b>Subtotal Core Curation</b>	<b>745,260</b>	<b>0</b>	<b>745,260</b>
<b>Subtotal DSDP/ODP Core Redistribution</b>	<b>506,395</b>	<b>0</b>	<b>506,395</b>
Data Management	784,897	0	784,897
Publications	882,468	0	882,468
Logging	0	0	0
Education and Outreach	0	0	0
Administrative Fee	133,511	133,511	267,022
<b>Total IODP-USIO Science Services, TAMU/TAMRF</b>	<b>7,865,193</b>	<b>8,696,784</b>	<b>16,561,977</b>

# FY06 IODP-USIO SCIENCE SERVICES, TAMU/TAMRF, TASK-ELEMENT SUMMARY BUDGET DETAIL

Element/Expense Category	SOC	POC	Total
<b>Management and Administration</b>			
Salaries and Fringes	1,077,178	254,296	1,331,474
Travel	122,784	34,498	157,282
Supplies	12,738	4,162	16,900
Shipping	3,338	1,112	4,450
Communication	13,132	4,544	17,676
Contractual Services	0	0	0
Equipment	0	0	0
Other Direct Costs	38,243	12,745	50,988
<b>Subtotal Direct Costs</b>	<b>1,267,413</b>	<b>311,357</b>	<b>1,578,770</b>
Administrative Fee	133,511	133,511	267,022
<b>Total Management and Administration</b>	<b>1,400,924</b>	<b>444,868</b>	<b>1,845,792</b>
<b>Technical, Engineering, and Science Support</b>			
Salaries and Fringes	1,469,070	598,876	2,067,946
Travel	91,920	4,299	96,219
Supplies	56,704	14,034	70,738
Shipping	95,831	45,144	140,975
Communication	30,152	51,112	81,264
Contractual Services	0	0	0
Equipment	593,806	997	594,803
Other Direct Costs	782,766	7,537,454	8,320,220
Day Rate	0	6,098,708	6,098,708
Fuel	0	939,900	939,900
Per Diem	0	132,828	132,828
Port Calls	0	188,271	188,271
Insurance	0	158,112	158,112
Other	782,766	19,635	802,401
<b>Subtotal Technical, Engineering, and Science Support</b>	<b>3,120,249</b>	<b>8,251,916</b>	<b>11,372,165</b>
<b>Subtotal Engineering Development</b>	<b>425,000</b>	<b>0</b>	<b>425,000</b>
<b>Subtotal Direct Costs</b>	<b>3,545,249</b>	<b>8,251,916</b>	<b>11,797,165</b>
Administrative Fee	0	0	0
<b>Total Technical, Engineering, and Science Support</b>	<b>3,545,249</b>	<b>8,251,916</b>	<b>11,797,165</b>

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# FY06 IODP-USIO SCIENCE SERVICES, TAMU/TAMRF, TASK-ELEMENT SUMMARY BUDGET DETAIL (CONTINUED)

Element/Expense Category	SOC	POC	Total
<b>Core Curation</b>			
Salaries and Fringes	403,297	0	403,297
Travel	22,751	0	22,751
Supplies	35,700	0	35,700
Shipping	37,600	0	37,600
Communication	4,630	0	4,630
Contractual Services	0	0	0
Equipment	0	0	0
Other Direct Costs	241,282	0	241,282
<b>Subtotal Core Curation</b>	<b>745,260</b>	<b>0</b>	<b>745,260</b>
<b>Subtotal DSDP/ODP Core Redistribution</b>	<b>506,395</b>	<b>0</b>	<b>506,395</b>
Subtotal Direct Costs	1,251,655	0	1,251,655
Administrative Fee	0	0	0
<b>Total Core Curation</b>	<b>1,251,655</b>	<b>0</b>	<b>1,251,655</b>
<b>Data Management</b>			
Salaries and Fringes	414,051	0	414,051
Travel	18,168	0	18,168
Supplies	11,000	0	11,000
Shipping	1,000	0	1,000
Communication	0	0	0
Contractual Services	0	0	0
Equipment	3,400	0	3,400
Other Direct Costs	337,278	0	337,278
Subtotal Direct Costs	784,897	0	784,897
Administrative Fee	0	0	0
<b>Total Data Management</b>	<b>784,897</b>	<b>0</b>	<b>784,897</b>
<b>Publications</b>			
Salaries and Fringes	700,009	0	700,009
Travel	28,175	0	28,175
Supplies	9,800	0	9,800
Shipping	17,810	0	17,810
Communication	4,000	0	4,000
Contractual Services	74,200	0	74,200
Equipment	0	0	0
Other Direct Costs	48,474	0	48,474
Subtotal Direct Costs	882,468	0	882,468
Administrative Fee	0	0	0
<b>Total Publications</b>	<b>882,468</b>	<b>0</b>	<b>882,468</b>

# FY06 IODP-USIO SCIENCE SERVICES, TAMU/TAMRF, TASK-ELEMENT SUMMARY BUDGET DETAIL (CONTINUED)

Element/Expense Category	SOC	POC	Total
<b>Education and Outreach</b>			
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
Subtotal Direct Costs	0	0	0
Administrative Fee	0	0	0
<b>Total Education and Outreach</b>	<b>0</b>	<b>0</b>	<b>0</b>
Grand Total Direct Costs	7,731,682	8,563,273	16,294,955
Administrative Fee	133,511	133,511	267,022
<b>Total IODP-USIO Science Services, TAMU/TAMRF</b>	<b>7,865,193</b>	<b>8,696,784</b>	<b>16,561,977</b>

# MANAGEMENT AND ADMINISTRATION

## RESPONSIBILITIES

The Management and Administration WBE is supported by the Headquarters and Administrative Services Departments. The following responsibilities and tasks support the Management and Administration WBE.

### Science Services, TAMU, Management

- Oversee and deliver all IODP-USIO Science Services, TAMU, activities and deliverables and ensure they are consistent with NSF and IODP-MI requirements.
- Develop a sound fiscal Program Plan for science operations and data services that is consistent with the guidance of NSF and IODP-MI.
- Provide resource overview and direction that is consistent with the annual IODP-USIO, TAMU, Program Plan as defined by NSF and IODP-MI.
- Provide sound fiscal and contractual management of the activities and deliverables for which IODP-USIO Science Services, TAMU/TAMRF, is responsible.
- Ensure that the IODP-MI–endorsed HSE standards are rigorously followed and that geological hazard reviews and international permitting adhere to local, state, federal, and international regulations.
- Assure and monitor coordination with other JOI Alliance institutions, IODP-MI, and other IOs.
- Interface, as appropriate, with SAS panels (i.e., Science Planning and Policy Oversight Committee [SPPOC]), the IODP-MI Operations Task Force, the TAMU safety panel, and other representatives of the science community. Ensure engaged and constructive participation by IODP-USIO Science Services, TAMU, representatives on all relevant IODP committees.
- Represent IODP-USIO interests at appropriate meetings.
- Manage the Science Services Division of IODP-USIO Science Services, TAMU:
  - Oversee two departments that are focused on the successful implementation of expeditions at sea (Science Operations Department) and the technological development of analytical and engineering tools in support of science (Tools and Analytical Services Department).
  - Oversee planning, implementation, and review of each expedition.
  - Coordinate the review of geological hazard assessments.
  - Ensure that the vessel subcontractor for IODP-USIO Phase 1 provides a vessel that is safe and efficient and meets the requirements defined in the Systems Integration Subcontract with JOI.
- Manage the Data Services Division of IODP-USIO Science Services, TAMU:
  - Oversee two departments that are focused on the successful management of the IODP-USIO’s scientific legacy, including core collections, core images, databases, and the information technology systems used to facilitate all Science Operator activities (Information Technology and Data Services Department) and the production of required reports and publications (Publication Services Department). Oversee planning and implementation of curation, database, and publication legacy activities.

- Oversee network and computer infrastructure for IODP-USIO Science Services, TAMU.
- Provide Web administration support for the JOI Alliance and manages the IODP-USIO Science Services, TAMU, Web site.
- Facilitate outreach and education activities for the IODP-USIO in coordination with other JOI Alliance institutions, IODP-MI, SAS panels, other IOs, IODP member/consortia funding agencies, and members of the education community and other representatives of the science community.

### **Contracts, Property, and Procurement, TAMRF, Management**

- Manage the IODP-USIO Science Services, TAMU, procurement/property and contract activities to assist the staff in meeting their objectives and assures compliance with the specific terms of the contract(s) and applicable government regulations. This includes subcontract negotiations; issuing and monitoring solicitations; advising staff on allowability, regulations, and JOI approval requirements; drillship subcontract activities; issuing purchase orders, including applicable special terms and conditions; writing and processing subcontract documents; and establishing government property records and coordinating physical inventories.

### **Fiscal Affairs, TAMRF, Management**

- Manage all fiscal activities of the subcontract through the Fiscal Affairs Section, consisting of Accounts Payable/Accounts Receivable, Budget Planning/Analysis, and Payroll. This includes budget monitoring, forecasting, internal reporting, conducting budget reviews, manually converting department reports into element/subelement format, processing payroll for all employees, maintaining two separate payroll reporting systems, performing all payable and receivable functions, and overseeing external audit activities.
- Provide effective and auditable administrative services at a reasonable cost.
- Maintain a robust fiscal reporting capability.
- Establish more detailed reporting capability through Microsoft Access.
- Implement results of expense coding system analysis.
- Implement a process to provide information to employees on policies and forms that can be completed online to better serve IODP-USIO Science Services, TAMU, employees.
- Work with the Human Resources and Insurance Services Section to assure compliance with new privacy policies.
- Provide fiscal assistance with immigration activities.

### **Human Resources and Insurance Services, TAMRF, Management**

- Provide administrative service functions including human resource (HR) administration and insurance and risk management. These services include screening and interviewing prospective employees, counseling employees, assisting employees with compensation and fringe benefit matters, providing training information, maintaining personnel databases, and assisting with immigration activities.
- Review and develop specialized policies and procedures to better serve the requirements of Program participants.
- Provide assistance to other departments to expedite 100% on-time return of performance appraisal and position descriptions during the annual performance review period.

- Review and evaluate the Human Resources link to the IODP-USIO Science Services, TAMU, main Web page, providing up to date information to employees on policies, insurance, retirement, and training.
- Continue to implement mechanisms that increase employee awareness of retirement, insurance, and employee assistance programs.
- Review and identify the needs of the Program or individual departments and provide the necessary individual or Program-wide training to accomplish the mission of IODP-USIO Science Services, TAMU/TAMRF.

### **Travel/Conference Coordination, TAMRF, Management**

- Accommodate IODP-USIO Science Services, TAMU/TAMRF, travel needs and travelers in an efficient and cost-effective manner in accordance with approved policies and procedures.
- Manage an onsite corporate Travel Department that independently oversees all travel-related IODP-USIO Science Services, TAMU, activities, as well as reporting of travel documents to the Airlines Reporting Corporation.
- Develop IODP-USIO Science Services, TAMU/TAMRF, travel policies and procedures. Assure compliance of these policies from the time travel is authorized until the expense account is processed after completion of the trip. Track outstanding travel advances and expense accounts, reporting delinquent accounts as required by Internal Revenue Service (IRS) regulations.
- When necessary, assist IODP-USIO Science Services, TAMU, travelers with obtaining foreign visitor's visas. Work closely with foreign consulate officers to ensure that all supporting documentation is provided with visa applications to expedite the process.
- Negotiate with travel vendors for travel services such as reduced rates and cost-saving programs that will benefit the Program.

## MANAGEMENT AND ADMINISTRATION BUDGET

Expense Category	SOC	POC	Total
Salaries and Fringes	1,077,178	254,296	1,331,474
Travel	122,784	34,498	157,282
Supplies	12,738	4,162	16,900
Shipping	3,338	1,112	4,450
Communication	13,132	4,544	17,676
Contractual Services	0	0	0
Equipment	0	0	0
Other Direct Costs	38,243	12,745	50,988
Training	10,950	3,650	14,600
Business Conferences	2,175	725	2,900
Software	1,088	362	1,450
Insurance	2,475	825	3,300
Services	5,226	1,742	6,968
Other Computing Services	938	312	1,250
TAMU Computing Services	8,213	2,737	10,950
Equipment Rental	225	75	300
Furniture	2,550	850	3,400
Recruiting	750	250	1,000
Maintenance and Repair	1,628	542	2,170
Library	2,025	675	2,700
Total Direct Costs	1,267,413	311,357	1,578,770
Administrative Fee	133,511	133,511	267,022
<b>Total Management and Administration</b>	<b>1,400,924</b>	<b>444,868</b>	<b>1,845,792</b>

Funds for this WBE are budgeted as follows:

**Salaries and Fringes**—Salaries and fringes, including an anticipated 2.82% state-mandated salary increase.

SOC/POC—Salaries and fringes for Headquarters and Administrative Services Departments (see organizational charts and position and percent effort tables in “Introduction” section).

**Travel**—Transportation, per diem, and lodging.

SOC—Liaison trips to JOI and IODP-MI and travel expenses for the Director and Deputy Directors to attend IO meetings, SAS panel meetings, JOI Alliance meetings, and professional meetings. A portion of trips to Victoria or Balboa for an Administrative Services representative, Victoria port call for the Director, and Balboa/Astoria port calls for a Deputy Director in support of science activities.

POC—One trip to London to coordinate the marine insurance package for the Phase 2 operations and travel expenses for the Director, Deputy Directors, and TAMU safety panel to attend IO meetings, SAS panel meetings, JOI Alliance meetings, and professional meetings. A portion of trips to Victoria or Balboa for an Administrative Services representative, Victoria port call for the Director, and Balboa/Astoria port calls for a Deputy Director in support of platform activities.

**Supplies**—Office and operational supplies.

SOC/POC—General office supplies, electronic media and other computer supplies with an acquisition cost of less than \$1,000, toner cartridges, paper for printers and copiers, conference

supplies, material to print IODP business cards and letterhead, phone books, and miscellaneous supplies (pens, paper, folders, tape, labels, tablets, pencils, etc.).

**Shipping**—Postage, express mail, and freight.

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

**Communication**—Telephone and fax charges.

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

**Contractual Services**—None budgeted.

**Equipment**—None budgeted.

**Other Direct Costs:**

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

SOC—Partial funding for nine professional training courses and seminars (e.g., certification, budget estimating, databases, contracting, national travel conferences, National Council of University Research Administrators, educational institutions conference on payroll, etc.) for selected members of the Administrative Services Department and on-campus software training course registration for three Headquarters Department staff members.

POC—Partial funding for nine professional training courses and seminars (e.g., certification, budget estimating, databases, contracting, national travel conferences, National Council of University Research Administrators, educational institutions conference on payroll, etc.) for selected members of the Administrative Services Department.

**Business Conferences**—Incidental expenses associated with meetings hosted by IODP-USIO Science Services, TAMU.

SOC/POC—Expenses of Program-wide conferences and meetings in or near College Station.

**Software**—Software purchases and upgrades.

SOC/POC—New software purchases and upgrades to existing software applications.

**Insurance**—Annual insurance premiums.

SOC/POC—Program's portion of Director's and Officers' corporate insurance based on the number of officers at IODP-USIO Science Services, TAMRF, when compared to the TAMRF corporate officer total.

**Services**—Expert assistance.

SOC/POC—Visitor parking permits, printing of the annual holiday greeting card, TAMU physical plant services, temporary labor, storage space, CompuServe accounts, library services, and binding.

**Other Computer Services**—Use of off-campus computer services.

SOC—Use of off-campus computer services including computer services used by the Director and Deputy Directors while traveling.

POC—Use of off-campus computer services.

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

SOC/POC—Program’s share of costs for use of FAMIS in conducting the fiscal activities of IODP-USIO Science Services, 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 at office and at external storage facilities.

*Recruiting*—Employee recruitment.

SOC/POC—Local advertisements to fill vacant positions.

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

SOC/POC—Parts replacement and service agreements on business machines (copiers, fax machines, calculators, typewriters, etc.).

*Library*—Books, journals, and other resources.

SOC/POC—Reference books and subscriptions to professional materials (e.g., Small and Small and Disadvantaged Businesses, contractual publications [Federal Acquisition Regulation (FAR) Supplements, Office of Management and Budget (OMB) Circulars, etc.], human resources, etc.) used in the day-to-day departmental operations.

***Administrative Fee***—Fee paid for corporate administration of the Program in lieu of indirect costs, as established by the JOI/TAMRF contract.

SOC/POC—This fee reimburses TAMRF for corporate activities in support of the IODP-USIO Science Services, TAMU, performed by staff who are not direct charged to the Program (i.e., TAMRF staff that 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; university/vendor liaison and payroll preparation and distribution, and advice and guidance provided by TAMRF legal counsel. Use of corporate resources eliminates redundancy and reduces costs to IODP.

# TECHNICAL, ENGINEERING, AND SCIENCE SUPPORT

## Responsibilities

The Technical, Engineering, and Science Support WBE is supported by the Science Operations Department, the Tools and Analytical Services Department, the Information Technology Support Section of the Information Technology and Data Services Department, and the Information Technology and Data Services Manager and Information Services Assistant. The following responsibilities and tasks support the Technical, Engineering, and Science Support WBE.

## Operational Support

- Prepare operational plans with time and cost estimates to achieve the scientific objectives of each IODP-USIO expedition.
- Ensure that necessary drilling and coring equipment is available for shipboard operations.
- Optimize shipboard drilling operations.
- Ensure safe engineering operations.

## Ship Operations

These responsibilities are handled primarily through the ship subcontractor (Overseas Drilling Limited [ODL]):

- Provide crew to operate and maintain vessel.
- Provide meals and accommodations for cruise participants.
- Establish account with port agent for docking/undocking, customs clearances, transportation to/from vessel, resupply and refueling of vessel, and certain demobilization tasks such as arranging for an on-site office and warehouse space.
- Obtain insurance coverage for vessel.
- Obtain ship-to-shore satellite communications (Inmarsat and very small aperture terminal [VSAT]).
- Provide for possible medical evacuations from vessel.

## Science Support

- Select and invite Co-Chief Scientists for each scheduled expedition.
- Complete staffing of the Science Support Section.
- Provide science support, including expedition planning, execution, and postexpedition assessment.
- Lead IODP-USIO expedition project management.
- In consultation with Co-Chief Scientists, select and invite members of the scientific party for each IODP-USIO expedition.
- Provide planning support for IODP Phase 2 expeditions.

## **Technical Support**

- Provide shipboard technical support, including expedition planning, execution, and postexpedition assessment.
- Ensure that technical staff receives appropriate training in laboratory safety and basic safety and survival skills.
- Ensure that the shipboard laboratories are operational and stocked with adequate supplies.
- Ensure safe laboratory operations.
- Work with members of the expedition scientific parties wishing to conduct special analyses or experiments to ensure that appropriate space, services, and supplies are available.

## **Materials Support**

- Provide expedition logistical support, including procurement of equipment and supplies.
- Maintain responsibility for inventory control and shipping and receiving.
- Operate and maintain IODP-USIO shore-based warehouse and shop facilities.
- Coordinate with the vessel's agents to ensure efficient handling of shipments to and from the vessel and other IODP-USIO port call activities.

## **Information Technology Support**

- Provide IT services to support riserless drilling operations aboard the IODP-USIO Phase 1 vessel as well as in the IODP-USIO Science Services, TAMU, office and repositories.
- Ensure that desktop IT resources, printers, and plotters are properly represented in inventory and in good working order.
- Review the IT security situation and maintains a forward compliance with guidelines as set forth by the TAMU College of Geosciences and other applicable regulatory agencies; annually assess and review physical and network security; and install new physical security devices at the IODP-USIO Science Services, TAMU facility, as required.
- Seek opportunities for greater IT industry involvement through user group participation, conferences, and trade shows.

## **Analytical Services**

- Establish and maintain infrastructure for an analytical service center to meet the science and technology needs of the IODP scientific ocean drilling community.
- Manage planning activities of and maintain implementation controls on current and potential future enhancement activities for the shipboard and shore-based laboratories and analytical services.
- Liaise with the JOI Alliance, the SAS, the IODP-MI, the other IOs, and other stakeholders to exchange relevant laboratory information for short- and long-term planning.
- Maintain an active application development environment to support current and future IODP-USIO custom applications for data capture, transfer, access, and analysis as requested by the scientific community and specified by scientific and technical staff and other experts.
- Coordinate laboratory teams that are responsible for collecting user input and creating specifications for and monitoring implementation of analytical systems upgrades and developments.

- Create, adopt, and maintain inventory information, specifications, and technical documentation associated with analytical systems and procedures.
- Maintain, upgrade, and operate shore-based laboratories in accordance with the goals of the IODP science advisory panels.
- Take part in maintenance and coordinate major repairs of shipboard analytical systems and provide interface with vendors.
- Support shipboard laboratory operations with sailing staff as well as staff on shore.

## **Engineering Services**

- Provide ongoing support of, and improvements to, drilling and coring systems, complex completions, downhole tools, and vessel and surface systems.
- Identify and prioritize future development projects.
- Maintain project controls on engineering enhancements.
- Maintain technical documentation associated with coring and drilling equipment, legacy completions, and technology.
- Implement design improvements and adopt new technology to coring and drilling operations.
- Provide engineering support for platform services.
- Provide support for shore-based downhole engineering tool facility to support and test coring, downhole tools, and platform equipment.
- Participate in engineering meetings with the other IOs, IODP-MI, and the SAS, as appropriate.
- Identify and implement tool enhancements required to meet the increasing engineering needs of the IODP scientific ocean drilling community.

Specific activities that will be pursued by Analytical and Engineering Services during the first four months of FY06 are as follows:

### ***Analytical Services***

***IODP Liaison and Coordination***—Work with the SAS, the IODP-MI office, and JOI Alliance teams to coordinate the development of analytical capabilities, implementation of new technologies, and development of standards and standardized measurements across the IOs and within the USIO.

***Laboratory Information System***—Continue to integrate and make accessible all information related to IODP-USIO laboratories. Inventories of all laboratory systems and associated equipment and documentation of these systems will be maintained in the current Oracle database and linked to the relevant science data. Descriptions of ongoing enhancement activities will be made easily available to IODP management entities. The Analytical Services Section will coordinate the creation, revision, and version control of documentation for existing and future analytical systems and will monitor and respond to the labhelp e-mail account.

***Expedition Operational Support***—Sail staff on each expedition to support shipboard laboratory activities.

***Custom Applications***—Maintain all existing custom software applications and act as their steward. Focus on the enhancement of the following major custom applications to ensure the continued provision of state-of-the-art performance of the riserless drillship laboratories. Some of these efforts will continue through FY06 and into FY07. Note: Only the time, effort, and costs associated with these activities through the first quarter of FY06 will be charged to the contract.

1. Continue building the next-generation visual core description (VCD), digital database, and data capture tools. A foundation will be built in FY05 (data model, proof of concept, core image visualization, and annotation tool). In FY06, the main data entry application will be completed.
2. Build a depth mapping application to replace and broaden the scope and capabilities of stratigraphic correlation applications. This will be accomplished by combining applications, updating the Janus data model to accommodate any type of depth scale mapping, and providing a more flexible graphical data representation.
3. Create an enhanced multiplatform generic uploader application to allow quick configuration of data transfer utilities for new, modified, or enhanced data capture modules and database entities and to decrease error rates in data transfer activities.
4. Collaborate with the Engineering Services Section to create a data model for rig instrumentation data, applications to transfer rig instrumentation data into the Janus database and customizable queries to retrieve and use the data.
5. Continue the migration of Core/Janus applications (e.g., Operations, Corelog, Sampling, Curation) into enhanced multiplatform applications.

### ***Engineering Services***

***Expedition Engineering Support***—Sail staff on each expedition to support operations in achieving science objectives where engineering support is required (i.e., installing borehole observatories, running special drilling or completion equipment, supporting heavy downhole tool usage, etc.) and/or to test new or upgraded downhole tools or rig instrumentation equipment.

***Engineering Systems Support***—Provide engineering support for science expeditions, downhole instrumentation, in situ measurement tools, coring and drilling tools, rig instrumentation, and special rig equipment. On shore, support a number of coring systems, downhole measurement and sampling tools, and rig instrumentation with spare parts, repair, testing, and calibration. Also, serve as the technical liaison for integrating third-party downhole technology for use aboard the IODP-USIO riserless vessel.

***Engineering Information Management***—Provide the centralized documentation control of all downhole tools, drilling and coring hardware, and rig instrumentation equipment. This includes drawings, schematics, specifications, assembly manuals, operations manuals, and calibration records. Also, maintain confidential information provided by vendors.

***Shore-based Downhole Tool-Support Facility***—Maintain and manage the shore-based laboratory, test facilities, associated instruments, and support structure to provide reliable calibrated tools for use on the riserless vessel.

Specific engineering systems enhancements are as follows:

***Cementing Program Project Management Plan*** (\$5,000)—The Expedition 301 Review Committee (REVCOM) recommended that the USIO should incorporate a cementing program project management plan in the next Annual Program Plan and that all IOs need to ensure that appropriate cementing expertise is used when identified in the planning, integration, compatibility, and review process.

A cementing program project management plan will be developed for future use when cementing is required to assess the cementing requirements, determine the resources needed to meet the requirements, and evaluate the probability of success. As a basis for deciding future IODP

cementing requirements, an oil services company or independent consultant will be contracted to prepare a cementing program based on the known formation properties. As a first step, a consultant will be engaged to address the following and provide guidance: (1) determining a methodology for evaluating the known formation properties, (2) making assumptions about unknown formation properties, (3) assessing risks associated with the assumptions, and (4) identifying costs and risks associated with options.

This study is the first step in building experience and knowledge needed for successful cementing completions. Coupled with routine cement bond logs to determine cement seal quality, this will help IODP provide reliable cementing and sealing solutions for borehole observatories.

***Standard Equipment for Sealing between Casing Strings*** (\$60,000)—The Expedition 301 REVCOM recommended that the USIO should incorporate a design plan for casing seals in its next Annual Program Plan.

The lesson learned from Expedition 301 was that some formations are too permeable to seal using conventional cementing practices. When confronted with this situation, a standby casing sealing system needs to be available on the ship for sealing between casing sizes.

The requirements for this system are that it can be deployed with short notice, and it can seal effectively on the inner diameter of the outer casing (no seal bore required). A prototype seal for a 10-3/4 inch casing to 16 inch casing will be designed, fabricated, and tested.

#### **Engineering Development Projects:**

***Pulsed Telemetry Module*** (\$175,000)—The purpose of this project is to provide real-time, at-the-bit drilling dynamics data to the driller. This will be done by integrating a commercial, retrievable pulsed telemetry module (PTM) with IODP's existing Measurement While Drilling (MWD) tool. The MWD tool consists of the Drilling Sensor Sub (DSS), which records drilling dynamics data and the Core Barrel Retrievable Memory Module (CB-RMM), which is located on top of the core barrel and receives the data transmitted from the DSS. Since the CB-RMM is retrieved along with the core barrel, the current capabilities limit access to the data until the data is downloaded on the surface. This means that the data can only be viewed and analyzed in near-time (in ~1 hr) after the hole interval is drilled or cored.

With the integration of the PTM, weight on bit (WOB), torque on bit (TOB), annulus pressure, and temperature will be transmitted in real time to the surface during coring operations. These data will be instantly displayed on the Rig Instrumentation System (RIS) monitor in the driller's cabin, allowing on-the-spot adjustments to improve core recovery. This project is a joint effort between IODP-USIO Science Services, TAMU, and Lamont-Doherty Earth Observatory (LDEO) of Columbia University. The TAMU budget will deal with the purchase of the PTM system and custom bottom-hole assembly (BHA) components and the LDEO budget will deal with the adaptation of the PTM pulser unit with the CB-RMM.

***Common Bottom-Hole Assembly*** (\$250,000)—The purpose of this project is to develop a common BHA to replace the two ODP BHAs. The current practice uses the rotary core barrel (RCB) BHA for recovering core samples in medium to hard formations and the APC/extended core barrel (XCB) BHA for soft to medium formations. The APC/XCB BHA can also be configured to run the motor-driven core barrel (MDCB) for use in hard, fractured rock, although it is seldom used. The four coring systems each have different core sizes (APC = 66 mm, XCB = 60 mm, MDCB = 57 mm, RCB = 59 mm).

Operational time required to round-trip pipe when formations become too hard for APC/XCB coring can take up to a day in deep water. A common BHA will save operational time as well as long-term costs; however, the biggest impact of a common BHA will be the cost savings associated with a simplified inventory.

Prior to the design, a review of the current system’s strengths and weaknesses will be made and multiple concepts will be developed for consideration. Costs and implementation strategies of the different concepts will be compared and a final design selected. A prototype of the common BHA will be acquired and qualified with land tests prior to deployment.

## TECHNICAL, ENGINEERING, AND SCIENCE SUPPORT BUDGET

Expense Category	SOC	POC	Total
Salaries and Fringes	1,469,070	598,876	2,067,946
Travel	91,920	4,299	96,219
Supplies	56,704	14,034	70,738
Shipping	95,831	45,144	140,975
Communication	30,152	51,112	81,264
Contractual Services	0	0	0
Equipment	593,806	997	594,803
Other Direct Costs	782,766	7,537,454	8,320,220
Day Rate	0	6,098,708	6,098,708
Fuel	0	939,900	939,900
Per Diem	0	132,828	132,828
Port Calls	0	188,271	188,271
Insurance	0	158,112	158,112
Other	782,766	19,635	802,401
Relocation	20,625	1,875	22,500
Training	164,887	0	164,887
Business Conferences	6,084	238	6,322
Software	405,469	407	405,876
Insurance	343	343	686
Services	62,371	11,712	74,083
Other Computing Services	358	0	358
Furniture	3,005	515	3,520
Recruiting	13,195	3,565	16,760
Maintenance and Repair	102,944	643	103,587
Library	3,485	337	3,822
<b>Subtotal Technical, Engineering, and Science Support</b>	<b>3,120,249</b>	<b>8,251,916</b>	<b>11,372,165</b>
<b>Subtotal Engineering Development</b>	<b>425,000</b>	<b>0</b>	<b>425,000</b>
Total Direct Costs	3,545,249	8,251,916	11,797,165
Indirect Costs	0	0	0
<b>Total Technical, Engineering, and Science Support</b>	<b>3,545,249</b>	<b>8,251,916</b>	<b>11,797,165</b>

Funds for this WBE are budgeted as follows:

**Salaries and Fringes**—Salaries, fringes, and sea pay, including an anticipated 2.82% state-mandated salary increase.

**SOC/POC**—Salaries and fringes for Science Operations and Tools and Analytical Services (TAS) employees and Information Technology Support Section employees, including the Manager and the Information Services Assistant of the Information Technology and Data

Services Department (ITDSD) (see organizational charts and position and percent effort table in the “Introduction” section).

**Travel**—Transportation, per diem, and lodging.

SOC—Professional meetings, meetings with oil and gas vendors in Houston, technical support and service calls to West Coast Repository (WCR) and Gulf Coast Repository (GCR), SAS Panel meetings, IODP-MI and IO data management and analytical systems coordination meetings, and JOI Alliance team meetings. Travel expenses for staff that will support portcall activities and sail on Expedition 312.

POC—Travel expenses for staff that will support portcall activities and sail on Expedition 312.

**Supplies**—Office and operational supplies.

SOC—General office supplies; electronic media and other computer supplies with an acquisition cost of less than \$1,000; printer and copier supplies; paper; supplies, expendables, and small hardware necessary for continued operations and maintenance of IT resources; logistic and shipping supplies for Expedition, and last-minute supplies for Expedition 312 (the majority of the supplies for this expedition are budgeted in FY05).

POC—Last-minute office and operational supplies, logistic, and shipping supplies for Expeditions 312 (the majority of the supplies for these expeditions are budgeted in FY05), and office supplies for the temporary office at the demobilization port.

**Shipping**—Postage, express mail, and freight.

SOC—Postage for regular correspondence and small packages and shipping from Expedition 311 and for Expeditions 312. Shipping costs are high in anticipation of shipping large quantities of frozen (dry ice packed) microbiological samples from Expedition 311.

POC—Postage for regular correspondence and small packages and shipping from Expedition 311 and for Expedition 312.

**Communication**—Telephone and fax charges. VSAT and limited Inmarsat communication between shipboard participants and shore.

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

POC—Standard telephone line, long distance, and fax charges. VSAT and Inmarsat communications costs for the operations portion of the 123 days the riserless vessel is under contract in FY06, less the operations portion of the \$3,000/month payment from the ship subcontractor for its share of VSAT service costs.

**Equipment**—Procurement, upgrading, or fabrication of equipment with an acquisition cost of over \$5,000 plus those items as defined by TAMRF policy.

SOC—A portion of the cost of replacement of two existing copiers for the Tools and Analytical Services Department (one desktop and one large copier for departmental use). Development of a standard design for sealing between casing sizes, which will include fabrication of a prototype for a 10-3/4 inch × 16 inch casing (per REVCOM recommendation). IT equipment for the shore-based facility: networking equipment that includes network data storage (disk drives ~\$130,000), wireless access points, hubs, and switches (~\$95,000), and gigabit network servers (~\$30,000); file, print, and applications servers (NetWare and Unix servers ~\$50,000); high-density tape backup system (~\$40,000); uninterruptible power supply (~\$30,000); two air conditioning units

(~\$15,000); workstations, printers, video conferencing peripherals to expand video conferencing into other conference rooms, and various other peripheral equipment.

POC—A portion of the cost for replacement of two existing copiers for the Tools and Analytical Services Department (one desktop and one large copier for departmental use).

***Other Direct Costs:***

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

SOC—None budgeted.

POC—Contractor management of the vessel, hull and machinery insurance required by the contract, waste disposal, drilling contractor travel to and from port, maintenance and spares for contractor equipment, and staffing the vessel, including the marine crew, drilling personnel, and catering personnel. The day rate varies according to the operational mode of the vessel, which is generally operating, standing by, or cruising. 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). A cumulative change in the CPI-U and ECI (since the last increase) equal to or exceeding 2% triggers an increase or decrease in the day rates. The adjustment takes effect at the beginning of the month following the increase or decrease and cannot occur more frequently than every 6 months.

Amounts indicated are based on the total scheduled days of IODP-USIO Phase 1 operations at the adjusted day rates for operating (\$69,102.94), cruising (\$68,073.86), and standby (\$67,044.77) through the end of operations on 29 December 2005. An estimated increase of 2.26% is expected to take effect 1 October 2005, based on the projected movement of the CPI-U and the ECI for privately owned companies in the service industries. Costs are based on 55 days at the operating rate, 21 days at the cruising rate, and 12 days at the standby rate.

*Fuel and Lubricants*—Fuel for the riserless vessel.

SOC—None budgeted.

POC—Purchase of 1200 metric tons in Victoria at an estimated price of \$650/metric ton and 1,200 metric tons in Balboa at an estimated price of \$650/metric ton, less the portion required for demobilization period. The amount of fuel purchased depends on the amount of fuel consumed during the expedition and the price of fuel at the port call location. Due to budgetary constraints, a policy of purchasing only enough fuel to maintain the minimum safety level has been adopted when prices are high.

*Per Diem*—Shipboard catering.

SOC—None budgeted.

POC—Catering costs for 50 participants per expedition at a rate of \$27.34/person/day, lab stack cleaning costs at \$14.00/day, and a fixed charged of \$325 per port call for extra meals served at the two full port calls. Per diem provides room and board for the IODP-USIO Science Services, TAMU, crew and scientists sailing on each expedition.

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

SOC—None budgeted.

POC—Vessel agent's expenses and subcontractor freight associated with resupplying the riserless vessel and loading/unloading activities required by operations for one 5-day port call in

Victoria, one 2-day port call in Balboa, one 4-day port call in Astoria, and a 1-day port call in Galveston prior to beginning demobilization. Funds are also budgeted for hotel and per diem charges associated with two crew changes by the vessel subcontractor.

*Insurance*—Annual insurance premiums.

SOC—Annual insurance premiums for IODP-USIO Science Services, TAMU, vehicles.

POC—Annual insurance premiums for coverage associated with the operation of the vessel as described in Appendix I. Amount budgeted is based on the quote received from the insurance underwriter for four additional months of coverage in FY05 and is for the period beginning 1 October 2005 and ending 31 January 2006. Based on 88 days (72%) of the 123 total days of coverage being scheduled as operations.

*Relocation*—Relocation costs for new employees.

SOC/POC—Relocation costs for new employees.

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

SOC—Data management, IT technical, and management training for staff.

POC—None budgeted.

*Business Conferences*—Incidental expenses associated with meetings hosted by IODP-USIO Science Services, TAMU.

SOC—Expenses for first postcruise meetings, liaison meetings, refreshments provided for various business meetings, and catering services occasionally required for on-site training and professional consultant services.

POC—Incidental expenses associated with liaison meetings hosted at IODP-USIO Science Services, TAMU.

*Software*—Software purchases and upgrades.

SOC—Application development and data visualization toolkit; software subscriptions, volume licensing agreements, and concurrent usage software agreements used in support of continuing activities and systems maintenance; transfer of Oracle database licenses to new servers under new licensing agreements (~\$80,000); and computer-based training and other software as required.

POC—None budgeted.

*Services*—Expert assistance.

SOC—Boat and helicopter transfer of personnel and material to the *JOIDES Resolution*, annual physical examinations for seagoing personnel, TAMU Physical Plant services, Canon copier services, external copying and printing services, safe deposit box rentals, and IT consulting services. Also includes hiring an oil services company to provide a plan for a comprehensive cementing program (per Expedition 301 REVCOM recommendation).

POC—Medical evacuations and miscellaneous charges payable to the ship contractor, annual physical examinations for seagoing personnel, TAMU Physical Plant services, Canon copier services, and external copying.

*Other Computing Services*—Use of off-campus computer services.

SOC—Includes Internet provider services for various staff.

POC—None budgeted.

*Furniture*—Office furniture.

SOC—Office furniture for new staff members and replacements for old, existing general office furniture.

POC—Office furniture for new staff members.

*Recruiting*—Employee recruitment.

SOC/POC—Local advertisements, advertisements in science journals and trade journals, and other costs related to filling vacant positions and recruiting professional staff for Phase 2 operations.

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

SOC—Departmental copier maintenance agreements; maintenance contracts and repairs for hardware and software for IT resources; maintenance and repair of vehicle fleet, equipment in warehouse, overhead cranes, scales, and other loading dock equipment; and repairs for unexpected shipboard equipment failure during Phase 1 operations.

POC—None budgeted.

*Library*—Books, journals, and other resources.

SOC/POC—Industry publications, books, and documentation materials required for reference, including subscriptions to professional journals.

### **Engineering and Development:**

*Equipment*—Procurement, upgrading, or fabrication of equipment with an acquisition cost of over \$5,000 plus those items as defined by TAMRF policy.

SOC—Purchase and integration of a commercial PTM with the DSS/CB-RMM MWD system; development of a single BHA for the APC, XCB, MDCB, and RCB coring systems.

# CORE CURATION

## RESPONSIBILITIES

The Curation Section of the Information Technology and Data Services Department conducts the following tasks in support of the Core Curation WBE.

- Provide services in support of drilling program core sampling, analysis, and education.
- Conduct all responsibilities associated with curation of the core collection.
- Provide planning and implementation strategies for core sampling and curation. Work with other IOs, the SAS, and IODP-MI to develop a policy for IODP-USIO curation. Plan sample and curation strategies for upcoming expeditions and review all shipboard and moratorium-related requests in coordination with each IODP-USIO expedition’s Staff Scientist and Co-Chief Scientists.
- Promote the educational use of the core collection in collaboration with the IODP-USIO, other IOs, and IODP-MI educational personnel by providing materials for display at meetings or museums, as well as conducting tours and facilitating educational activities.
- Begin DSDP/ODP Repository Redistribution Project.

## CORE CURATION BUDGET

Expense Category	SOC	POC	Total
Salaries and Fringes	403,297	0	403,297
Travel	22,751	0	22,751
Supplies	35,700	0	35,700
Shipping	37,600	0	37,600
Communication	4,630	0	4,630
Contractual Services	0	0	0
Equipment	0	0	0
Other Direct Costs	241,282	0	241,282
Training	4,597	0	4,597
Services	218,385	0	218,385
Maintenance and Repair	18,300	0	18,300
<b>Subtotal Core Curation</b>	<b>745,260</b>	<b>0</b>	<b>745,260</b>
<b>Subtotal DSDP/ODP Core Redistribution</b>	<b>506,395</b>	<b>0</b>	<b>506,395</b>
Total Direct Costs	1,251,655	0	1,251,655
Indirect Costs	0	0	0
<b>Total Core Curation</b>	<b>1,251,655</b>	<b>0</b>	<b>1,251,655</b>

Funds for this WBE are budgeted as follows:

**Salaries and Fringes**—Salaries and fringes, including an anticipated 2.82% state-mandated salary increase.

SOC—Salaries and fringes for employees in the Curation Section of Information Technology and Data Services (see organizational chart and position and percent effort table in the “Introduction” section).

POC—None budgeted.

**Travel**—Transportation, per diem, and lodging.

SOC—Professional conferences, site visits to the ECR and WCR, IODP-MI and IO meeting and one JOI Alliance team meeting. Expedition 312 travel for one Curatorial Specialist.

POC—None budgeted.

**Supplies**—Office and operational supplies.

SOC—General office supplies, printer supplies, file folders, general laboratory supplies and specialized supplies for sampling and curatorial tasks. The Gulf Coast Repository (GCR) orders specialized sampling supplies for all USIO repositories (ECR, WCR, GCR); therefore, funds for these supplies are concentrated in the GCR budget. We anticipate extra costs will be incurred for postcruise curation and sampling of hydrate samples from Expedition 311.

POC—None budgeted.

**Shipping**—Postage, express mail, and freight.

SOC—Postage for regular correspondence, shipping samples to scientists, and shipping bulk sampling supplies to the ECR and WCR. We anticipate extra costs will be incurred for postcruise shipping of hydrate samples from Expedition 311.

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:**

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

SOC—Management, technical, or curatorial training for two staff members, and course registration fees for three on-campus IT/software training courses.

POC—None budgeted.

**Services**—Expert assistance.

SOC—Refilling liquid N<sub>2</sub> for frozen hydrate samples; lease and utility costs (power, refrigeration) associated with the operation of the ECR and WCR, including an anticipated 3% increase in rates; student support at WCR, including one half-time student for regular repository activities and 3 months of student support specifically to inventory returned samples and residues to make them available for scientific and educational uses; funds to cover other services provided in support of the WCR through University of California, San Diego; and indirect costs and services associated with charges incurred in support of the ECR through LDEO, such as phone service, shipping, and supplies.

POC—None budgeted.

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

SOC—Repairs and maintenance for storage buildings, refrigeration units, laboratory and office equipment, forklift, and shrink-wrap machine.

POC—None budgeted.

**DSDP/ODP Core Redistribution Project:**

<b>Expense Category</b>	<b>SOC</b>	<b>POC</b>	<b>Total</b>
Salaries and Fringes	0	0	0
Travel	4,000	0	4,000
Supplies	323,038	0	323,038
Shipping	69,320	0	69,320
Communication	0	0	0
Contractual Services	0	0	0
Equipment	70,000	0	70,000
Other Direct Costs	40,037	0	40,037
Services	31,037	0	31,037
Maintenance and Repair	9,000	0	9,000
<b>Total DSDP/ODP Core Redistribution</b>	<b>506,395</b>	<b>0</b>	<b>506,395</b>

Funds in this SOC-funded project are budgeted as follows:

**Salaries and Fringes**—None budgeted.

**Travel**—Transportation, per diem, and lodging.

SOC—GCR Superintendent travel to the ECR and WCR to set up the existing core wrapping machines and to train the ECR and WCR staff in their use.

**Supplies**—Office and laboratory supplies.

SOC—All supplies necessary to pack and prepare for shipment all cores at the GCR, ECR, and WCR. Major supply items such as shrink wrap and shipping pallets have long lead times for ordering and receiving and typically experience significant price increases over time.

**Shipping**—Postage, express mail, and freight.

SOC—Shipping two existing shrink wrap machines from the GCR to the ECR and WCR and shipping the first seven containers of GCR core to the Kochi Core Repository (KCR).

**Communication**—None budgeted.

**Contractual Services**—None budgeted.

**Equipment**—Office, computer, scientific, and drilling equipment.

SOC—One new shrink wrap machine for the GCR, which will allow all three U.S core repositories to pack and ship cores at the same time in order to expedite completion of the project.

**Other Direct Costs:**

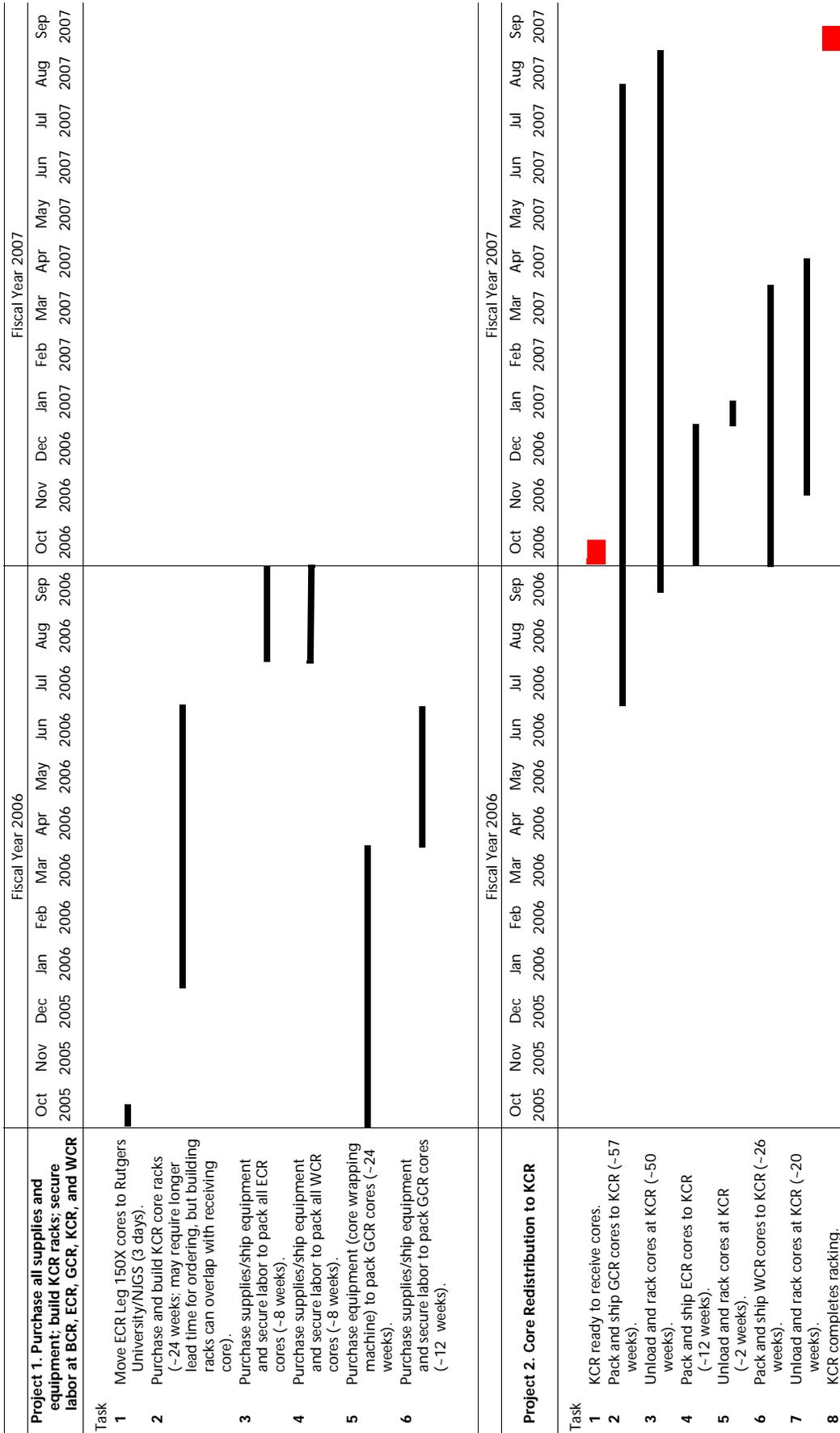
**Services**—Expert assistance.

SOC—Labor to pack cores for shipping, cost for refilling liquid N<sub>2</sub> for frozen hydrate samples. Rental of a van to carry the ODP Leg 150X cores from the ECR to Rutgers University/New Jersey Geological Survey (NJGS).

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

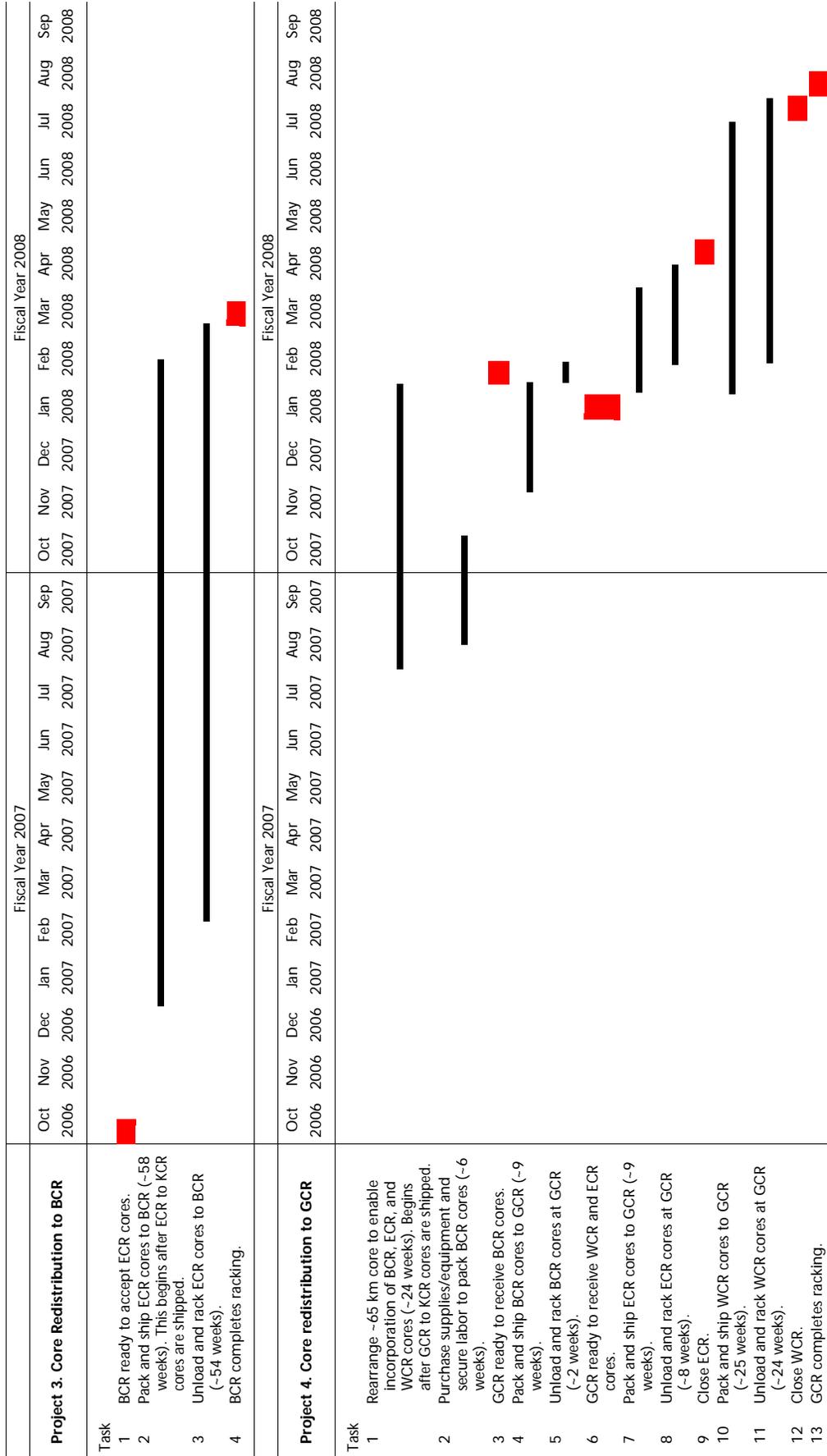
SOC—Service contracts for two existing and one new shrink wrap machine for 2 years.

## Timeline for DSDP/ODP Core Redistribution Project



Continued on next page.

## Timeline for DSDP/ODP Core Redistribution Project (continued)



Note: KCR = Kochi Core Repository, BCR = Bremen Core Repository, ECR = East Coast Repository, GCR = Gulf Coast Repository, WCR = West Coast Repository.

# DATA MANAGEMENT

## RESPONSIBILITIES

The Databases and Archives Section of the Information Technology and Data Services Department conducts the following tasks in support of the Data Management WBE.

- Perform the beginning-of-expedition and end-of-expedition maintenance procedures to set up the Janus database at the start of each expedition and to merge newly acquired expedition data with the master database on shore. Provides general Oracle database maintenance.
- Work with IODP-MI and other IOs (e.g., CDEX and ESO) to coordinate IODP data management activities. Assist IODP-MI with its implementation plan to integrate IODP data from all IOs.
- Perform data verification and checking on the Janus database at the end of IODP-USIO Phase 1 and general maintenance and support between phases of the Program.
- Complete the development and implementation of the asset management system.
- Archive and maintain IODP-USIO riserless vessel data by receiving the data from the vessel and cataloging it, microfilming and/or imaging the data received in paper form, processing seismic and underway data, conducting data validation for quality assurance, and processing data requests.
- Provide photography/imaging support including support on the riserless vessel, maintain microscopes, process photo requests, and provide scanning services.
- Maintain departmental nonscience database applications for IODP-USIO Science Services, TAMU.

## DATA MANAGEMENT BUDGET

Expense Category	SOC	POC	Total
Salaries and Fringes	414,051	0	414,051
Travel	18,168	0	18,168
Supplies	11,000	0	11,000
Shipping	1,000	0	1,000
Communication	0	0	0
Contractual Services	0	0	0
Equipment	3,400	0	3,400
Other Direct Costs	337,278		337,278
Training	33,618	0	33,618
Services	182,460	0	182,460
Software	100,000	0	100,000
Maintenance and Repair	20,000	0	20,000
Library	1,200	0	1,200
Total Direct Costs	784,897	0	784,897
Indirect Costs	0	0	0
<b>Total Data Management</b>	<b>784,897</b>	<b>0</b>	<b>784,897</b>

Funds for this WBE are budgeted as follows:

**Salaries and Fringes**—Salaries, fringes, and sea pay, including an anticipated 2.82% state-mandated salary increase.

SOC—Salary, fringe, and sea pay for employees in the Databases and Archives Section of the Information Technology and Data Services Department (see organizational chart and position and percent effort table in the “Introduction” section).

POC—None budgeted.

**Travel**—Transportation, per diem, and lodging.

SOC—Professional conference, IODP-MI and IO data management meetings, and JOI Alliance team meeting.

POC—None budgeted.

**Supplies**—Office and operational supplies.

SOC—Ink and paper for high-resolution ink jet printers, photographic supplies (film, chemicals) on shore, and digital supplies (CDs, DVDs, tapes) for photographic and data on shore.

POC—None budgeted.

**Shipping**—Postage, express mail, and freight.

SOC—Postage for data and photo requests and to ship paper prime data for microfilming/imaging.

POC—None budgeted.

**Communication**—None budgeted.

**Contractual Services**—None budgeted.

**Equipment**—Procurement, upgrading, or fabrication of equipment.

SOC—Photo equipment parts (panoramic head, tripod and head, ring strobe) and a monitor for color management.

POC—None budgeted.

**Other Direct Costs:**

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

SOC—One professional training class for each employee.

POC—None budgeted.

**Services**—Expert assistance.

SOC—Microfilming/imaging paper prime data, imaging precision depth recorder records from Expedition 312, storage space for paper prime data, and customization of software package for the asset management system.

POC—None budgeted.

**Software**—Software purchases and updates.

SOC—Funds are budgeted for a software package for an asset management system.

POC—None budgeted.

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

SOC—Noncontract photographic maintenance (e.g., camera breakdown) and maintenance of software for the asset management system.

POC—None budgeted.

*Library*—Books, journals, and other resources.

SOC—Technical database and imaging books and journals.

POC—None budgeted.

# PUBLICATIONS

## RESPONSIBILITIES

The Publication Services Department conducts the following tasks in support of the Publications WBE.

### Editing

- Edit all reports and publications handled by IODP-USIO Science Services, TAMU.
- Set/administer IODP style.
- Manage postexpedition publication citations and related statistics.

### Production

- Produce publications (and some reports) handled by IODP-USIO Science Services, TAMU, for print, Web, and/or DVD-ROM.
- Serve as liaison with publishing subcontractors.
- Manage volume distribution and warehousing.

### Graphics

- Produce graphics for all reports and publications handled by IODP-USIO Science Services, TAMU.
- Produce some reports for Web distribution.
- Provide support for the production of IODP-USIO graphics, presentations, papers, and other scientific reports.
- Provide yeoperson support on the riserless drilling vessel.

## PUBLICATIONS BUDGET

Expense Category	SOC	POC	Total
Salaries and Fringes	700,009	0	700,009
Travel	28,175	0	28,175
Supplies	9,800	0	9,800
Shipping	17,810	0	17,810
Communication	4,000	0	4,000
Contractual Services	74,200	0	74,200
Equipment	0	0	0
Other Direct Costs	48,474	0	48,474
Training	7,436	0	7,436
Business Conferences	200	0	200
Software	8,125	0	8,125
Services	27,092	0	27,092
Maintenance and Repair	4,621	0	4,621
Library	1,000	0	1,000
Total Direct Costs	882,468	0	882,468
Indirect Costs	0	0	0
<b>Total Publications</b>	<b>882,468</b>	<b>0</b>	<b>882,468</b>

Funds for this WBE are budgeted as follows:

**Salaries and Wages**—Salary, fringe, and sea pay, including an anticipated 2.82% state-mandated salary increase.

SOC—Salary, fringe, and sea pay for Publication Services employees (see organizational chart and position and percent effort table in the “Introduction” section).

POC—None budgeted.

**Travel**—Transportation, per diem, and lodging.

SOC—Professional conferences or meetings, SAS panel meeting, IODP-MI and IO meetings, and JOI Alliance team meetings. Travel costs are also included to bring one off-site IODP-USIO Science Services, TAMU, employee to College Station to staff first postexpedition meetings and for one off-site employee to participate in an annual report meeting and a budget meeting. In addition, one staff member will attend American Geophysical Union (AGU) conference to represent IODP-USIO Science Services, TAMU, network with the IODP scientific community and staff, and provide updates on publication plans for IODP.

POC—None budgeted.

**Supplies**—Office and operational supplies.

SOC—General office supplies, electronic media and other computer supplies, toner cartridges, and paper for printers and copiers.

POC—None budgeted.

**Shipping**—Postage, express mail, and freight.

SOC—Postage and shipping for regular correspondence, shipping of IODP Phase 1 publication products (DVDs) from the distribution center, and IODP-USIO reports.

POC—None budgeted.

**Communication**—Telephone and fax charges.

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

POC—None budgeted.

**Contractual Services**—Funds for subcontractors to index, print, and distribute Program publications.

SOC—\$74,200 for a subcontractor to index the initial shipboard reports for Expeditions 304–310 for publication in electronic formats (Web and DVD only).

POC—None budgeted.

**Other Direct Costs:**

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

SOC—Technical training courses (e.g., scientific proofreading, software training) members and on-campus software training courses for 10 staff members.

POC—None budgeted.

*Business Conferences*—Incidental expenses associated with meetings hosted by IODP-USIO Science Services, TAMU.

SOC—Meal expenses related to hosting meetings.

POC—None budgeted.

*Software*—Software purchases and upgrades.

SOC—Word processing, page layout, CD- and DVD-authoring, and Web publishing applications.

POC—None budgeted.

*Services*—Expert assistance.

SOC—Volume DVD production, fee for new citations and production of the annual database update on CD-ROM prepared by the American Geological Institute (AGI), printing envelopes, printing the FY05 IODP-USIO Annual Report and the FY06 IODP-USIO Annual Program Plan, microform costs for *Proceedings of the Integrated Ocean Drilling Program* volumes and three Preliminary Report issues, printing mailing labels, and safe deposit box rental fee for off-site storage of microform copies.

POC—None budgeted.

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

SOC—Copier maintenance agreements and annual maintenance of the AGI Citation Database.

POC—None budgeted.

*Library*—Books, journals, and other resources.

SOC—Reference books and subscriptions.

POC—None budgeted.

# APPENDIX I: RECOMMENDED IODP-USIO PROGRAM OF INSURANCE

TAMRF will provide full-service insurance services to the IODP-USIO. This will include insurance policy monitoring, ongoing risk assessments, marine insurance negotiations, and claims settlement. Due to TAMRF's established relationships with the London insurance market and the Program's history of safety unmatched by any other international deep-ocean scientific coring program, we have been able to obtain the most cost-effective premiums, considering market conditions. Market relationships were fostered to educate insurers (i.e., brokers and underwriters) on the specific risks involved with deep-ocean coring and how these risks differ from, and are considerably lower than, those of energy-related drilling operations. As a result of our proactive approach, premiums have averaged less than the market average. TAMRF recommends the program of insurance depicted in the chart below for drilling-peculiar risks and marine employer's liability. The program of insurance reflects changes/upgrades appropriate for IODP-USIO operations, and our understanding of the risks and requirements gained from years of experience. The coverage (i.e., the initial \$200 million umbrella and associated coverage) is based on NSF indemnification under 10 U.S.C. 2354 available to NSF pursuant to Public Law 98-371. Associated coverage includes \$25 million Control of Well, \$1 million Seepage & Pollution Liability, \$2 million Third-Party Property, \$2 million Cargo, \$1 million Charterer's Legal Liability, \$10 million Contractor's Pollution Liability-Gradual, Hull and Machinery insurance based on the appraised value of the drilling vessel, and Removal of Wreck coverage based on a percentage of the vessel's appraised value.<sup>1</sup> Workers' Compensation & Maritime Employer's Liability and Comprehensive General & Automobile Liability coverage are set at required limits. The umbrella policy provides additional coverage for Seepage & Pollution Liability, Workers' Compensation & Maritime Employer's Liability, Comprehensive General & Automobile Liability, and Charterer's Legal Liability.

The rationale for each of the coverage limits follows:

- \$25 million Control of Well coverage is being proposed as historically Control of Well claims are large. It is prudent to obtain a high level of coverage when loss is unlikely but could be substantial if a loss occurs.
- \$1 million Seepage and Pollution coverage, which is part of the Control of Well coverage, has proven to be an adequate level of coverage. The \$1 million coverage limit serves as the deductible for the Contractor's Pollution Liability-Gradual.
- Contractor's Pollution Liability-Gradual is proposed at \$10 million compared to the \$50 million coverage limit in ODP as current market forces make obtaining \$50 million in coverage cost prohibitive.
- Third-Party Property and Cargo Coverage have previously been in the amount of \$5 million, which has been excessive. Assessment of risks associated with these coverages indicates that \$2 million is a more appropriate level of coverage, resulting in a one-third reduction in premiums.
- Charterer's Legal Liability is being proposed in the amount of \$1 million compared to \$500,000 in ODP. This is the prudent course of action considering that there is only a slight premium

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<sup>1</sup> Coverage maintained by the vessel owner. Deductible procured by the program, when required by contract provision.

increase for double the coverage. Umbrella coverage is being proposed in the amount of \$200 million, which proved to be an appropriate coverage level throughout ODP.

In addition to the proposed program of insurance, TAMRF will assess specialty risks (i.e., drilling in depths under 1000 ft; drilling above or below the 40° Parallel; and use of specialty tools including hammer drill, mud motors, underreamers, etc.) and procure insurance if the associated risks and cost for the coverage are determined to be the appropriate action in regard to the amount of potential loss the program could incur if insurance is not secured.

<b>Program of Insurance with Government Indemnification</b>	<b>Coverage Limits</b>	<b>Deductible</b>	<b>Estimated Annual Premiums</b>
Control of Well	\$25,000,000	\$50,000	\$72,000
Seepage & Pollution Liability <sup>1</sup>	\$1,000,000	\$50,000	
Third-Party Property	\$2,000,000	\$25,000	\$14,000
Cargo	\$2,000,000	\$25,000	\$17,500
Charterer's Legal Liability	\$1,000,000	\$10,000	\$16,000
Contractor's Pollution Liability-Gradual <sup>2</sup>	\$10,000,000	\$1,000,000	\$55,000
Umbrella	\$200,000,000	Per underlying limits	\$347,000
Workers' Compensation & Maritime Employer's Liability <sup>3</sup>	\$1,000,000	None	\$86,000
Comprehensive General & Automobile Liability <sup>4</sup>	\$1,000,000	None	\$29,000
<b>Total</b>			<b>*\$636,500</b>

<sup>1</sup> Seepage & Pollution coverage and premium included in Control of Well Policy and is covered under the Umbrella.

<sup>2</sup> Deductible is coverage limit for Seepage & Pollution Liability.

<sup>3</sup> Workers' Compensation & Maritime Employer's Liability premium rate is \$3.80 per \$100 of payroll.

<sup>4</sup> Comprehensive General & Automobile Liability premium rate is \$1.28 per \$100 of payroll.

\* FY06 Phase 1 premium estimated at \$219,600.