

**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**

**ANNUAL PROGRAM PLAN
FY07 to IODP-MI**

For Time Period
1 October 2006 to 30 September 2007

**AMOUNT PROPOSED FY07: \$15,244,097 (SOC and POC)
AMOUNT PROPOSED FY07: \$9,856,438 (SOC)
AMOUNT PROPOSED FY07: \$5,387,659 (POC)**

Respectfully Submitted to:
IODP Management International, Inc.



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Cover photograph: Rough seas in the Azores during Expedition 306. Photo by William Crawford

1. INTRODUCTION

1.1. ANNUAL PROGRAM PLAN OVERVIEW

This FY07 Annual Program Plan defines the U.S. Implementing Organization (USIO) scope of work for Integrated Ocean Drilling Program (IODP) activities and deliverables for the FY07 fiscal year. It is based on the current mission forecast and recognizes that the complex nature of IODP operations will require multiyear Annual 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 IODP for the near term (1–2 years).

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 as the USIO.¹ In FY05, JOI established a contract with the IODP central management office (IODP Management International, Inc. [IODP-MI]) for the science operating costs (SOCs) of the USIO, which complements the contract with the U.S. National Science Foundation (NSF) for platform operating costs (POCs). Under guidance from NSF and IODP-MI, a USIO FY07 Annual Program Plan has been developed in consultation with the USIO subcontractors for inclusion in the IODP FY07 Annual Program Plan.

IODP-MI, working together with other implementing organizations (IOs) and with input from IODP funding agencies (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), has provided guidance and instruction to the USIO on the preparation of the USIO contribution to the IODP FY07 Annual Program Plan. The USIO FY07 Annual Program Plan includes a discussion of the goals of the USIO, all responsibilities and deliverables, operational schedules, definitions of projects, the USIO organizational structure for all science operations and platform operations activities, and the relationships with other IODP entities. Also included are the required budgets that incorporate funding allocations from IODP-MI for science operations and funding allocations from NSF for platform operations.

On behalf of the USIO and as outlined in this Annual Program Plan, USIO/TAMRF has contracted with Overseas Drilling Limited (ODL) for the services of a Scientific Ocean Drilling Vessel (SODV), currently called the RV *JOIDES Resolution*, which will be converted for use as the riserless drilling vessel for USIO operations in FY08. In support of the drilling vessel and with the approval of IODP-MI, the USIO will provide the full array of science, operations, logging, engineering, information technology, technical, and publications services; laboratory facilities; core repositories; and administrative services necessary to support IODP. In addition, USIO/LDEO has contracted with Schlumberger for the provision of downhole logging equipment and engineering support beginning in FY08 and beyond.

¹ In this document, references to TAMU include TAMRF.

1.2. USIO BUDGET DEFINITIONS

1.2.1. Lead Agency Guidance: Platform Operating Costs vs. Science Operating Costs

The development of budgets for the USIO FY07 Annual Program Plan required certain assumptions to guide the allocation of costs into POCs and SOCs. The process that was used to define POCs for the USIO was based on a directive from the lead agencies (NSF and MEXT) received on 22 February 2006. The lead agency directive provided POC and SOC definitions for use in the development of this Annual Program Plan.

Annex 1 of the Memorandum between MEXT and NSF concerning cooperation on the IODP provides definitions of what are considered POCs and SOCs. Annex 1 definitions are consistent with the interpretation that costs associated with 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. 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 Annual Program Plan is based on judicious evaluation and interpretation of the lead agency guidelines, while maintaining the flexibility to meet the needs of the USIO and IODP contracts.

1.2.2. IODP-MI Guidance

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, (2) providing funds to produce and distribute the ECORD Science Operator (ESO) Expedition 313 Scientific Prospectus and Preliminary Report, and (3) providing funds for training and coordination activities related to the editing and production of Center for Deep Earth Exploration (CDEX) NanTroSEIZE Drilling Project Stage 1 expedition reports and publications.

1.3. USIO FY07 ACTIVITIES

1.3.1. Summary of FY07 USIO Scope

The scope of activities associated with initial planning and preparation of IODP expeditions will be similar to previous Ocean Drilling Program (ODP) and early IODP activities in terms of deliverables, challenges, and risks. In addition, the USIO will also be carrying out the postexpedition activities related to the early IODP expeditions and ongoing operational tasks (for example, completion of the reports and publications).

1.3.2. Summary of FY07 USIO Deliverables

In the FY07 USIO Annual Program Plan, the USIO is tasked with providing a wide range of services and other deliverables for each work breakdown task element (WBE). The deliverables summarized below for each WBE are described in detail in Chapters 5 through 11.

Management and Administration: The deliverables of the USIO under the Management and Administration task element include the provision of services to manage production and

dissemination of all reports and publications defined by the contract; review programmatic accomplishments from the previous year's activities; implement a health, safety, and environment (HSE) program for the riserless drilling vessel and shore-based facilities; procure and maintain (or otherwise provide) all required insurance; coordinate planning for drilling operations with other IOs; oversee review of scheduled expeditions; and work with IODP-MI, the SAS, and the other IOs to achieve other tasks, as appropriate.

Technical, Engineering, and Science Support: The deliverables of the USIO under the Technical, Engineering, and Science Support task element are diverse and wide ranging, but include the provision of services to conduct science support and operational planning in support of the IODP; establish and maintain the facilities, organization, and staffing necessary for the daily operation and planning of the Program on shore; implement Internet access to IODP, ODP, and Deep Sea Drilling Project (DSDP) databases and publications; and implement expedition logistical support, including procurement of equipment and supplies, inventory control, and shipping and receiving.

The deliverables in the Engineering Development subtask of Technical, Engineering, and Science Support include the execution of two projects in FY07: (1) a Logging-while-Coring Project and (2) a Pulse Telemetry Module Feasibility and Design Study.

Core Curation: The deliverables of the USIO under the Core Curation task element include the provision of services to plan and implement strategies for core sampling and curation in support of previous IODP expeditions and support of core sampling, analysis, and education activities by all IODP stakeholders.

The deliverables of the USIO under the DSDP/ODP Core Redistribution Project subtask of Core Curation include the provision of services to train CDEX personnel for the various curatorial aspects associated with the DSDP/ODP Core Redistribution Project and to pack, ship, and receive and rack DSDP/ODP core materials.

Data Management: The deliverables of the USIO under the Data Management task element include the provision of services to operate and maintain the shore-based data management systems and IODP data archives.

Publications: The deliverables of the USIO under the Publications task element include the provision of services to manage the production, distribution, and warehousing of all reports and publications handled by the USIO.

Logging: Given the delay in the initiation of new operations, there are no deliverables under the Logging task element for FY07. Expedition planning activities for FY08 operations are included in the Technical, Engineering, and Science Support element.

Education and Outreach: The deliverables of the USIO under the Education and Outreach task element include the provision of services to conduct outreach activities focusing on IODP science and technology to facilitate the communication of objectives and science results of IODP to all stakeholders.

1.4. USIO BUDGET SUMMARY

1.4.1. Budget Structure: SOCs and POCs

Following the guidance provided by the IODP lead agencies and IODP-MI, the USIO budget request of \$15,244,097 is partitioned into two programmatic categories: (1) USIO FY07 science operations costs, which are defined as SOCs in a budget that is submitted to IODP-MI for approval, and (2)

USIO FY07 platform operations costs, which are defined as POCs in a budget that will be submitted to NSF for approval. The budget submitted to NSF for approval will also include additional funding in support of maintaining a future U.S. capability for continued scientific ocean drilling in IODP (System Integration Contractor [SIC] costs). Preparation of the USIO FY07 Annual Program Plan is based on the operational schedule defined by the IODP Science Planning Committee (SPC) for U.S. riserless drilling vessel operations during FY08 and beyond, which includes costs associated with the necessary planning and purchase of long-lead time and additional items to support a full schedule of expeditions in FY08.

The cost breakdown for FY07 is a request to IODP-MI for \$9,856,438 in SOC expenses (submitted in this Annual Program Plan to IODP-MI) and a request to NSF for \$5,387,659 in POC expenses for USIO operations. The requested SOC budget is \$299,562 under the IODP-MI budget target for the USIO (\$10,156,000).

1.4.2. FY07 USIO Budget Assumptions and Risks

The requested SOC and POC budgets are based on the assumption of an operations schedule that begins on 1 November 2007 in Singapore. Given the timing of the FY07 Annual Program Plan submission, potential changes in the SODV delivery date, and the uncertainties of the existing FY08–FY09 operations schedule, the USIO has provided our best effort estimate of predicted costs in this plan.

In addition to the assumptions about the operations schedule, there are several other assumptions that were used by the USIO in developing the FY07 budgets. These include:

- (a) The final sequence of expeditions that will be carried out in FY08 will not be decided until August/September 2006; however, the following sequence has been used for the FY07 Annual Program Plan budget planning purposes: Equatorial Pacific 1, NanTroSEIZE 1, NanTroSEIZE 2, Bering Sea, Juan de Fuca.
- (b) The next-generation USIO riserless SODV, following conversion, refurbishment, and acceptance/sea trials (SODV costs) and some additional outfitting (SIC), will be fully mobilized, so no mobilization costs are ascribed to SOC or POC.
- (c) Costs associated with the necessary planning and purchase of long-lead time items and additional items to support a full schedule of expeditions in FY08 are included (including travel costs associated with the first port call).
- (d) Because of the long-lead time required for manufacturing and delivery, circulation obviation retrofit kit (CORK) hardware for the USIO NanTroSEIZE 2 and the Juan de Fuca expedition installations and casing for USIO NanTroSEIZE 1 are included as POC based on current casing costs; however, these costs may continue to escalate (e.g., casing costs have more than tripled since the beginning of 2006).
- (e) The USIO riserless operations schedule, as recommended by the Operations Task Force (OTF), that was used for budgeting is awaiting approval by the SPC; if operation plans change substantially, then the budgets presented herein will change accordingly.

The budget assumptions presented herein, by their very nature, represent significant risks to the USIO FY07 Annual Program Plan, which are being mitigated in various ways in our planning process. The uncertainties related to the schedule of the SODV conversion project will significantly impact the potential costs of the FY07 USIO operations described in this plan. The USIO will continue to work with the SODV project staff to clarify and update our assumptions as more

information becomes available related to actual SODV schedules and plans that impact USIO operations and budgets. The primary risk mitigation strategy employed by USIO managers will be to establish a process of continuous communication among SODV project planners, NSF Program Managers, and IODP-MI to ensure that we all understand the changing circumstances during this period of uncertainty and adjust our plans to compensate appropriately.

1.5. INTER-RELATIONSHIPS WITH OTHER IODP ENTITIES

In support of IODP expeditionary activities in FY07 and beyond, the USIO will provide integrated management, which will help to support coordinated interactions with other IODP entities. In FY07, the primary focus of collaborative activities will be in the areas of operations, core curation, data management, publications, and additional activities in the area of outreach and informal education will be pursued.

The USIO staff members responsible for operations will work with IODP-MI and the OTF to make sure that pre-expeditionary planning proceeds on schedule and that Co-Chief Scientists and the supporting scientific parties are carefully chosen and selected from nominations received from IODP members, taking into account required expertise and member balance indicated in the IODP Memoranda. With respect to the upcoming NanTroSEIZE Stage 1 expeditions in early FY08, this will require significant consultations and collaborative activities with CDEX, including joint planning for integrated expedition management and execution of multiplatform drilling projects; establishing inter-platform quality assurance/quality control (QA/QC) procedures and documentation (where feasible); exchanging technical and engineering information; and identifying opportunities for joint training and staff exchanges, among others.

The USIO information technology and data management staff members will work with the other IOs and IODP-MI on data management priorities and will continue to assist with the development of an informational portal for IODP, currently named the Scientific Earth Drilling Information Service (SEDIS), which will seamlessly link the data sets used by the three IOs by using a discovery metadata portal, and with the implementation of a Sample Materials Curation System (SMCS). There will also be efforts to ensure compatibility in logging data formats and provide consistent interfaces for accessing all data.

The USIO curation responsibilities, which are closely allied with data management, include managing the USIO core collection, participating in the development of sampling strategies for expeditions, supporting shore-based sampling parties, and working with the other IOs, SAS panels, and IODP-MI to define strategies to implement common IODP curation and sampling requirements. Of particular interest in FY07 and future years, the USIO will work with the IOs and IODP-MI to implement a plan to distribute IODP cores to three repositories (Kochi, Japan; Bremen, Germany; and College Station, Texas) based on a geographic partitioning of recovered core: cores from the far Western Pacific and Indian Oceans will go to the Kochi Core Center (KCC); cores from the rest of the Pacific Ocean and waters of the Antarctic, Gulf of Mexico, and Caribbean will go to the Gulf Coast Repository (GCR); and cores from the North and South Atlantic Oceans, Arctic Ocean, and Mediterranean Sea will go to the Bremen Core Repository (BCR). Moreover, the USIO will work with IODP-MI and the IOs to implement a plan for redistributing the DSDP and ODP cores to the three IODP repositories following the same geographic guidelines. Preliminary implementation of the redistribution plan is intended to commence during FY06 (see Section 7.2).

The USIO Publication Services staff members will continue to produce the expedition-related reports and publications for the USIO and ESO and will work with CDEX to provide similar support and assistance for production of DV *CHIKYU* expedition-related reports and publications.

Finally, the USIO will work with the SAS, IODP-MI, Program Member Offices (PMOs), and the other IOs to coordinate and implement planning, training, and development activities related to IODP informal education and outreach. Specifically, the USIO will work with IODP-MI and the IOs to establish informal education and outreach plans for NanTroSEIZE expeditions and will continue to work with the lead agencies and IODP-MI on the development of news releases, media and public awareness, and visual identity activities. In addition, the USIO will work with CDEX to establish bilateral projects related to the public's understanding of research, which may involve shipboard- and museum-based outreach and informal education activities.

2. BUDGET SUMMARY TABLES

2.1. FY07 USIO SOC/POC WBE BUDGET SUMMARY

Element	SOC	POC	Total
Management and Administration	1,781,401	1,256,040	3,037,441
Technical, Engineering, and Science Support	4,337,650	4,131,619	8,469,269
Subtotal Technical, Engineering, and Science Support	4,232,625	4,131,619	8,364,244
Subtotal Engineering Development	105,025	0	105,025
Core Curation	1,899,480	0	1,899,480
Subtotal Core Curation	866,482	0	866,482
Subtotal DSDP/ODP Core Redistribution	1,032,998	0	1,032,998
Data Management	680,829	0	680,829
Publications	766,049	0	766,049
Logging	0	0	0
Education and Outreach	391,028	0	391,028
Grand Total	\$9,856,438	\$5,387,659	\$15,244,097

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	SOC	POC	Total
Total Direct Costs	9,055,460	5,127,334	14,182,794
Indirect Costs and Administrative Fees	800,978	260,325	1,061,303
Grand Total	\$9,856,438	\$5,387,659	\$15,244,097

2.2. FY07 USIO SOC/POC WBE BUDGET DETAIL

Element/Expense Category	SOC	POC	Total
Management and Administration			
Salaries and Fringes	1,190,822	757,726	1,948,548
Travel	114,292	126,364	240,656
Supplies	28,606	23,892	52,498
Shipping	12,361	11,403	23,764
Communication	25,763	21,348	47,111
Contractual Services	7,500	7,500	15,000
Equipment	22,435	19,700	42,135
Other Direct Costs	52,621	33,069	85,690
Total Direct Costs	1,454,400	1,001,002	2,455,402
Modified Total Direct Costs (if applicable)	183,486	47,707	231,193
Indirect Costs or Administrative Fees	327,001	255,038	582,039
Total Management and Administration	\$1,781,401	\$1,256,040	\$3,037,441
Technical, Engineering, and Science Support			
Technical, Engineering, and Science Support			
Salaries and Fringes	1,798,546	653,046	2,451,592
Travel	360,481	40,754	401,235
Supplies	195,988	2,119,424	2,315,412
Shipping	62,645	10,590	73,235
Communication	25,198	3,904	29,102
Contractual Services	297,443	0	297,443
Equipment	328,050	541,000	869,050
Other Direct Costs	845,677	757,614	1,603,291
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
Travel—ODL	0	165,000	165,000
Other	845,677	592,614	1,438,291
Total Technical, Engineering, and Science Support Direct Costs	3,914,028	4,126,332	8,040,360
Modified Total Direct Costs (if applicable)	601,126	9,975	611,101
Indirect Costs or Administrative Fees	318,597	5,287	323,884
Subtotal Technical, Engineering, and Science Support	4,232,625	4,131,619	8,364,244
Engineering Development			
Salaries and Fringes	0	0	0
Travel	5,000	0	5,000
Supplies	5,000	0	5,000
Contractual Services	35,000	0	35,000
Equipment	0	0	0
Other Direct Costs	37,500	0	37,500
Total Engineering Development Direct Costs	82,500	0	82,500
Modified Total Direct Costs (if applicable)	42,500	0	42,500
Indirect Costs or Administrative Fees	22,525	0	22,525
Subtotal Engineering Development	105,025	0	105,025
Total Technical, Engineering, and Science Support	\$4,337,650	\$4,131,619	\$8,469,269

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

FY07 USIO SOC/POC WBE BUDGET DETAIL (CONTINUED)

Element/Expense Category	SOC	POC	Total
Core Curation			
Core Curation			
Salaries and Fringes	537,199	0	537,199
Travel	35,701	0	35,701
Supplies	24,700	0	24,700
Shipping	22,600	0	22,600
Communication	4,660	0	4,660
Contractual Services	0	0	0
Equipment	0	0	0
Other Direct Costs	241,622	0	241,622
Core Curation Total Direct Costs	866,482	0	866,482
Modified Total Direct Costs (if applicable)	0	0	0
Indirect Costs or Administrative Fees	0	0	0
Subtotal Core Curation	866,482	0	866,482
DSDP/ODP Core Redistribution			0
Salaries and Fringes	262,864	0	262,864
Travel	22,500	0	22,500
Supplies	93,263	0	93,263
Shipping	531,171	0	531,171
Other Direct Costs	123,200	0	123,200
DSDP/ODP Core Redistribution Total Direct Costs	1,032,998	0	1,032,998
Modified Total Direct Costs (if applicable)	0	0	0
Indirect Costs or Administrative Fees	0	0	0
Subtotal DSDP/ODP Core Redistribution	1,032,998	0	1,032,998
Total Core Curation	\$1,899,480	\$0	\$1,899,480
Data Management			
Salaries and Fringes	514,468	0	514,468
Travel	33,561	0	33,561
Supplies	6,000	0	6,000
Shipping	1,500	0	1,500
Communication	500	0	500
Contractual Services	0	0	0
Equipment	3,000	0	3,000
Other Direct Costs	74,483	0	74,483
Total Direct Costs	633,512	0	633,512
Modified Total Direct Costs (if applicable)	89,278	0	89,278
Indirect Costs or Administrative Fees	47,317	0	47,317
Total Data Management	\$680,829	\$0	\$680,829

(Continued on next page.)

FY07 USIO SOC/POC WBE BUDGET DETAIL (CONTINUED)

Element/Expense Category	SOC	POC	Total
Publications			
Salaries and Fringes	619,147	0	619,147
Travel	55,538	0	55,538
Supplies	11,549	0	11,549
Shipping	8,622	0	8,622
Communication	8,240	0	8,240
Contractual Services	0	0	0
Equipment	0	0	0
Other Direct Costs	62,953	0	62,953
Total Direct Costs	766,049	0	766,049
Modified Total Direct Costs (if applicable)	0	0	0
Indirect Costs or Administrative Fees	0	0	0
Total Publications	\$766,049	\$0	\$766,049
Logging			
Salaries and Fringes	0	0	0
Travel	0	0	0
Supplies	0	0	0
Shipping	0	0	0
Communication	0	0	0
Contractual Services	0	0	0
Equipment	0	0	0
Other Direct Costs	0	0	0
Total Direct Costs	0	0	0
Modified Total Direct Costs (if applicable)	0	0	0
Indirect Costs or Administrative Fees	0	0	0
Total Logging	\$0	\$0	\$0
Education and Outreach			
Salaries and Fringes	133,091	0	133,091
Travel	53,500	0	53,500
Supplies	7,000	0	7,000
Shipping	4,200	0	4,200
Communication	0	0	0
Contractual Services	107,700	0	107,700
Equipment	0	0	0
Other Direct Costs	0	0	0
Total Direct Costs	305,491	0	305,491
Modified Total Direct Costs (if applicable)	0	0	0
Indirect Costs or Administrative Fees	85,537	0	85,537
Total Education and Outreach	\$391,028	\$0	\$391,028
Grand Total Direct Costs	9,055,460	5,127,334	14,182,794
Grand Total Indirect Costs/Administrative Fee	800,978	260,325	1,061,303
TOTAL FY07 SOC/POC BUDGET	\$9,856,438	\$5,387,659	\$15,244,097

3. ORGANIZATIONAL STRUCTURE

3.1. OVERALL ORGANIZATIONAL STRUCTURE

Since FY04, Joint Oceanographic Institutions, Inc. (JOI) has had 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 as the U.S. Implementing Organization (USIO) for the Integrated Ocean Drilling Program (IODP) (see Figure 1). The USIO carries out all of the deliverables of the USIO for IODP through contracts with the IODP central management office (IODP Management International, Inc. [IODP-MI]) for science operating costs (SOCs) and with the National Science Foundation (NSF) for platform operating costs (POCs). On behalf of the USIO, and as outlined in this Annual Program Plan, TAMRF has contracted with Overseas Drilling Limited (ODL) for the services of the scientific ocean drilling vessel currently called RV *JOIDES Resolution* for use as the USIO riserless drilling vessel. In addition, LDEO has contracted with Schlumberger for the provision of downhole logging equipment and engineering support.

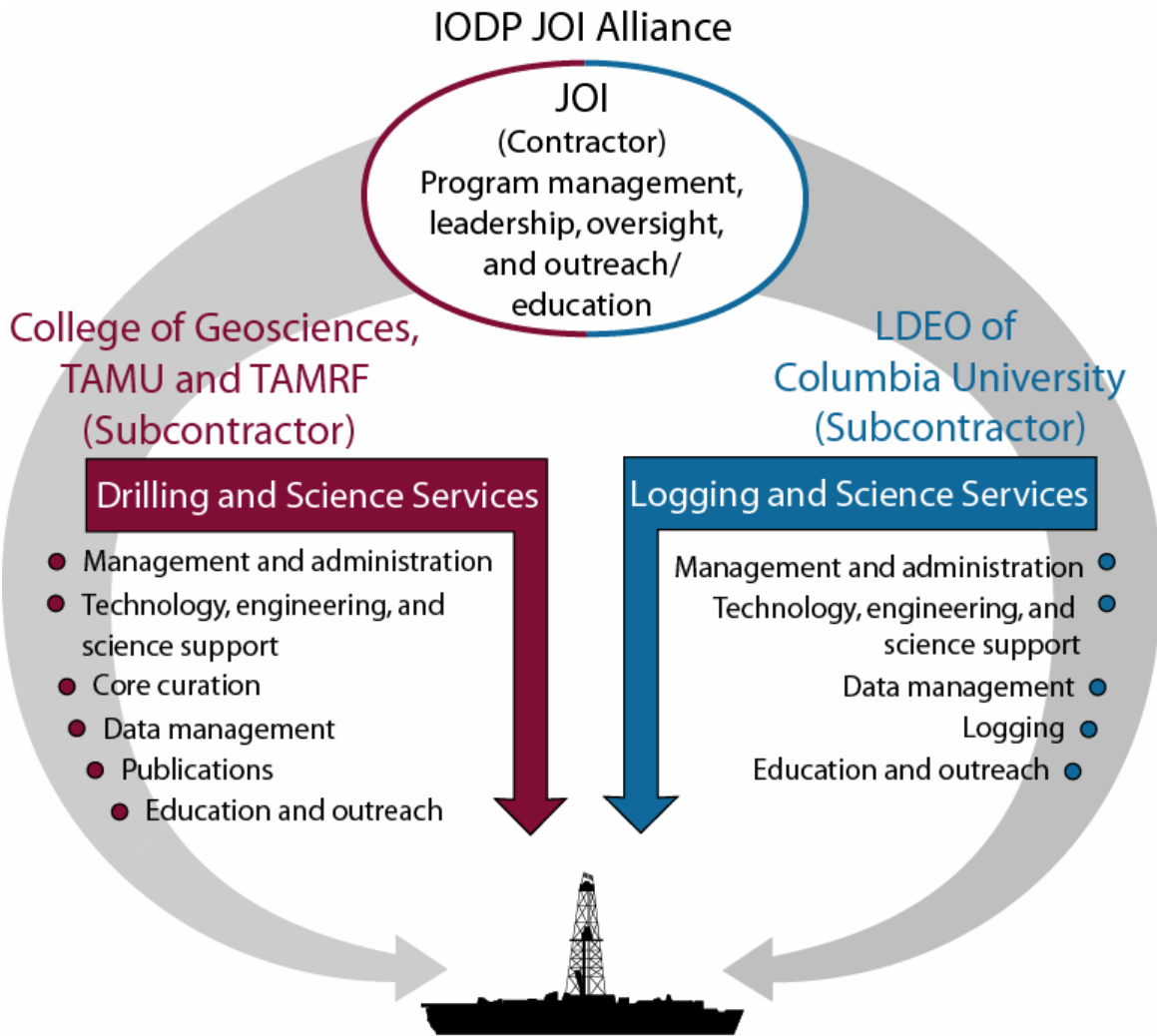


Figure 1. JOI Alliance contractual relationships and partitioning of responsibilities.

The organizational structure employed by the USIO is designed to mirror the seven-Work Breakdown Element (WBE) accounting structure used by IODP and allows us to effectively and efficiently carry out the mission of the USIO. This structure also aligns the organization to efficiently and economically provide the full array of science, operations, logging, engineering, information technology, technical, and publications services; laboratory facilities; core repositories; and administrative services deliverables (see Figure 2). Greater detail on this organizational structure is provided below. See also the positions and percentage effort table (Table 1) for a listing of all staff members, the element to which they are assigned, their estimated percentage of effort as partitioned between SOC and POC, and identification of new positions in FY07.

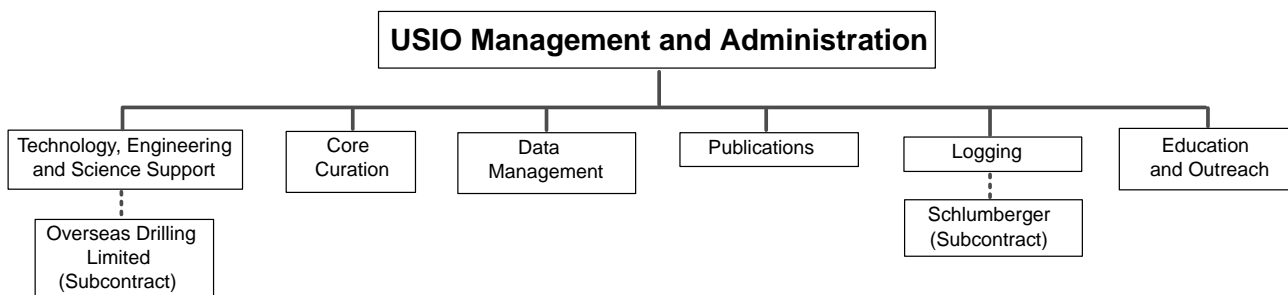


Figure 2. Organizational structure of the USIO.

3.2. DESCRIPTION OF MANAGEMENT AND ADMINISTRATION SERVICES

The USIO provides integrated management that is led by the contractor (JOI) in coordination with the other USIO members (LDEO and TAMU; see Figure 3 for organizational structure). Responsibilities of the USIO include strategic planning, oversight of the USIO Annual Program Plan development, mission delivery, program management, resource allocation and prioritization, and overall science services delivery. Fiscal and contractual administration is provided through each of the three USIO institutions. USIO staff members also support a collaborative working relationship with IODP-MI, the other implementing organizations (IOs), and the IODP science advisory panels.

3.2.1. USIO Prime Contractor

JOI is the prime contractor with ultimate responsibility for all contractual obligations entered into by the USIO. JOI's responsibilities include overseeing and assuring the performance of management, administrative, financial, and information systems that support the U.S. riserless drilling vessel and vessel operations in IODP; management and financial controls to ensure compliance with contract provisions; oversight of the development of an updated Programmatic Environmental Impact Statement (PEIS) for USIO riserless drilling operations; leading long-term planning development for the USIO; and serving as the primary representation of the USIO and the Program as a whole, when appropriate.

3.2.2. USIO 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 the USIO riserless drilling vessel scientific drilling program (see Figure 1). LDEO provides management and contractual oversight for all logging services and planning and implementation of logging operations for USIO operations. TAMU provides management and contractual oversight for services that are directly related to the scientific

and engineering activities necessary to support science cruises and management of cruise-related shore-based functions (data management, core curation, and publications).

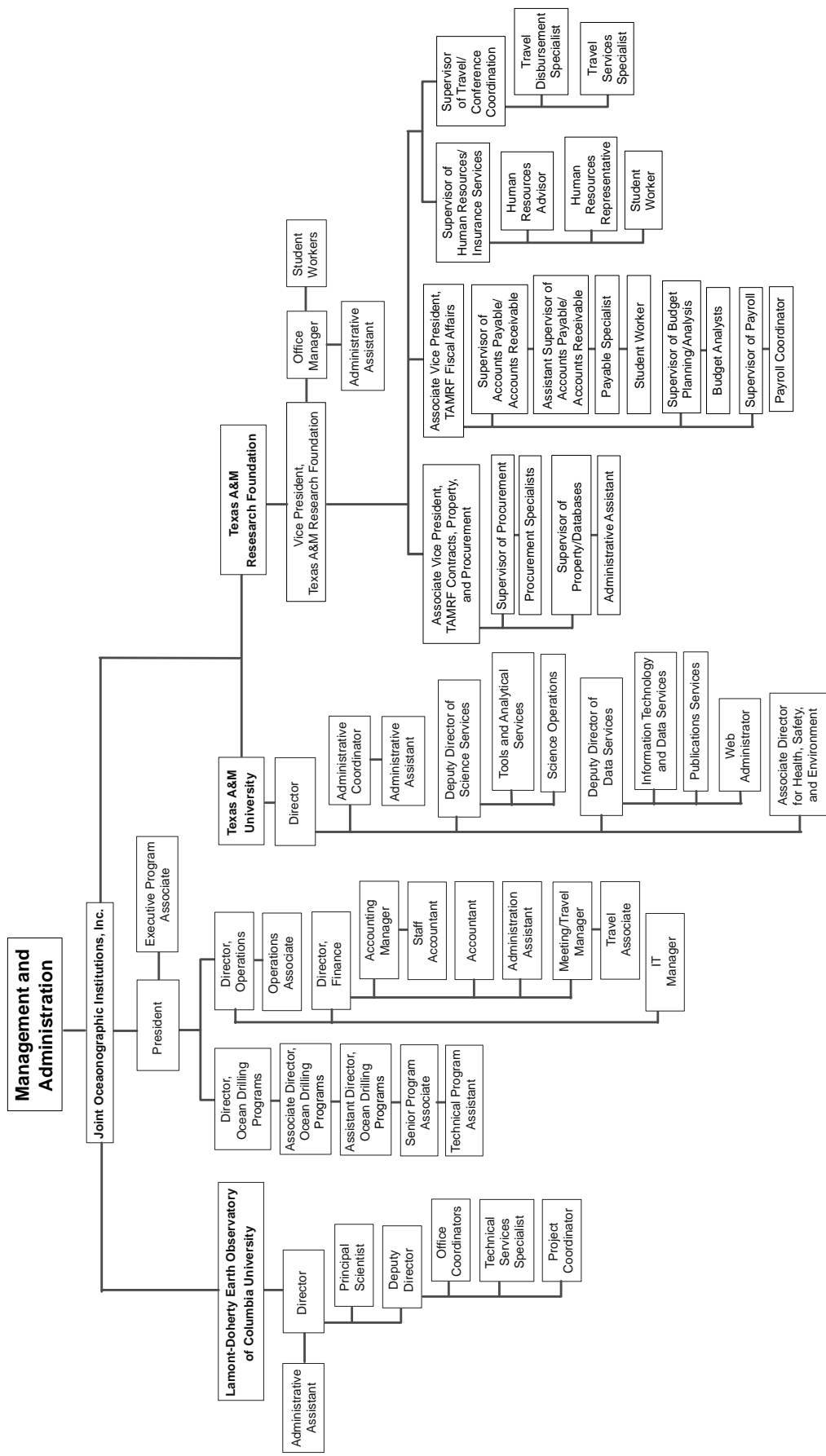


Figure 3. Management and Administration organizational chart.

3.3. DESCRIPTION OF TECHNICAL, ENGINEERING, AND SCIENCE SUPPORT SERVICES

The duties and responsibilities encompassed under the subgroups of Technical, Engineering, and Science Support are described below (see Figure 4 for organizational structure).

3.3.1. Drilling and Science Services

Ship Operations: Provides oversight of the subcontract for the ship subcontractor (ODL) that facilitates provision of vessel crew, meals, and accommodations for cruise participants; handles port agent interactions; obtains insurance coverage; and ensures ship-to-shore communications.

Materials Support: Provides expedition logistical support, including procurement of equipment and supplies.

Technical Support: Provides technical laboratory support, including expedition planning, execution, and postexpedition assessment; ensures safe laboratory operations; provides support for special analyses or experiments on specific expeditions.

Operational Support: Prepares operational plans with time and cost estimates to achieve the scientific objectives of each expedition; optimizes shipboard drilling operations; ensures safe engineering operations.

Science Support: Manages expedition planning and execution and postexpedition assessment and supports and implements science activities at sea.

Engineering Services: Supports shipboard and shore-based downhole engineering systems; supports drilling and coring systems, complex completions, downhole tools, and vessel and surface systems; and carries out engineering development of new and special tools.

Analytical Services: Manages shipboard and shore-based laboratories in accordance with USIO and Science Advisory Structure (SAS) guidelines for data measurements and acquisition.

Information Technology Support: Acquires and supports computer network and computing facilities on the USIO riserless drilling vessel and shore-based operations at TAMU and ensures security of the Information Technology (IT) environment.

3.3.2. Logging and Science Services

Engineering and Technical Services: Provides oversight of major technical subcontracts for logging services providers, supports third-party and specialty tool implementation, carries out engineering development of new and special tools, oversees shipboard and shore-based logging laboratories and equipment, and coordinates logging logistics.

Science Operations: Provides scientific, operational, and technical support for downhole measurement activities, including planning, technical, and operational support.

Information Services: Supports computer network and computing facilities for logging and data processing and analysis.

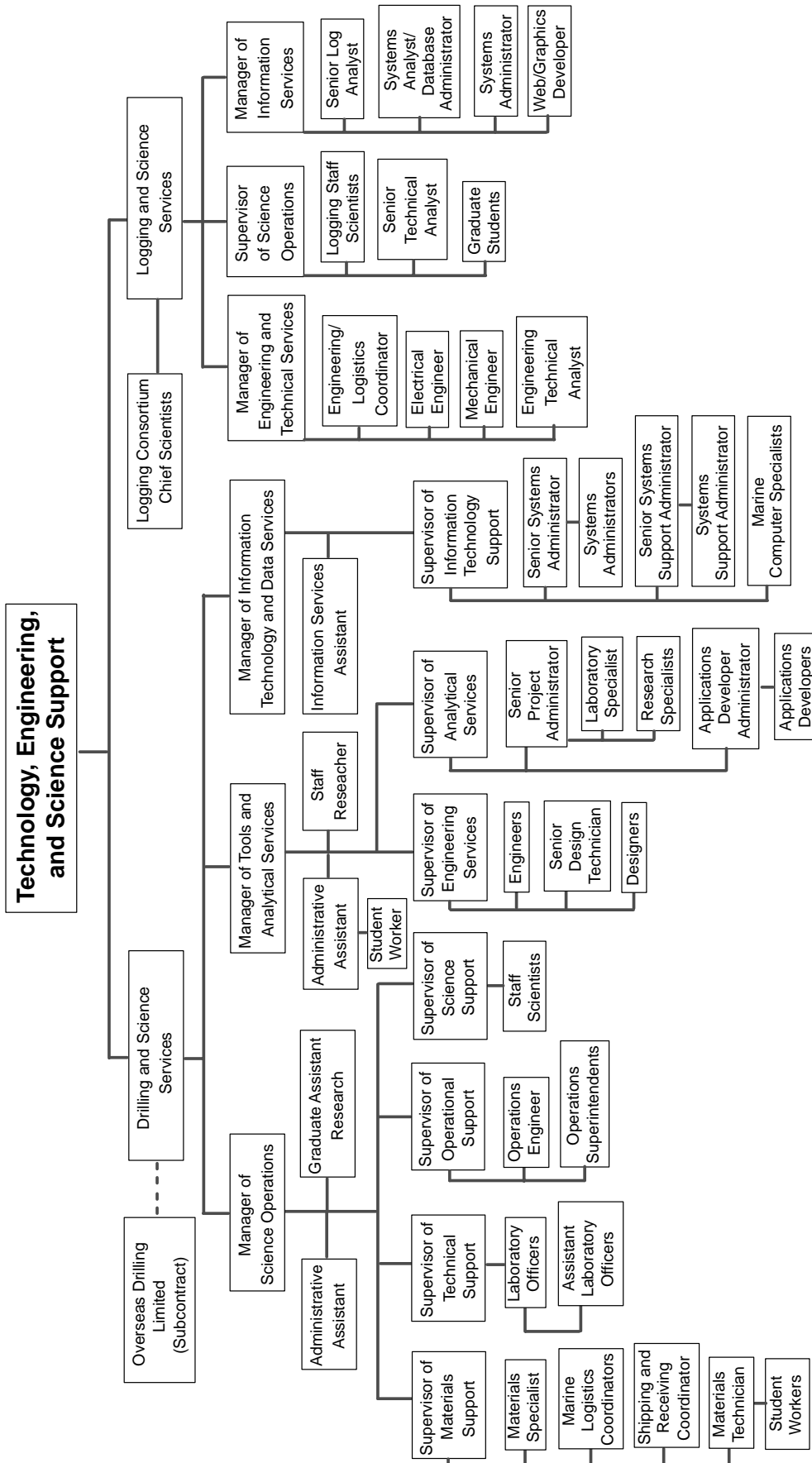
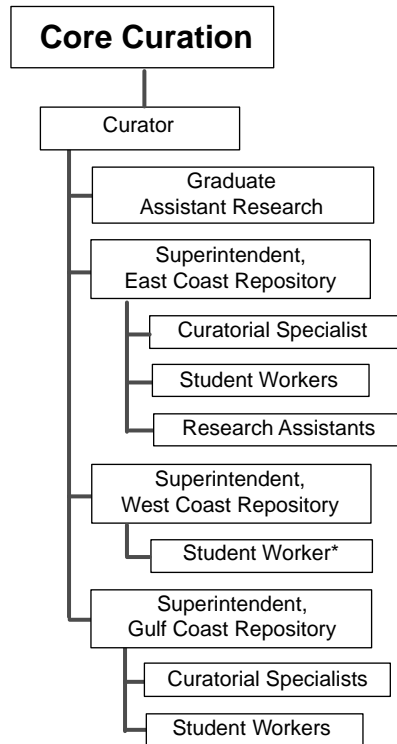


Figure 4. Technology, Engineering, and Science Support organization chart.

3.4. DESCRIPTION OF CORE CURATION SERVICES

The duties and responsibilities encompassed under Core Curation include managing the repository facility; ensuring the core collection is curated according to IODP standards; planning strategies with the expedition Staff Scientists and Co-Chief Scientists for core sampling before, during, and after each expedition; implementing core sampling; and providing outreach related to the collection. The USIO currently manages three repositories where the above duties are carried out: the Gulf Coast Repository (GCR), the East Coast Repository (ECR), and the West Coast Repository (WCR). During FY07, in addition to the routine work described above, the staff at all three repositories will be involved in implementing the Deep Sea Drilling Project (DSDP)/Ocean Drilling Program (ODP) Core Redistribution Project, which will lead to the closure of the ECR and WCR (see Figure 5 for organizational structure).



* Student worker who supports the West Coast Repository is provided through the University of California, San Diego, and is funded under Other Direct Costs: Services.

Figure 5. Core Curation organizational chart.

3.5. DESCRIPTION OF DATA MANAGEMENT SERVICES

The duties and responsibilities encompassed under Data Management include data verification, quality control, and archiving all USIO science data; maintaining an up-to-date and accessible database for legacy data from IODP, ODP, and DSDP; providing nonscience database applications; and providing imaging services related to expedition science during and after each expedition (see Figure 6 for organizational structure).

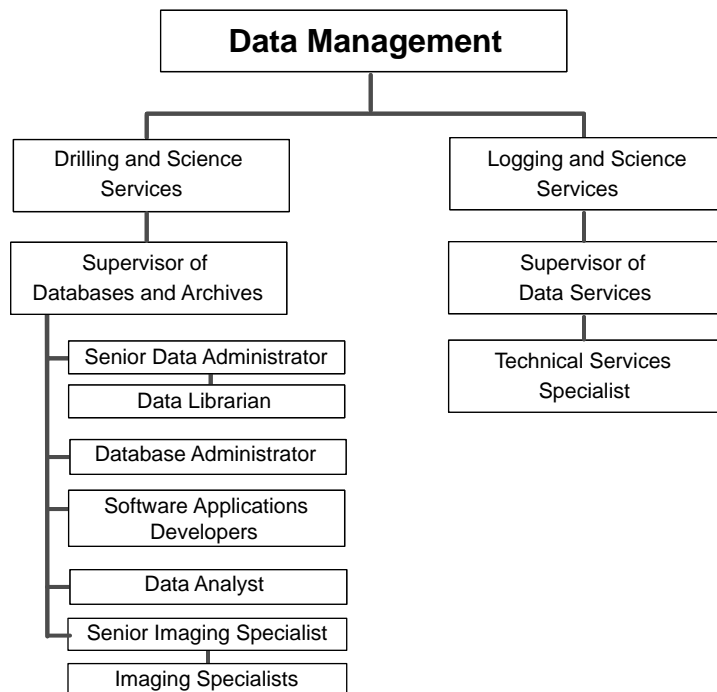
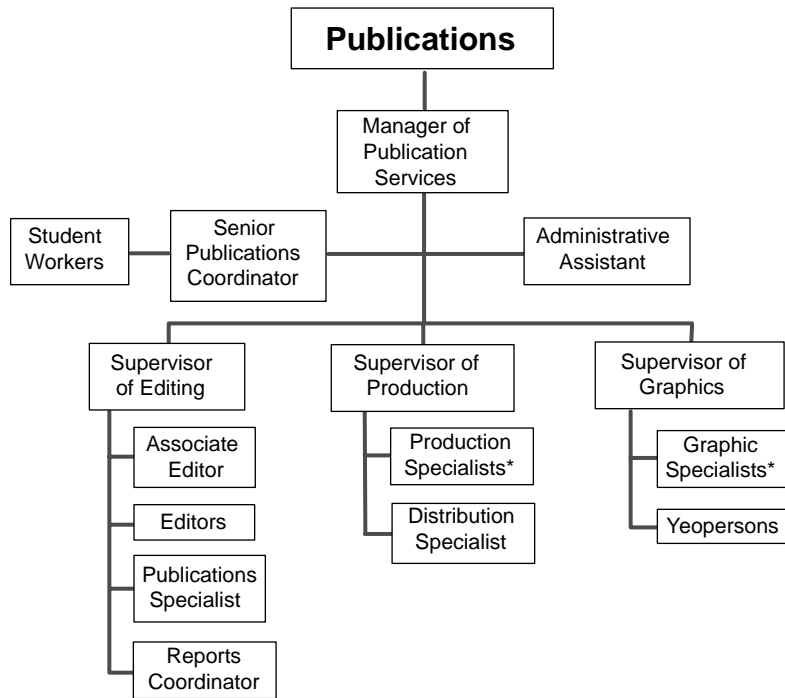


Figure 6. Data Management organizational chart.

3.6. DESCRIPTION OF PUBLICATION SERVICES

The duties and responsibilities encompassed under Publication Services include editing and producing all required reports and scientific publications as defined in the USIO contract with IODP-MI and warehousing and distributing IODP, ODP, and DSDP publications. This includes quarterly and annual reports for the USIO; Scientific Prospectuses and Preliminary Reports for each USIO and European Consortium for Ocean Research Drilling (ECORD) Science Operator (ESO) expedition; and *Proceedings of the Integrated Ocean Drilling Program* volumes for the USIO and ESO expeditions. In FY07, Publication Services also will conduct training and coordination activities related to the FY08 editing and production of Center for Deep Earth Exploration (CDEX) NanTroSEIZE Drilling Project Stage 1 expedition reports and publications (see Figure 7 for organizational structure).

The editorial staff also manages postexpedition publication citations and related statistics for IODP; provides editing, graphics, and production support for the production of USIO graphics, presentations, papers, and other scientific reports; and provides Yeoperson support on each USIO riserless expedition.



* Includes one part-time employee

Figure 7. Publications organizational chart.

3.7. DESCRIPTION OF LOGGING SERVICES

The duties and responsibilities encompassed under Logging Services include the delivery of all shipboard logging services and equipment. Logging services, including downhole tool insurance, are provided through a subcontract to Schlumberger. USIO Logging and Science Services staff listed under the Technical, Engineering, and Science Services task element are responsible for working with Schlumberger to coordinate and implement all services provided under the Logging task element of the WBE (see Figure 8 for organizational structure). Also included in this WBE are materials and logistical support; support of maintenance and enhancement of downhole tools; and support for third-party tool developers in the development of expedition-specific tools.

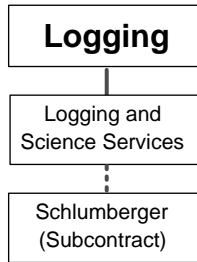


Figure 8. Logging Services organizational chart.

3.8. DESCRIPTION OF EDUCATION AND OUTREACH SERVICES

The duties and responsibilities encompassed under the Education and Outreach Services include facilitation and implementation of USIO outreach. This includes promoting USIO expedition science and promoting IODP in collaboration with IODP-MI and the other IOs and working to promote scientific drilling activities and dissemination of results to a wider general audience (see Figure 9 for organizational structure).

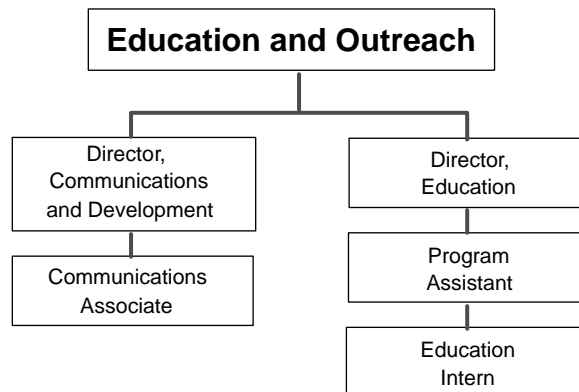


Figure 9. Education and Outreach organizational chart.

Table 1. Positions and percentage efforts.

Employee	USIO Office	Position	WBE Element	% Effort SOC	% Effort POC	Total % Effort
Management and Administration						
Steve Bohlen	JOI	President	M&A	25%	25%	50%
Amy Castner	JOI	Executive Program Associate	M&A	25%	25%	50%
TBN (10/1/06)	JOI	Director, Ocean Drilling Programs	M&A	39%	39%	78%
David Divins	JOI	Associate Director, Ocean Drilling Programs	M&A	25%	25%	50%
TBN (10/1/06)	JOI	Assistant Director, Ocean Drilling Programs	M&A	25%	25%	50%
Margo Morell	JOI	Senior Program Associate	M&A	25%	25%	50%
TBN (10/1/06)	JOI	Technical Program Assistant	M&A	5%	5%	10%
Carol Kokinda	JOI	Director, Operations	(1)			
Strat Caros	JOI	Operations Associate	(1)			
Eldon Hayman	JOI	Director, Finance	(1)			
Winsome Dawes	JOI	Accounting Manager	(1)			
Kaprina Robinson	JOI	Staff Accountant	(1)			
Derek Herr	JOI	Accountant	(1)			
Theresa Strong	JOI	Administration Assistant	(1)			
Julie Farver	JOI	Meeting/Travel Manager	(1)			
Rashaad Elliott	JOI	Travel Associate	(1)			
Robert Wright	JOI	IT Manager	(1)			
Dave Goldberg	LDEO	Director	M&A	29%	8%	37%
Marsha Meyer	LDEO	Administrative Assistant	M&A	46%	12%	58%
Alberto Malinverno	LDEO	Principal Scientist	M&A	13%	3%	16%
Mary Reagan	LDEO	Deputy Director	M&A	44%	11%	55%
Joëlle Gastimbide	LDEO	Office Coordinator	M&A	23%	0%	23%
Janette Thompson	LDEO	Office Coordinator	M&A	8%	0%	8%
Carl Brenner	LDEO	Technical Services Specialist	M&A	21%	5%	26%
Felicia Taylor	LDEO	Project Coordinator	M&A	25%	7%	32%
Jeff Fox	TAMU	Director	M&A	15%	15%	30%
Agatha Moy	TAMU	Administrative Coordinator	M&A	45%	45%	90%
TBN (FY06)	TAMU	Administrative Assistant	M&A	50%	50%	100%
Jack Baldauf	TAMU	Deputy Director of Science Services	M&A	15%	15%	30%
Ann Klaus	TAMU	Deputy Director of Data Services	M&A	75%	0%	75%
Katerina Petronotis	TAMU	Web Administrator	M&A	80%	0%	80%
Doug Johnson	TAMU	Associate Director for Health, Safety and Environment	M&A	40%	40%	80%
Rick McPherson	TAMRF	Vice President, TAMRF	M&A	20%	20%	40%
Linda Norton	TAMRF	Office Manager	M&A	25%	20%	45%
Mariel Atkins	TAMRF	Administrative Assistant	M&A	70%	20%	90%
Megan Casey	TAMRF	Student Worker	M&A	40%	10%	50%
Megan Raica	TAMRF	Student Worker	M&A	40%	10%	50%
Lynn Schulze	TAMRF	Associate Vice President, TAMRF Contracts, Property, and Procurement	M&A	10%	10%	20%
Michelle Strickland	TAMRF	Supervisor of Procurement	M&A	15%	25%	40%
Randy Watkins	TAMRF	Senior Procurement Specialist	M&A	25%	45%	70%

Notes: TBN = to be named. The date by which the position is anticipated to be filled is provided in parentheses. All "FY06" positions are anticipated to be filled prior to the start of FY07. (1) These positions are funded by JOI General and Administrative (G&A) costs (indirect costs) and work on all JOI programs. † = Ship operations and logging services are provided through subcontractors. * = Support for DSDP/ODP Core Redistribution Project that will be provided by student workers, research assistants, or contract labor. ** = Student workers who support the WCR are provided through University of California, San Diego, and are funded under Other Direct Costs: Services. ‡ = Position ends 30 May 2007. Employee names reflect the individuals employed in each position as of 31 July 2006.

Employee	USIO Office	Position	WBE Element	% Effort SOC	% Effort POC	Total % Effort
Kim Lee	TAMRF	Procurement Specialist I	M&A	45%	25%	70%
TBN (FY06)	TAMRF	Procurement Specialist I	M&A	40%	40%	80%
Mary Pat Thraen	TAMRF	Supervisor of Property/Databases	M&A	30%	15%	45%
Teresa Salamone	TAMRF	Administrative Assistant	M&A	30%	30%	60%
Bill Lancaster	TAMRF	Associate Vice President, TAMRF Fiscal Affairs	M&A	15%	10%	25%
Betty Skopik	TAMRF	Supervisor of Accounts Payable/Accounts Receivable	M&A	15%	10%	25%
Ivonne Kindt	TAMRF	Assistant Supervisor of Accounts Payable/Accounts Receivable	M&A	10%	30%	40%
LaNelle Boyd	TAMRF	Payables Specialist	M&A	20%	10%	30%
Allison McMullin	TAMRF	Student Worker	M&A	13%	5%	18%
Valeria Day	TAMRF	Supervisor of Budget Planning/Analysis	M&A	15%	10%	25%
TBN (FY06)	TAMRF	Budget Analyst	M&A	20%	10%	30%
Sharon Sanders	TAMRF	Budget Analyst	M&A	5%	5%	10%
Carolyn Engledow	TAMRF	Supervisor of Payroll	M&A	25%	10%	35%
Kay Huff	TAMRF	Payroll Coordinator	M&A	35%	15%	50%
Kim Johnson	TAMRF	Supervisor of Human Resources/Insurance Services	M&A	40%	35%	75%
Ollie Berka	TAMRF	Human Resources Advisor	M&A	35%	55%	90%
Cynthia Escamilla	TAMRF	Human Resources Representative	M&A	75%	10%	85%
Cristy Kasmiroski	TAMRF	Student Worker	M&A	25%	25%	50%
Kathy Bass	TAMRF	Supervisor of Travel/Conference Coordination	M&A	30%	20%	50%
Sande Rogers	TAMRF	Travel Disbursement Specialist	M&A	35%	15%	50%
Denise DeShetler	TAMRF	Travel Services Specialist	M&A	40%	20%	60%
Technical, Engineering, and Science Support						
Overseas Drilling Limited Subcontract†			TE&SS			
Mitch Malone	TAMU	Manager of Science Operations	TE&SS	25%	10%	35%
Janice Muston	TAMU	Administrative Assistant	TE&SS	20%	10%	30%
Jaime Sanchez	TAMU	Graduate Assistant Research	TE&SS	10%	0%	10%
Pat Thompson	TAMU	Supervisor of Materials Support	TE&SS	15%	10%	25%
Dave Lehnert	TAMU	Materials Specialist	TE&SS	5%	15%	20%
Robert Mitchell	TAMU	Marine Logistics Coordinator	TE&SS	15%	5%	20%
Larry Obee	TAMU	Marine Logistics Coordinator	TE&SS	15%	5%	20%
Sandy Dillard	TAMU	Shipping and Receiving Coordinator	TE&SS	10%	10%	20%
Bob Kralich	TAMU	Materials Technician	TE&SS	10%	10%	20%
John Jaskinia	TAMU	Student Worker	TE&SS	5%	5%	10%
Myron Lind	TAMU	Student Worker	TE&SS	5%	5%	10%
Brian Wolf	TAMU	Student Worker	TE&SS	5%	5%	10%
TBN (FY06)	TAMU	Student Worker	TE&SS	5%	5%	10%
TBN (FY06)	TAMU	Student Worker	TE&SS	5%	5%	10%
TBN (FY06)	TAMU	Student Worker	TE&SS	5%	5%	10%
Brad Julson	TAMU	Supervisor of Technical Support	TE&SS	13%	0%	13%
Burney Hamlin	TAMU	Laboratory Officer	TE&SS	15%	0%	15%
TBN (FY06)	TAMU	Laboratory Officer	TE&SS	15%	0%	15%
Lisa Crowder	TAMU	Assistant Laboratory Officer	TE&SS	8%	8%	15%
Chieh Peng	TAMU	Assistant Laboratory Officer	TE&SS	8%	8%	15%
TBN (FY06)	TAMU	Assistant Laboratory Officer	TE&SS	8%	8%	15%
Mike Storms	TAMU	Supervisor of Operational Support	TE&SS	0%	29%	29%
Gene Pollard	TAMU	Operations Engineer	TE&SS	0%	34%	34%

Employee	USIO Office	Position	WBE Element	% Effort SOC	% Effort POC	Total % Effort
Ron Grout	TAMU	Operations Superintendent	TE&SS	0%	34%	34%
TBN (4/01/07)	TAMU	Operations Superintendent	TE&SS	0%	100%	100%
TBN (FY06)	TAMU	Supervisor of Science Support	TE&SS	25%	25%	50%
Carlos Alvarez Zarikian	TAMU	Staff Scientist	TE&SS	25%	25%	50%
Cedric John	TAMU	Staff Scientist	TE&SS	25%	25%	50%
Adam Klaus	TAMU	Staff Scientist	TE&SS	25%	25%	50%
TBN (FY06)	TAMU	Staff Scientist	TE&SS	25%	25%	50%
TBN (FY06)	TAMU	Staff Scientist	TE&SS	25%	25%	50%
TBN (FY06)	TAMU	Staff Scientist	TE&SS	25%	25%	50%
TBN (1/1/07)	TAMU	Staff Scientist	TE&SS	25%	25%	50%
TBN (4/1/07)	TAMU	Staff Scientist	TE&SS	25%	25%	50%
Jay Miller	TAMU	Manager of Tools and Analytical Services (Interim)	TE&SS	40%	10%	50%
Marti Kacer	TAMU	Administrative Assistant	TE&SS	10%	10%	20%
Karen Graber	TAMU	Staff Researcher	TE&SS	50%	0%	50%
Blake Hardgrave	TAMU	Student Worker	TE&SS	40%	0%	40%
Derryl Schroeder	TAMU	Supervisor of Engineering Services	TE&SS	30%	10%	40%
Bob Aduddell	TAMU	Engineer	TE&SS	20%	20%	40%
Liping Chen	TAMU	Engineer	TE&SS	20%	0%	20%
Kevin Grigar	TAMU	Engineer	TE&SS	25%	5%	30%
TBN (FY06)	TAMU	Engineer	TE&SS	15%	5%	20%
TBN (FY06)	TAMU	Engineer	TE&SS	15%	5%	20%
Eric Schulte	TAMU	Senior Design Technician	TE&SS	20%	0%	20%
Dean Ferrell	TAMU	Designer	TE&SS	15%	5%	20%
Mike Meiring	TAMU	Designer	TE&SS	20%	0%	20%
TBN (FY06)	TAMU	Designer	TE&SS	15%	50%	65%
Peter Blum	TAMU	Supervisor of Analytical Services	TE&SS	28%	1%	29%
David Houpt	TAMU	Senior Project Administrator	TE&SS	21%	4%	25%
Lisa Brandt	TAMU	Laboratory Specialist	TE&SS	9%	9%	18%
Chris Bennight	TAMU	Research Specialist	TE&SS	9%	9%	18%
Trevor Cobine	TAMU	Research Specialist	TE&SS	18%	0%	18%
Kazuho Fujine	TAMU	Research Specialist	TE&SS	18%	0%	18%
Margaret Hastedt	TAMU	Research Specialist	TE&SS	18%	0%	18%
Zenon Mateo	TAMU	Research Specialist	TE&SS	18%	0%	18%
Erik Moortgat	TAMU	Research Specialist	TE&SS	18%	0%	18%
Maxim Vasilyev	TAMU	Research Specialist	TE&SS	18%	0%	18%
TBN (FY06)	TAMU	Research Specialist	TE&SS	9%	9%	18%
TBN (FY06)	TAMU	Research Specialist	TE&SS	18%	0%	18%
Paul Foster	TAMU	Applications Developer Administrator	TE&SS	25%	0%	25%
David Fackler	TAMU	Applications Developer IV	TE&SS	18%	0%	18%
Dwight Hornbacher	TAMU	Applications Developer IV	TE&SS	18%	0%	18%
James Zhao	TAMU	Applications Developer II	TE&SS	18%	0%	18%
TBN (FY06)	TAMU	Applications Developer II	TE&SS	18%	0%	18%
Brice Lambi	TAMU	Applications Developer I	TE&SS	18%	0%	18%
Paul Paskin	TAMU	Applications Developer I	TE&SS	18%	0%	18%
Stephanie Zeliadt	TAMU	Applications Developer I	TE&SS	18%	0%	18%
TBN (FY06)	TAMU	Applications Developer I	TE&SS	18%	0%	18%
David Becker	TAMU	Manager of Information Technology and Data Services	TE&SS	45%	0%	45%
Denise Ponzio	TAMU	Information Services Assistant	TE&SS	80%	0%	80%
Phil Gates	TAMU	Supervisor of Information Technology Support	TE&SS	40%	0%	40%
Cesar Flores	TAMU	Senior Systems Administrator	TE&SS	43%	0%	43%
Jennifer Hutchinson	TAMU	Systems Administrator	TE&SS	45%	0%	45%
Matt Mefferd	TAMU	Systems Administrator	TE&SS	60%	0%	60%

Employee	USIO Office	Position	WBE Element	% Effort SOC	% Effort POC	Total % Effort
TBN (FY06)	TAMU	Systems Administrator	TE&SS	60%	0%	60%
Mike Petersen	TAMU	Senior Systems Support Specialist	TE&SS	70%	0%	70%
James Cordray	TAMU	Systems Support Specialist	TE&SS	80%	0%	80%
Mike Hodge	TAMU	Associate Marine Computer Specialist	TE&SS	20%	0%	20%
David Morley	TAMU	Associate Marine Computer Specialist	TE&SS	20%	0%	20%
Paula Clark	TAMU	Marine Computer Specialist	TE&SS	20%	0%	20%
Andrew Trefethen	TAMU	Marine Computer Specialist	TE&SS	20%	0%	20%
TBN (FY06)	TAMU	Marine Computer Specialist	TE&SS	20%	0%	20%
TBN (FY06)	TAMU	Marine Computer Specialist	TE&SS	20%	0%	20%
TBN (FY06)	TAMU	Marine Computer Specialist	TE&SS	20%	0%	20%
TBN (FY06)	TAMU	Marine Computer Specialist	TE&SS	20%	0%	20%
Tim Brewer	LDEO	Logging Consortium Chief Scientist	TE&SS	4%	0%	4%
Yasuyuki Nakamura	LDEO	Logging Consortium Chief Scientist	TE&SS	4%	0%	4%
Renate Pechinig	LDEO	Logging Consortium Chief Scientist	TE&SS	4%	0%	4%
Philippe Pezard	LDEO	Logging Consortium Chief Scientist	TE&SS	4%	0%	4%
TBN (FY06)	LDEO	Manager of Engineering and Technical Services	TE&SS	8%	0%	8%
Walt Masterson	LDEO	Engineering/Logistics Coordinator	TE&SS	17%	0%	17%
Will Keogh	LDEO	Electrical Engineer	TE&SS	10%	0%	10%
Stefan Mrozewski	LDEO	Mechanical Engineer	TE&SS	13%	0%	13%
Golam Sarker	LDEO	Engineering Technical Analyst	TE&SS	17%	0%	17%
Gerardo Iturrino	LDEO	Supervisor of Science Operations	TE&SS	67%	0%	67%
Akram Belghoul	LDEO	Logging Staff Scientist	TE&SS	25%	0%	25%
Florence Einaudi	LDEO	Logging Staff Scientist	TE&SS	25%	0%	25%
Sean Higgins	LDEO	Logging Staff Scientist	TE&SS	33%	0%	33%
Jenny Inwood	LDEO	Logging Staff Scientist	TE&SS	25%	0%	25%
Margarete Linek	LDEO	Logging Staff Scientist	TE&SS	21%	0%	21%
Takeshi Tsuji	LDEO	Logging Staff Scientist	TE&SS	21%	0%	21%
Jill Weinberger	LDEO	Logging Staff Scientist	TE&SS	50%	0%	50%
TBN (FY06)	LDEO	Logging Staff Scientist	TE&SS	25%	0%	25%
TBN (FY06)	LDEO	Logging Staff Scientist	TE&SS	25%	0%	25%
Gilles Guerin	LDEO	Senior Technical Analyst	TE&SS	75%	0%	75%
Ann Cook	LDEO	Graduate Student	TE&SS	100%	0%	100%
TBN (FY06)	LDEO	Graduate Student	TE&SS	100%	0%	100%
Dan Quoidbach	LDEO	Manager of Information Services	TE&SS	100%	0%	100%
Trevor Williams	LDEO	Senior Log Analyst	TE&SS	50%	0%	50%
Ted Baker	LDEO	Systems Analyst/Database Administrator	TE&SS	67%	8%	75%
Josiane Tack	LDEO	Systems Administrator	TE&SS	17%	0%	17%
Kazuko Nagao	LDEO	Web/Graphics Developer	TE&SS	38%	0%	38%
Core Curation						
John Firth	TAMU	Curator	CC	96%	0%	96%
John Stroud	TAMU	Graduate Assistant Research	CC	50%	0%	50%
Gar Esmay	TAMU	Superintendent, ECR	CC	100%	0%	100%
Yasmin Yabyabin	TAMU	Curatorial Specialist	CC	50%	0%	50%
Benjamin Fullon	TAMU	Student Worker, ECR	CC	50%	0%	50%
Alex Gorenstein	TAMU	Student Worker, ECR	CC	50%	0%	50%
Dan Mountain	TAMU	Student Worker, ECR	CC	50%	0%	50%
Beatrice Ponce	TAMU	Student Worker, ECR*	CC	50%	0%	50%
Susan Andershock	TAMU	Research Assistant*	CC	100%	0%	100%
Helene Gould	TAMU	Research Assistant*	CC	100%	0%	100%
Bruce Horan	TAMU	Research Assistant*	CC	100%	0%	100%
Steve Prinz	TAMU	Superintendent, WCR	CC	100%	0%	100%
John Ludka	TAMU	Student Worker, WCR*	CC	50%	0%	50%

Employee	USIO Office	Position	WBE Element	% Effort SOC	% Effort POC	Total % Effort
Phil Rumford	TAMU	Superintendent, GCR	CC	92%	0%	92%
Rachel Culberson	TAMU	Curatorial Specialist	CC	100%	0%	100%
David Gentry	TAMU	Curatorial Specialist	CC	100%	0%	100%
Paula Weiss	TAMU	Marine Curatorial Specialist	CC	75%	0%	75%
Mathew Arun	TAMU	Student Worker, GCR	CC	50%	0%	50%
Chad Broyles	TAMU	Student Worker, GCR	CC	50%	0%	50%
Matthew Croy	TAMU	Student Worker, GCR	CC	50%	0%	50%
Clayton Mack	TAMU	Student Worker, GCR	CC	50%	0%	50%
Jacob Rotan	TAMU	Student Worker, GCR	CC	50%	0%	50%
TBN (FY06)	TAMU	Student Worker, GCR*	CC	50%	0%	50%
TBN (FY06)	TAMU	Student Worker, GCR*	CC	50%	0%	50%
TBN (FY06)	TAMU	Student Worker, GCR*	CC	50%	0%	50%
TBN (FY06)	TAMU	Student Worker, GCR*	CC	50%	0%	50%
TBN (FY06)	TAMU	Student Worker, GCR*	CC	50%	0%	50%
TBN (FY06)	TAMU	Student Worker, GCR*	CC	50%	0%	50%
Data Management						
Rakesh Mithal	TAMU	Supervisor of Databases/Archives	DM	55%	0%	55%
TBN (FY06)	TAMU	Senior Data Administrator	DM	90%	0%	90%
James Slone	TAMU	Data Librarian	DM	80%	0%	80%
Layne Westover	TAMU	Database Administrator	DM	70%	0%	70%
Weining Chen	TAMU	Software Applications Developer	DM	80%	0%	80%
Ying Zhu	TAMU	Software Applications Developer	DM	90%	0%	90%
TBN (FY06)	TAMU	Software Applications Developer	DM	90%	0%	90%
Don Sims	TAMU	Data Analyst	DM	80%	0%	80%
John Beck	TAMU	Senior Imaging Specialist	DM	50%	0%	50%
Bill Crawford	TAMU	Imaging Specialist	DM	30%	0%	30%
Tim Fulton	TAMU	Imaging Specialist	DM	30%	0%	30%
Cristina Broglia	LDEO	Supervisor of Data Services	DM	33%	0%	33%
Jim Murray	LDEO	Technical Services Specialist	DM	67%	0%	67%
Publications						
Angie Miller	TAMU	Manager of Publication Services	P	55%	0%	55%
Gigi Delgado	TAMU	Senior Publications Coordinator	P	30%	0%	30%
Anthony Caviness	TAMU	Student Worker	P	15%	0%	15%
Brooke Perry	TAMU	Student Worker	P	15%	0%	15%
Barbara Riggs-Turner	TAMU	Administrative Assistant	P	75%	0%	75%
Lorri Peters	TAMU	Supervisor of Editing	P	40%	0%	40%
TBN (10/1/06)	TAMU	Associate Editor	P	40%	0%	40%
Abbi Balsmeier	TAMU	Editor	P	20%	0%	20%
Jennifer Hesse	TAMU	Editor	P	40%	0%	40%
Amy McWilliams	TAMU	Editor	P	40%	0%	40%
Shana Smith	TAMU	Editor	P	40%	0%	40%
Kathy Phillips	TAMU	Publications Specialist	P	20%	0%	20%
Ginny Lowe	TAMU	Reports Coordinator	P	60%	0%	60%
Jaime Gracia	TAMU	Supervisor of Production	P	55%	0%	55%
Patrick Edwards	TAMU	Production Specialist III	P	50%	0%	50%
Karen Benson	TAMU	Production Specialist II	P	25%	0%	25%
Kenneth Sherar	TAMU	Production Specialist II	P	50%	0%	50%
TBN (FY06)	TAMU	Production Specialist	P	50%	0%	50%
Ann Yeager	TAMU	Distribution Specialist	P	50%	0%	50%
Debbie Partain	TAMU	Supervisor of Graphics	P	65%	0%	65%
Jennie Lamb	TAMU	Graphics Specialist II	P	70%	0%	70%

Employee	USIO Office	Position	WBE Element	% Effort SOC	% Effort POC	Total % Effort
Nancy Luedke	TAMU	Graphics Specialist II	P	70%	0%	70%
Linda Orsi	TAMU	Graphics Specialist II	P	35%	0%	35%
TBN (FY06)‡	TAMU	Graphics Specialist II	P	70%	0%	70%
TBN (6/1/07)	TAMU	Yeoperson	P	90%	0%	90%
TBN (6/1/07)	TAMU	Yeoperson	P	90%	0%	90%
Logging						
Schlumberger Subcontract†			L			
Education and Outreach						
Susan Boa	JOI	Director, Communications and Development	E&O	30%	0%	30%
John Corsiglia	JOI	Communications Associate	E&O	65%	0%	65%
TBN (10/1/06)	JOI	Education Intern	E&O	30%	0%	30%
Leslie Peart	JOI	Director, Education	E&O	15%	0%	15%
Matthew Niemitz	JOI	Program Assistant	E&O	30%	0%	30%

4. EXPEDITION OPERATIONS

4.1. OPERATIONS

Proposed Operations

FY07 Expeditions

There are no riserless scientific ocean drilling vessel operations scheduled for FY07.

FY08 Expeditions

The FY08 Scientific Ocean Drilling Vessel (SODV) schedule of operations recommended by the Integrated Ocean Drilling Program central management office (IODP Management International, Inc. [IODP-MI]) Operations Task Force (OTF) includes the following expeditions: Equatorial Pacific 1, NanTroSEIZE 1 and 2, and Juan de Fuca. These expeditions all require equipment and/or supplies that necessitate orders to be placed in FY07. Explanations for specific high-cost items are also enumerated in the Section 6. Technical, Engineering, and Science Support budget narrative.

For planning purposes, Singapore (the assumed location of the shipyard for SODV conversion) is the initial port of call for the first FY08 expedition that begins 1 November 2007. A decision on the yard is expected by late summer of 2006. A single-day port call in Honolulu, Hawaii, is assumed as the location for scientists to board the vessel prior to on-site operations. This strategy reduces the need for the scientists to spend time on the vessel as it transits from Singapore to Honolulu, Hawaii.

5. MANAGEMENT AND ADMINISTRATION

5.1. RESPONSIBILITIES

The U.S. Implementing Organization (USIO) of the Integrated Ocean Drilling Program (IODP) provides integrated management that is led by the contractor (Joint Oceanographic Institutions, Inc. [JOI]) in coordination with the other two USIO members (Lamont-Doherty Earth Observatory [LDEO] of Columbia University and Texas A&M University [TAMU]). Responsibilities of the USIO management staff include oversight and assurance of the performance of management, administrative, financial, and information systems that support the USIO riserless drilling vessel and vessel operations; strategic planning; oversight of the USIO Annual Program Plan development; mission delivery; resource allocation and prioritization; coordination of required publications and reports for the USIO; and overall science services delivery. The USIO will coordinate planning for initial drilling operations with the other implementing organizations (IOs), ensuring that all operations are consistent with governmental agreements, and will also lead efforts to augment U.S. National Science Foundation (NSF) resources for the USIO by fostering relationships between the USIO and other national and international science programs and developing proposals for work in those cases in which Program priorities are coincident.

The USIO will serve as the primary source for clear and effective communication of U.S. operations and the coordination of linkages with USIO stakeholders including NSF, the IODP central management office (IODP Management International [IODP-MI]), Japan Marine Science and Technology Center (JAMSTEC), Center for Deep Earth Exploration (CDEX), European Consortium for Ocean Drilling Research (ECORD) Management Agency (EMA), ECORD Science Operator (ESO), Chinese Ministry of Science and Technology (MOST), and other IODP partners. Liaisons will be provided as needed with Science Advisory Structure (SAS) panels (e.g., Science Planning and Policy Committee [SPPOC], Science Planning Committee [SPC]) and IODP-MI Task Forces (e.g., Operations Task Force [OTF]), as well as with other IOs and IODP-MI.

5.2. DELIVERABLES IN FY07

- Develop a USIO Annual Program Plan based on a mission forecast provided by NSF and incorporate input from IODP-MI. The Program Plan will:
 - Outline IODP expectations and USIO programmatic goals.
 - Summarize USIO planning requirements related to FY08 operational activities.
 - Provide projected USIO budgets for science operating costs (SOCs) and platform operating costs (POCs), based on staffing and organizational plans.
- Coordinate planning for initial drilling operations with CDEX and ESO, ensuring that all operations are consistent with governmental agreements, including drilling clearances.
- Oversee the planning, implementation, and review of scheduled USIO expeditions.
- Select and work with other subcontractors, as required, to meet programmatic objectives.
- Head the Logging Consortium for USIO riserless logging activities.
- Procure (or otherwise provide) all required insurance, including indemnification against “drilling-specific” risks.

- Implement a health, safety, and environment (HSE) program for the USIO riserless drilling vessel and shore-based facilities.
- Oversee the development of an updated environmental assessment (EA) and Programmatic Environmental Impact Statement (PEIS) for USIO riserless drilling operations that are planned to start in early FY08 and continue beyond.
- Manage production and dissemination of the USIO Annual Program Plan, USIO Quarterly Reports, and USIO Annual Report.
- Manage production and dissemination of the following USIO, ESO, and CDEX publications: Technical Notes, Scientific Prospectuses, Preliminary Reports, and *Proceedings of the Integrated Ocean Drilling Program*, with guidance from IODP-MI. Provide guidance to IODP-MI on publication matters.
- Review programmatic accomplishments from the previous year's activities.
- 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.
- Define collaborative strategies to IODP challenges that will lead to coordinated planning and integrative outcomes across IODP entities, such as the IOs.
- Work with IODP-MI and stakeholders to evaluate the USIO Program within IODP.
- Fulfill liaison responsibilities to the SAS, the other IOs, and IODP-MI, as appropriate.

5.3. RELATIONSHIP WITH IODP ENTITIES

The USIO will play a leadership role in working with the SAS, IODP-MI, Program Member Offices (PMOs), and the other IOs to coordinate planning, training, and development activities. Specific activities that have been budgeted include:

- Work with the IOs to gain a deeper understanding of the organizational structure of each group, to develop methods to improve communication, and to increase collaboration.
- Hold discussions with IODP-MI and the IOs to develop the framework for higher levels of integration for IODP, including:
 - Joint planning for integrated expedition management;
 - Development of the Annual Program Plan and refinement of definitions of budget elements;
 - Development of a planning process that addresses IO needs and responsibilities as well as IODP-MI and lead agency guidance;
 - Exploration of opportunities for collaborative expedition project management that will lead to efficient and cost-effective implementation and execution of the expeditions for multiplatform drilling projects.
- 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.
- Share annual and long-term plans with the other IOs, SAS, and IODP-MI, as appropriate, to allow coordinated strategic planning for IODP.

5.4. BUDGET

Element/Expense Category	SOC	POC	Total
Management and Administration			
Salaries and Fringes	1,190,822	757,726	1,948,548
Travel	114,292	126,364	240,656
Supplies	28,606	23,892	52,498
Shipping	12,361	11,403	23,764
Communication	25,763	21,348	47,111
Contractual Services	7,500	7,500	15,000
Equipment	22,435	19,700	42,135
Other Direct Costs	52,621	33,069	85,690
Training	6,140	3,577	9,717
Business Conferences	1,850	1,050	2,900
Software	0	0	0
Insurance	5,135	1,975	7,110
Services	20,292	18,286	38,578
Other Computing Services	850	350	1,200
TAMU Computing Services	7,471	3,882	11,353
Equipment Rental	253	0	253
Furniture	2,068	687	2,755
Recruiting	4,192	1,612	5,804
Maintenance and Repair	1,820	800	2,620
Library	2,550	850	3,400
Total Direct Costs	1,454,400	1,001,002	2,455,402
Modified Total Direct Costs (if applicable)	183,486	47,707	231,193
Indirect Costs or Administrative Fees	327,001	255,038	582,039
Total Management and Administration	\$1,781,401	\$1,256,040	\$3,037,441

Funds for this Work Breakdown Element (WBE) are budgeted as follows:

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

SOC/POC—Salaries and fringes for staff supporting the USIO (see Table 1 in “Organizational Structure”).

Travel—Transportation, per diem, and lodging.

SOC—Travel to port calls in support of FY08 activities, SAS panel and working group meetings, USIO meetings, contractor meetings, scientific and technical meetings, meetings with IODP-MI and the other IOs, and professional meetings. [Approximate travel breakdown is as follows: 25 international trips at \$3,000 each; 54 domestic trips at \$1,500 each.]

POC—A portion of one trip to London to coordinate the marine insurance package for conversion and USIO operations in FY07 and beyond; travel to port calls in support of FY08 activities, IODP-MI, and IO meetings, SAS panel and working group meetings, contractor meetings, scientific and technical meetings, USIO meetings, and professional meetings. [Approximate travel breakdown is as follows: 21 international trips at \$3,000 each; 46 domestic trips at \$1,500 each.]

Supplies—General office supplies and expendables and operational supplies.

SOC/POC—General office supplies, printer and copier supplies, electronic media and other computer supplies with an acquisition cost of less than \$1,000 for TAMU or less than \$2,000 for LDEO, conference supplies.

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

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

Communication—Telephone and fax charges and Internet services.

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

Contractual Services—Consultant and contract services.

SOC/POC—Consultant services in support of network and video conferencing equipment used for JOI management activities.

Equipment—Procurement, upgrading, or fabrication of equipment.

SOC/POC—Computers, monitors, and printers for new staff and replacement of equipment during FY07.

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

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

SOC/POC—Partial funding for professional training courses.

Business Conferences—Expenses associated with meetings hosted by USIO/TAMU.

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

Software—None budgeted.

Insurance—Annual insurance premiums.

SOC/POC—Program's portion of Director's and Officers' corporate insurance based on the number of officers at USIO/Texas A&M Research Foundation (TAMRF), when compared to the TAMRF corporate officer total.

Services—Expert assistance.

SOC/POC—Visitor parking permits, printing services, TAMU physical plant services, temporary labor, storage space, rental, Internet service 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 USIO staff 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 USIO/TAMU.

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

SOC—Rental of equipment for conferences.

POC—None budgeted.

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, equipment repair, service agreements on business machines (copiers, fax machines, calculators, typewriters, etc.), and off-site computer repair.

Library—Books, journals, and other resources.

SOC/POC—Reference books, resources, and subscriptions to professional materials.

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

SOC/POC—

JOI: The NSF-approved provisional rate of 28% was used to calculate JOI general and administrative (G&A) costs. G&A costs are charged on all direct costs, and only on the first \$100,000 of all subcontracts JOI administers (e.g., TAMRF and LDEO subcontracts = \$56,000) under a particular contract. 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).

LDEO: Indirect costs at 53% are assessed on all USIO/LDEO 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 FY07. Modified total direct costs (MTDC) are the total direct costs minus these exceptions.

TAMU: A negotiated administrative fee is paid to TAMRF in lieu of indirect costs for corporate administration of the Program, as established by the JOI/TAMRF contract. This fee reimburses TAMRF for corporate activities in support of the USIO/TAMU performed by staff members who are not direct charged to the Program (i.e., TAMRF staff members who work at the TAMRF corporate office). Examples of these services include but are not limited to vendor activities (i.e., payment for goods and services, check processing, verification, and distribution); 1099 preparation and distribution, audit liaison, document scanning and storage; postage; management activities; university/vendor liaison and payroll preparation and distribution, and

advice and guidance provided by TAMRF off-site legal counsel. Use of corporate resources eliminates redundancy and reduces costs to IODP.

6. TECHNICAL, ENGINEERING, AND SCIENCE SUPPORT

6.1. TECHNICAL, ENGINEERING, AND SCIENCE SUPPORT

6.1.1. Responsibilities

The U.S. Implementing Organization (USIO) of the Integrated Ocean Drilling Program (IODP) is responsible for providing scientific operational planning for the USIO riserless drillship expeditions in response to the National Science Foundation (NSF)/IODP science planning structure and interfacing with the IODP central management office (IODP Management International, Inc. [IODP-MI]). The USIO will also manage, coordinate, and perform the activities and furnish or procure the services, materials, and facilities necessary to support the scientific research, marine operations, and shore-based requirements associated with IODP.

6.1.2. Deliverables in FY07

- Conduct long-range science support and operational planning in support of IODP.
- Formulate the specific operational program for each fiscal year, including identification of sites, their priority in order of drilling objectives, and the scientific experimentation and measurements to be conducted at proposed drill sites, taking safety and environmental factors into consideration.
- Establish and maintain the facilities and staffing necessary for the daily operation and planning of USIO riserless expedition-related program activities.
- Provide selection of and support for Co-Chief Scientists who will be responsible for leading the scientific drilling programs and scientific party who will implement the shipboard data and sample analyses.
- Coordinate precruise activities and scientific prospectus development with Co-Chief Scientists.
- Provide science support, including USIO expedition planning and project management.
- Provide engineering support for planning of science expeditions, downhole instrumentation, in situ measurement tools, coring and drilling tools, logging 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.
- Provide logistical support, including procurement of equipment and supplies, inventory control, and shipping and receiving.
- Maintain and manage shore-based laboratory, test facilities, associated instruments, and support structure to provide reliable calibrated tools for use on the USIO riserless drilling vessel. Train laboratory support staff and test analytical equipment prior to deployment on the drillship.
- Maintain new state-of-the-art drilling and logging equipment and instrumentation required to meet Program objectives and assist deployment of third-party tools. Identify and prioritize technology developments to meet scientific requirements.
- Provide capability of integrating and interpreting core, log, and seismic data at the five Logging Consortium shore-based facilities.

- Provide shore-based technical and engineering support for improving shipboard facilities, developing new measurement systems and/or technology to support scientific and operational needs of IODP, and improving reliability and performance of existing measurement and coring systems.
- Operate and maintain shore-based computer and network systems. Provide information technology services to support operations on shore.
- Implement and maintain Internet access to IODP, Ocean Drilling Program (ODP), and Deep Sea Drilling Project (DSDP) databases and publications.
- Maintain an active application development environment to support future USIO custom applications for data capture, transfer, access, and analysis during expeditions.
- Create and/or refine instrument documentation with each new development.
- Act as USIO liaison to meetings with the other implementing organizations (IOs), IODP-MI, and the Science Advisory Structure (SAS), as appropriate.

6.1.3. Relationship with IODP Entities

The USIO will work with the SAS, IODP-MI, Program Member Offices (PMOs), and the other IOs to coordinate and implement planning, training, and development activities. Specific activities that have been budgeted include:

- Work with staff from the other IOs who have parallel duties to gain a deeper understanding of each IO's operational procedures, to access opportunities for collaboration, and to identify where shared procedures can be developed and associated documentation can be created.
- Begin to develop an expedition project management implementation strategy that, where appropriate, integrates across IOs.
- Inform the other IOs and PMOs about third-party expedition-specific activities.
- Work with IODP-MI, the IOs and the SAS to establish a process for defining Quality Assurance/Quality Control (QA/QC) for all IODP platforms, develop an implementation strategy, and begin implementation for laboratories.
- Begin to identify where common technical procedure documentation can be produced or IO-specific documentation can be shared with other IOs.
- Communicate with IODP-MI, the SAS, the IOs, and the PMOs to ensure that FY07 and future plans are shared as a means to articulate USIO requirements for technical, engineering, and science support and engineering development.
- Provide liaisons with appropriate expertise to interact with SAS panels and other IODP-MI working groups and task forces.
- Take advantage of other scheduled travel to maximize opportunities for communication and information exchange.

The following specific interactions are planned between the USIO and the Center for Deep Earth Exploration (CDEX), as well as other interactions (to be defined) with the European Consortium for Ocean Research Drilling (ECORD) Science Operator (ESO):

- Sail two USIO staff members on the CDEX NanTroSEIZE Expedition 1.
- Work with CDEX to look for cost efficiencies and synergies in the procurement process for both platforms.

- Exchange technical and engineering information that will potentially lead to joint creation of technology proposals.
- Coordinate expedition planning activities related to the NanTroSEIZE Drilling Project, as appropriate.
- Continue to identify opportunities for joint meetings/training sessions for IO Staff Scientists via e-mail, videoconference, or in person.
- Continue to provide opportunities for technical staff exchanges.
- Continue to work with the IODP Data Management Coordination Group on the development and implementation of the Scientific Earth Drilling Information Service (SEDIS) Data Management System and the Sample Materials Curation System (SMCS).
- Share information on ship-to-shore communication technology utilized on each platform; work to facilitate ship-to-ship communication.

6.1.4. Budget

Element/Expense Category	SOC	POC	Total
Technical, Engineering, and Science Support			
Technical, Engineering, and Science Support			
Salaries and Fringes	1,798,546	653,046	2,451,592
Travel	360,481	40,754	401,235
Supplies	195,988	2,119,424	2,315,412
Shipping	62,645	10,590	73,235
Communication	25,198	3,904	29,102
Contractual Services	297,443	0	297,443
Equipment	328,050	541,000	869,050
Other Direct Costs	845,677	757,614	1,603,291
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
Travel—ODL	0	165,000	165,000
Other	845,677	592,614	1,438,291
Tuition Remission	32,496	0	32,496
Relocation	67,500	28,125	95,625
Training	251,048	186,161	437,209
Business Conferences	5,508	0	5,508
Software	107,641	0	107,641
Publications/Printing	9,000	0	9,000
Services	79,281	67,463	146,744
Other Computing Services	376	0	376
Equipment Rental	0	281,000	281,000
Furniture	9,075	3,650	12,725
Recruiting	60,300	25,125	85,425
Maintenance and Repair	218,466	258	218,724
Library	4,986	832	5,818
Technical, Engineering, and Science Support Total Direct Costs	3,914,028	4,126,332	8,040,360
Modified Total Direct Costs (if applicable)	601,126	9,975	611,101
Indirect Costs or Administrative Fees	318,597	5,287	323,884
Subtotal Technical, Engineering, and Science Support	4,232,625	4,131,619	8,364,244
Engineering Development			
Salaries and Fringes	0	0	0
Travel	5,000	0	5,000
Supplies	5,000	0	5,000
Contractual Services	35,000	0	35,000
Equipment	0	0	0
Other Direct Costs	37,500	0	37,500
Engineering Development Total Direct Costs	82,500	0	82,500
Modified Total Direct Costs (if applicable)	42,500	0	42,500
Indirect Costs or Administrative Fees	22,525	0	22,525
Subtotal Engineering Development	105,025	0	105,025
Total Technical, Engineering, and Development	\$4,337,650	\$4,131,619	\$8,469,269

Funds for this Work Breakdown Element (WBE) are budgeted as follows:

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

SOC/POC—Salaries and fringes for staff supporting the USIO (see Table 1 in “Organizational Structure”). Long-lead time items include salary support for planning, design, and implementation of the FY08 Equatorial Pacific 1, USIO NanTroSEIZE 1 and 2, and Juan de Fuca expeditions.

Travel—Transportation, per diem, and lodging.

SOC—Professional meetings, meetings with instrumentation and equipment vendors, technical support and service calls to the West Coast Repository (WCR) and the East Coast Repository (ECR), SAS panel meetings, IODP-MI and IO data management and analytical systems coordination meetings, second postcruise meetings, USIO planning meetings, precruise meetings, and travel expenses for USIO staff who will support port call, transit activities, and/or participate in the first expedition (the first expedition begins in FY08 but travel arrangements will be made in FY07). Long-lead time items including travel for planning, design, and implementation of the FY08 USIO NanTroSEIZE 1 and 2, and Juan de Fuca expeditions. [Approximate travel breakdown is as follows: 110 international trips at \$3,000 each; 92 domestic trips at \$1,500 each.]

POC—Travel expenses for USIO staff members who will support port call, transit activities, and/or participate in the first expedition (the first expedition begins in FY08 but travel arrangements will be made in FY07). [Approximate travel breakdown is as follows: 16 international trips at \$3,000 each; 10 domestic trips at \$1,500 each.]

Supplies—General office, laboratory, and operational supplies.

SOC—General office supplies; printer and copier supplies; electronic media and other computer supplies with an acquisition cost of less than \$1,000 for USIO/Texas A&M University (TAMU) and less than \$2,000 for USIO/Lamont-Doherty Earth Observatory (LDEO) of Columbia University; expendables and small hardware necessary for continued operations and maintenance of information technology (IT) resources; LDEO software and upgrade purchases; and logistic and shipping supplies for the first two expeditions (the first two expeditions are scheduled to occur in the first half of FY08 but long-lead time items will be purchased in FY07).

POC—Office and operational supplies, logistic, and shipping supplies for the first FY08 expedition; test hardware for casing seal development; and long-lead time POC items, including supplies for the FY08 Equatorial Pacific 1 expedition (\$94,058), USIO NanTroSEIZE Expedition 1 (\$1,069,292), and USIO NanTroSEIZE Expedition 2 (\$951,438).

Shipping—Postage, express mail, and freight.

SOC/POC—Postage for regular correspondence, small packages, and shipping to the first expedition (the first expedition begins in FY08 but shipments in support of the expedition will be made in FY07).

Communication—Telephone and fax charges.

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

Contractual Services—Consultant and contract services.

SOC—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 Staff 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 FY07.

POC—None budgeted.

Equipment—Procurement, upgrading, or fabrication of equipment.

SOC—For USIO/LDEO, equipment having an acquisition cost of \$2,000 or more. For USIO/TAMU, procurement, upgrading, or fabrication of equipment with an acquisition cost of over \$5,000 plus those items as defined by Texas A&M Research Foundation (TAMRF) policy.

Workstation/laptops and monitors for new staff and replacement of network equipment, aged workstations, printers, laptops, plotter, monitors, and two file and print servers are also covered in this category.

POC—Long-lead time items, including costs for the FY08 USIO NanTroSEIZE Expeditions 1 and 2 (\$224,000) and Juan de Fuca (\$316,000) circulation obviation retrofit kits (CORKs).

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

Day Rate—None budgeted.

Fuel and Lubricants—None budgeted.

Per Diem—None budgeted.

Port Calls—None budgeted.

Insurance—Annual insurance premiums.

SOC—Annual insurance premiums for USIO vehicles.

POC—None budgeted.

Travel—Overseas Drilling Limited (ODL)—Subcontractor transportation.

SOC—None budgeted.

POC—Airfare for Transocean, SOS, and Catermar crews to embark the vessel in Singapore and disembark in Honolulu, Hawaii. Travel will be in early FY08, but the purchase of the tickets is expected to occur in late FY07.

Tuition remission—

SOC—Tuition remission for two graduate students at USIO/LDEO.

POC—None budgeted.

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/POC—Professional training courses.

Business Conferences—Expenses associated with meetings hosted by USIO/TAMU.

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

POC—None budgeted.

Software—Software purchases and upgrades.

SOC—USIO/TAMU system and application upgrades, software subscriptions, volume licensing agreements, and concurrent usage software agreements used in support of continuing activities and systems maintenance.

POC—None budgeted.

Publications/Printing—Charges to have an article printed in a publication.

SOC—Charges for publication of articles written by USIO Staff Scientists.

POC—None budgeted.

Services—Expert assistance.

SOC—Annual physical examinations for seagoing personnel, TAMU Physical Plant services, copier services, external copying and printing services, safe deposit box rentals, LDEO general repair and maintenance expenses for office and logging equipment.

POC—Annual physical examinations for seagoing personnel, copier services, external copying, and initial third-party analysis of Initial Proposal Evaluation (IPE) preparation.

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

SOC—Internet provider services.

POC—None budgeted.

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

SOC—None budgeted.

POC—Rental of handling equipment for flush joint casing for USIO NanTroSEIZE 1 and 2.

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.

Maintenance and Repair—Maintenance agreements and equipment repairs.

SOC—Copier maintenance agreements; various maintenance contracts and repairs for IT hardware and software; maintenance and repair of vehicle fleet, equipment in warehouse, overhead cranes, scales, and other loading dock equipment; and off-site computer repair.

POC—Office equipment maintenance contracts and repairs.

Library—Books, journals, and other resources.

SOC/POC—Technical books and journals required for reference, including subscriptions to professional journals (for both paper journals and access to electronic journals not available through TAMU).

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

SOC/POC—For USIO/LDEO, 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 FY07. Modified total direct costs (MTDC) are the total direct costs minus these exceptions.

6.2. ENGINEERING DEVELOPMENT

6.2.1. Responsibilities

The USIO is responsible for ensuring that the engineering resources are utilized to create development priorities, provide oversight of engineering development projects, establish integrated development teams for these projects, and ensure regular communications with engineering development teams at other IOs.

6.2.2. Deliverables in FY07

- Carry out the Logging-while-Coring Project (SOC \$75,025). The purpose of this project is to build core tubes and ancillary hardware for use with logging-while-coring (LWC) equipment that was previously deployed as a “proof of concept” during ODP Legs 204 and 209. This project is the next of several incremental steps by the USIO to make this state-of-the-art technology ready for more routine use by all IODP platforms. The project will address the primary shortcomings of the prototype LWC system by building a core tube specifically designed toward improving core quality and quantity.
- Conduct the Pulse Telemetry Module Feasibility and Design Study (SOC \$30,000). The purpose of this development is to provide real-time, at-the-bit drilling dynamics data to the driller. The FY07 budget includes funds to outsource a feasibility and design study for development of a mud pulse telemetry system for the USIO to use on the USIO riserless drilling vessel. A specific deliverable of this feasibility and design study will include an assessment of available off-the-shelf technology vs. in-house development of part or all of the system. Our overall strategy is a 3-year plan to design, fabricate, test, and implement a mud pulse telemetry system to interface with the Drilling Sensor Sub (DSS) and the Retrieval Memory Module (RMM). The plan will include design and fabrication or purchase of available system components and testing and implementation based on the results of the engineering study.

6.2.3. Relationship with IODP Entities

- In FY07, the USIO will work with CDEX and the ESO, as well as with IODP-MI, to identify possibilities for joint engineering development activities in alignment with the IODP Technology Roadmap that will be evaluated by the Engineering Development Panel (EDP). (See also Section 6.1.3.)

6.2.4. Budget

Element/Expense Category	SOC	POC	Total
Engineering Development			
Salaries and Fringes	0	0	0
Travel	5,000	0	5,000
Supplies	5,000	0	5,000
Contractual Services	35,000	0	35,000
Equipment	0	0	0
Other Direct Costs	37,500	0	37,500
Services	37,500	0	37,500
Total Engineering Development Direct Costs	82,500	0	82,500
Modified Total Direct Costs (if applicable)	42,500	0	42,500
Indirect Costs or Administrative Fees	22,525	0	22,525
Total Engineering Development	\$105,025	\$0	\$105,025

This SOC-funded subtask is budgeted as follows:

Salaries and Fringes—None budgeted.

Travel—Transportation, per diem, and lodging. Includes funds for subcontractor meetings. [Approximate travel breakdown is as follows: 2 trips at \$2,500 each.]

Supplies—General office, laboratory, and operational supplies. Includes steel, fasteners, office supplies, and software.

Contractual Services—Consultant and contract services. Includes funding for manufacture of core barrel main components and land testing of system.

Equipment—None budgeted.

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

Services—Expert assistance. Includes funding for pulse telemetry module feasibility and design study and machining services.

Indirect Costs—Administrative and financial costs associated with operating the Program. For USIO/LDEO, 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. MTDC are the total direct costs minus these exceptions.

7. CORE CURATION

7.1. CORE CURATION

7.1.1. Responsibilities

The Core Curation responsibilities include maintaining facilities for storage and distribution of cores and samples, responding to sample requests from the scientific community, and providing maintenance of existing cores and curation of all new cores. Under this task element in FY07, the U.S. Implementing Organization (USIO) of the Integrated Ocean Drilling Program (IODP) will also be responsible for working with the IODP central management office (IODP Management International, Inc. [IODP-MI]) and the other repositories (Kochi Core Center [KCC] and Bremen Core Repository [BCR]) to implement the Deep Sea Drilling Project (DSDP)/Ocean Drilling Program (ODP) Core Redistribution Project (see Section 7.2).

7.1.2. Deliverables in FY07

- Provide planning and implementation strategies for core sampling and curation.
- Conduct all responsibilities associated with curation of the core collection and provide services in support of drilling program core sampling, analysis, and education.
- Work with other implementing organizations (IOs), the Science Advisory Structure (SAS), and IODP-MI to develop and implement a policy for IODP curation.
- Plan sample and curation strategies for upcoming expeditions and review all shipboard and moratorium-related requests in coordination with the other members of the Sample Allocation Committee (SAC) for each expedition.
- Coordinate curation planning and implementation with other IOs for complex drilling projects.
- Promote the outreach use of the core collection in collaboration with IO and IODP-MI education/outreach personnel by providing materials for display at meetings or museums, as well as conducting tours and supporting other USIO outreach activities.
- Curate cores collected during the DSDP, ODP, and IODP (see Section 7.2).
- Act as USIO liaison to meetings with the other IOs, IODP-MI, and the SAS, as appropriate.

7.1.3. Relationship with IODP Entities

The USIO will work with the SAS, IODP-MI, Program Member Offices (PMOs), and the other IOs to coordinate and implement planning, training, and development activities. Specific activities that have been budgeted include:

- Work with staff from the other IOs who have parallel duties to gain a deeper understanding of each IO's operational procedures, access opportunities for collaboration, and identify where shared procedures can be developed and associated documentation can be created.
- Inform the other IOs and PMOs about the sampling plans for each expedition.
- Coordinate curation planning and implementation with other IOs for multiple-expedition drilling projects.
- Coordinate curation planning, training, and implementation with IODP-MI and the other IOs for the DSDP/ODP Core Redistribution Project. Communicate with IODP-MI, the SAS, the IOs, and the PMOs to ensure the community understands the plan (see Section 7.2.3).

- Work with IODP-MI, the other IOs, and the SAS to develop, implement, and review core curation policies, as needed.
- Provide liaisons with appropriate expertise to interact with SAS panels and other IODP-MI working groups and task forces.
- Promote the outreach use of the core collection in collaboration with the Education and Outreach staff at IODP-MI and the other IOs by providing materials for display at meetings or museums, as well as conducting tours and facilitating educational activities.
- Continue work with the IODP Data Management Coordination Group on the development and implementation of the Sample Materials Curation System (SMCS).
- Participate in the first IODP Annual IO Curator Meeting to be held at the KCC, with IODP curatorial staff.
- Work with the other IOs to define training information and procedural documentation that should be produced in addition to existing shore-based and shipboard curators' handbooks.

7.1.4. Budget

Element/Expense Category	SOC	POC	Total
Core Curation			
Core Curation			
Salaries and Fringes	537,199	0	537,199
Travel	35,701	0	35,701
Supplies	24,700	0	24,700
Shipping	22,600	0	22,600
Communication	4,660	0	4,660
Contractual Services	0	0	0
Equipment	0	0	0
Other Direct Costs	241,622	0	241,622
Training	4,265	0	4,265
Services	223,957	0	223,957
Maintenance and Repair	13,400	0	13,400
Core Curation Total Direct Costs	866,482	0	866,482
Modified Total Direct Costs (if applicable)	0	0	0
Indirect Costs or Administrative Fees	0	0	0
Subtotal Core Curation	866,482	0	866,482
DSDP/ODP Core Redistribution			
Salaries and Fringes	262,864	0	262,864
Travel	22,500	0	22,500
Supplies	93,263	0	93,263
Shipping	531,171	0	531,171
Other Direct Costs	123,200	0	123,200
Services	115,800	0	115,800
Equipment Rental	5,400	0	5,400
Maintenance and Repair	2,000	0	2,000
DSDP/ODP Core Redistribution Total Direct Costs	1,032,998	0	1,032,998
Modified Total Direct Costs (if applicable)	0	0	0
Indirect Costs or Administrative Fees	0	0	0
Subtotal DSDP/ODP Core Redistribution	1,032,998	0	1,032,998
Total Core Curation	\$1,899,480	\$0	\$1,899,480

Funds for this Work Breakdown Element (WBE) are budgeted as follows:

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

SOC—Salaries and fringes for staff supporting the USIO (see Table 1 in “Organizational Structure”).

POC—None budgeted.

Travel—Transportation, per diem, and lodging.

SOC—Professional conferences, IODP-MI and IO meetings, USIO meeting, and travel costs for one Curatorial Specialist to sail the first expedition (the first expedition begins in early FY08, but travel arrangements will be made in FY07). [Approximate travel breakdown is as follows: 11 international trips at \$3,000 each; 6 domestic trips at \$1,500 each.]

POC—None budgeted.

Supplies—General office and operational supplies.

SOC—General office and laboratory supplies and specialized supplies for sampling and curatorial tasks. The Gulf Coast Repository (GCR) orders specialized sampling supplies for all USIO repositories (GCR, East Coast Repository [ECR], and West Coast Repository [WCR]); therefore, funds for these supplies are concentrated in the GCR budget.

POC—None budgeted.

Shipping—Postage, express mail, and freight.

SOC—Postage for regular correspondence, regular-sized sample shipments to scientists, and bulk sampling supply shipments to the ECR and WCR.

POC—None budgeted.

Communication—Telephone and fax charges.

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

POC—None budgeted.

Contractual Services—None budgeted.

Equipment—None budgeted.

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

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

SOC—Professional training courses.

POC—None budgeted.

Services—Expert assistance.

SOC—Annual physical examinations for seagoing personnel; refilling liquid N₂ for frozen hydrate samples; lease and utility costs (power, refrigeration) associated with the operation of the ECR and WCR; student support at WCR, including one half-time student for regular repository activities; 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 USIO/Lamont-Doherty Earth Observatory (LDEO) of Columbia University, 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.

7.2. DSDP/ODP CORE REDISTRIBUTION PROJECT

7.2.1. Responsibilities

The DSDP/ODP Core Redistribution Project responsibilities include continuation of the project that was initiated in FY06 to redistribute core from the ECR and the WCR to the BCR, GCR, and KCC; close the ECR and WCR repositories; and provide curatorial training to Center for Deep Earth Exploration (CDEX) personnel.

7.2.2. Deliverables in FY07

- Continue to provide curatorial training associated with the DSDP/ODP Core Redistribution Project.
- Purchase supplies and equipment to pack USIO repository cores; pack and ship core materials; receive and rack core and close the ECR and WCR repositories (see Table 3).
- Act as USIO liaison to meetings with the other IOs, IODP-MI, and the SAS, as appropriate.

7.2.3. Relationship with IODP Entities

The USIO will work with the IODP-MI and the other IOs to coordinate and implement planning, training, and development activities associated with the DSDP/ODP Core Redistribution Project. Specific activities that have been budgeted include:

- Coordinate curation planning, training, and implementation with IODP-MI and the other IOs.
- Communicate with IODP-MI, the SAS, the IOs, and the PMOs to ensure the community understands the plan.
- Visit the KCC to participate in and provide feedback on shore-based curatorial procedures and facility management and assist with receipt of first DSDP/ODP core shipment.

7.2.4. Budget

Element/Expense Category	SOC	POC	Total
DSDP/ODP Core Redistribution			
Salaries and Fringes	262,864	0	262,864
Travel	22,500	0	22,500
Supplies	93,263	0	93,263
Shipping	531,171	0	531,171
Other Direct Costs	123,200	0	123,200
Services	115,800	0	115,800
Equipment Rental	5,400	0	5,400
Maintenance and Repair	2,000	0	2,000
DSDP/ODP Core Redistribution Total Direct Costs	1,032,998	0	1,032,998
Modified Total Direct Costs (if applicable)	0	0	0
Indirect Costs or Administrative Fees	0	0	0
Total DSDP/ODP Core Redistribution	\$1,032,998	\$0	\$1,032,998

This SOC-funded subtask is budgeted as follows:

Salaries and Fringes—Salaries and fringes, including an anticipated cost-of-living allowance and estimated fringe benefits rate. Includes labor to pack cores for shipping at the GCR and ECR (see Table 1 in “Organizational Structure”).

Travel—Transportation, per diem, and lodging. Includes Curator travel to the other IODP repositories to coordinate work with and assist other repository staff. TAMU shipping specialist travel to the WCR to help with packing first core shipment to the KCC. [Approximate travel breakdown is as follows: 5 international trips at \$3,000 each; 4 domestic trips at \$1,500 each.]

Supplies—General office and laboratory supplies. Includes supplies such as core boxes, stretch wrap, fiber tape, and foam for core stabilization for shipping core from the GCR and WCR.

Shipping—Postage, express mail, and freight. Includes shipping core containers from the ECR to the BCR, GCR, and KCC; shipping core containers from the WCR and GCR to the KCC.

Communication—None budgeted.

Contractual Services—None budgeted.

Equipment—None budgeted.

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

Services—Expert assistance. Includes labor to pack cores for shipping at the WCR.

Equipment Rental—Rental of equipment when it is more economical to rent than purchase. Includes forklift rental at the ECR.

Maintenance and Repair—Maintenance agreements and equipment repairs. Includes service contracts for one new shrink wrap machine for 2 years.

Table 2. DSDP/ODP Core Redistribution Project timeline: FY06 and FY07.

Task	FY06												FY07													
	Oct 05	Nov 05	Dec 05	Jan 06	Feb 06	Mar 06	Apr 06	May 06	Jun 06	Jul 06	Aug 06	Sep 06	Oct 06	Nov 06	Dec 06	Jan 07	Feb 07	Mar 07	Apr 07	May 07	Jun 07	Jul 07	Aug 07	Sep 07		
Project 1. Purchasing of supplies and equipment and securing of labor at BCR, ECR, GCR, KCC, and WCR																										
1 Purchase supplies and equipment to pack all ECR cores: through FY06 and as needed through FY07																										
2 Purchase supplies and equipment to pack all WCR cores: through FY06 and as needed through FY07																										
3 Purchase supplies and equipment to pack all GCR cores: through FY06 and as needed through FY07																										
4 Purchase supplies and equipment and secure labor to pack BCR cores: estimated duration = 8 weeks																										
5 Buy/build KCC core racks for DSDP/ODP cores: during 2nd half of FY06 and through FY07																										

Task	FY06												FY07													
	Oct 05	Nov 05	Dec 05	Jan 06	Feb 06	Mar 06	Apr 06	May 06	Jun 06	Jul 06	Aug 06	Sep 06	Oct 06	Nov 06	Dec 06	Jan 07	Feb 07	Mar 07	Apr 07	May 07	Jun 07	Jul 07	Aug 07	Sep 07		
Project 2. Core Redistribution to BCR																										
1 Make BCR ready to accept ECR cores																										
2 Pack and ship ECR cores to BCR: estimated duration = 53 weeks																										
3 Receive and rack all DSDP/ODP core																										

Note: Table reflects timeline as of February 2006. (Continued on next page.)

		FY06												FY07												
		Oct 05	Nov 05	Dec 05	Jan 06	Feb 06	Mar 06	Apr 06	May 06	Jun 06	Jul 06	Aug 06	Sep 06	Oct 06	Nov 06	Dec 06	Jan 07	Feb 07	Mar 07	Apr 07	May 07	Jun 07	Jul 07	Aug 07	Sep 07	
Task	Project 3. Core Redistribution to KCC																									
1	Make KCC ready to accept DSDP/ODP cores	[Gantt bar from Oct 06 to Jan 07]																								
2	Purchase remaining supplies and equipment and secure labor to pack all WCR and GCR cores	[Gantt bar from Feb 06 to Feb 07]																								
3	Pack and ship WCR cores to KCC: estimated duration = 20 weeks	[Gantt bar from Nov 06 to Feb 07]																								
4	Pack and ship GCR cores to KCC: estimated duration = 47 weeks	[Gantt bar from Nov 06 to Sep 07]																								
5	Pack and ship ECR cores to KCC: estimated duration = 4 weeks	[Gantt bar from Mar 07 to Apr 07]																								
6	Receive and rack all DSDP/ODP core	[Gantt bar from Dec 06 to Sep 07]																								

		FY06												FY07												
		Oct 05	Nov 05	Dec 05	Jan 06	Feb 06	Mar 06	Apr 06	May 06	Jun 06	Jul 06	Aug 06	Sep 06	Oct 06	Nov 06	Dec 06	Jan 07	Feb 07	Mar 07	Apr 07	May 07	Jun 07	Jul 07	Aug 07	Sep 07	
Task	Project 4. Core Redistribution to GCR																									
1	Make GCR ready to accept cores	[Gantt bar from Feb 07 to Feb 07]																								
2	Pack and ship BCR cores to GCR: estimated duration = 5 weeks	[Gantt bar from Feb 07 to Mar 07]																								
3	Pack and ship WCR cores to GCR: estimated duration = 24 weeks	[Gantt bar from Nov 06 to Feb 07]																								
4	Close WCR	[Gantt bar from Jun 07 to Jun 07]																								
5	Pack and ship ECR cores to GCR: estimated duration = 8 weeks	[Gantt bar from May 07 to Jun 07]																								
6	Close ECR	[Gantt bar from Aug 07 to Aug 07]																								
7	Receive and rack all DSDP/ODP core	[Gantt bar from Dec 06 to Sep 07]																								

8. DATA MANAGEMENT

8.1. RESPONSIBILITIES

Data Management responsibilities include data verification, quality control and assessment, access to and archiving of all science data of the Integrated Ocean Drilling Program U.S. Implementing Organization (IODP-USIO); maintenance and availability of the USIO databases for accessing legacy data from IODP, Ocean Drilling Program (ODP), and Deep Sea Drilling Project (DSDP); provision of nonscience database applications, when necessary; and provision of imaging services related to expedition science during and after each expedition.

8.2. DELIVERABLES IN FY07

- Operate and maintain the shore-based data management systems in collaboration with technical staff.
- Maintain the USIO data archives, develop data set descriptions, catalog and enter data into USIO databases, and perform quality assurance/quality control (QA/QC) functions on the data in collaboration with technical staff.
- Respond to data requests from the scientific community.
- Work to standardize logging protocols between platforms, where feasible.
- Work with the USIO staff and logging subcontractor to ensure that proper quality control measures are taken during data acquisition, transfer, and storage; ensure that proper procedures are followed during data processing.
- Provide photography/imaging support, maintain microscopes, process photo requests, and provide scanning services.
- Host the Sample Management Curation System (SMCS) Sample Request Management database.

8.3. RELATIONSHIP WITH IODP ENTITIES

The USIO will work with the Science Advisory Structure (SAS), IODP central management office (IODP Management International, Inc. [IODP-MI]), Program Member Offices (PMOs), and the other IOs to coordinate and implement planning, training, and development activities. Specific activities that have been budgeted include:

- Work with staff from the other IOs who have parallel duties to gain a deeper understanding of each IO's operational procedures, to assess opportunities for collaboration, and to identify where shared procedures can be developed and associated documentation can be created.
- Work with staff from the other IOs to ensure that logging data formats and units are comparable, allowing users to easily integrate data into their scientific studies regardless of which organization collected them.
- Work with other IOs to provide consistent access to logging data for end-users and the IODP Data Portal.
- Work with the USIO and representatives from other implementing organizations (IOs) to standardize logging protocols to the extent feasible.
- Continue work with IODP Data Management Coordination Group on the development and implementation of the Scientific Earth Drilling Information Service (SEDIS) and the SMCS.

- Work with the Center for Deep Earth Exploration (CDEX) and IODP-MI on data integration related to the NanTroSEIZE Drilling Project expeditions.
- Begin to work with IODP-MI, the IOs and SAS to establish a process for defining QA/QC related to data verification that occurs during or postexpedition for all IODP platforms.
- Present IO plans related to cyber-infrastructure and data management at national and/or international meetings.
- Provide liaisons with appropriate expertise to interact with SAS panels and other IODP-MI working groups and task forces.

8.4. BUDGET

Element/Expense Category	SOC	POC	Total
Data Management			
Salaries and Fringes	514,468	0	514,468
Travel	33,561	0	33,561
Supplies	6,000	0	6,000
Shipping	1,500	0	1,500
Communication	500	0	500
Contractual Services	0	0	0
Equipment	3,000	0	3,000
Other Direct Costs	74,483	0	74,483
Training	25,963	0	25,963
Services	15,920	0	15,920
Software	0	0	0
Maintenance & Repair	31,400	0	31,400
Library	1,200	0	1,200
Total Direct Costs	633,512	0	633,512
Modified Total Direct Costs (if applicable)	89,278	0	89,278
Indirect Costs or Administrative Fees	47,317	0	47,317
Total Data Management	\$680,829	\$0	\$680,829

Funds for this Work Breakdown Element (WBE) are budgeted as follows:

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

SOC—Salaries and fringes for staff supporting the USIO (see Table 1 in “Organizational Structure”).

POC—None budgeted.

Travel—Transportation, per diem, and lodging.

SOC—Professional meetings, contractor meetings, scientific meetings, panel meetings, IODP-MI and IO data management meetings, USIO meetings, and travel for staff who will support port call, transit activities, and/or participate in the first two expeditions (the second expedition begins in FY08, but travel arrangements will be made in FY07). [Approximate travel breakdown is as follows: 10 international trips at \$3,000 each; 5 domestic trips at \$1,500 each.]

POC—None budgeted.

Supplies—General office and operational supplies.

SOC—General office and operational supplies and computer software, office, imaging, and digital media supplies for shore-based work.

POC—None budgeted.

Shipping—Postage, express mail, and freight.

SOC—General postage, postage for data and photo requests, and shipping paper prime data for microfilming/imaging.

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—Procurement, upgrading, or fabrication of equipment.

SOC—For USIO/Lamont-Doherty Earth Observatory (LDEO) of Columbia University, equipment having an acquisition cost of \$2,000 or more. For USIO/Texas A&M University (TAMU), procurement, upgrading, or fabrication of equipment with an acquisition cost of over \$5,000 plus those items as defined by Texas A&M Research Foundation (TAMRF) policy.

POC—None budgeted.

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

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

SOC—Professional training courses.

POC—None budgeted.

Services—Expert assistance.

SOC—Imaging/microfilming and storage of paper prime data; continued development of IODP asset management system; Oracle license and database administrator service charges for relational logging database.

POC—None budgeted.

Maintenance and Repair—Maintenance agreements and equipment repairs.

SOC—Contracted maintenance on hardware and software; noncontracted maintenance on photographic equipment; and off-site computer repair.

POC—None budgeted.

Library—Books, journals, and other resources.

SOC—Technical books and journals.

POC—None budgeted.

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

SOC/POC—For USIO/LDEO, 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 FY07. Modified total direct costs (MTDC) are the total direct costs minus these exceptions.

9. PUBLICATIONS

9.1. RESPONSIBILITIES

Publications responsibilities include providing editorial, production, and graphic services for Integrated Ocean Drilling Program (IODP) publications associated with the riserless drilling expeditions; editing and production of all required reports and scientific publications as defined in the U.S. Implementing Organization (USIO) contract with the IODP central management office (IODP Management International, Inc. [IODP-MI]); and warehousing and distribution of IODP, Ocean Drilling Program (ODP), and Deep Sea Drilling Project (DSDP) publications. IODP publications include Quarterly and Annual Reports for the USIO; Scientific Prospectuses and Preliminary Reports for each USIO and European Consortium for Ocean Research Drilling (ECORD) Science Operator (ESO) expedition; and *Proceedings of the Integrated Ocean Drilling Program* volumes for the USIO and ESO expeditions. Publication Services, which will edit and produce Center for Deep Earth Exploration (CDEX) NanTroSEIZE Drilling Project Stage 1 expeditions reports and publications, will work with CDEX on training and coordination activities related to this work.

9.2. DELIVERABLES IN FY07

- Edit and produce all publications and reports handled by the USIO (see Section 9.1).
- Advise IODP-MI on scientific publication style and administer IODP style.
- Manage postexpedition publication citations and related statistics for IODP.
- Manage distribution and warehousing for *Proceedings of the Integrated Ocean Drilling Program* volumes.
- Provide support for the production of USIO graphics, presentations, papers, and other scientific reports.
- Provide centralized record keeping of IODP postcruise research submissions.
- Facilitate the peer review process for *Proceedings of the Integrated Ocean Drilling Program* publications.

9.3. RELATIONSHIP WITH IODP ENTITIES

The USIO will work with the Science Advisory Structure (SAS), IODP-MI, Program Member Offices (PMOs), and the other implementing organizations (IOs) to coordinate and implement planning, training, and development activities. Specific activities that have been budgeted include:

- Communicate with IODP-MI, the SAS, the IOs, and the PMOs to ensure clarity of the IODP publications model.
- Continue to participate in the IODP-MI Publications Task Force.
- Work with other IOs to implement the IODP publications model defined by IODP-MI.
- Provide liaisons with appropriate expertise to interact with SAS panels and other IODP-MI working groups and task forces.

9.4. BUDGET

Element/Expense Category	SOC	POC	Total
Publications			
Salaries and Fringes	619,147	0	619,147
Travel	55,538	0	55,538
Supplies	11,549	0	11,549
Shipping	8,622	0	8,622
Communication	8,240	0	8,240
Contractual Services	0	0	0
Equipment	0	0	0
Other Direct Costs	62,953	0	62,953
Training	33,914	0	33,914
Business Conferences	716	0	716
Software	0	0	0
Services	21,056	0	21,056
Maintenance and Repair	6,199	0	6,199
Library	1,068	0	1,068
Total Direct Costs	766,049	0	766,049
Modified Total Direct Costs (if applicable)	0	0	0
Indirect Costs or Administrative Fees	0	0	0
Total Publications	\$766,049	\$0	\$766,049

Funds for this Work Breakdown Element (WBE) are budgeted as follows:

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

SOC—Salaries and fringes for staff supporting the USIO (see Table 1 in “Organizational Structure”).

POC—None budgeted.

Travel—Transportation, per diem, and lodging.

SOC—Professional conferences and meetings, SAS panel meeting, IODP-MI and IO meetings, USIO meetings, and travel expenses for employees who will support port call activities and sail on the riserless drilling vessel; travel costs to bring off-site USIO staff to participate in on-site meetings. [Approximate travel breakdown is as follows: 11 international trips at \$3,000 each; 14 domestic trips at \$1,500 each.]

POC—None budgeted.

Supplies—Office and operational supplies.

SOC—General office supplies.

POC—None budgeted.

Shipping—Postage, express mail, and freight.

SOC—Postage and shipping for regular correspondence; shipping of *Proceedings of the Integrated Ocean Drilling Program* and USIO reports.

POC—None budgeted.

Communication—Telephone and fax charges.

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

POC—None budgeted.

Other Direct Costs:

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

SOC—Professional training courses.

POC—None budgeted.

Business Conferences—Expenses associated with meetings hosted by USIO/Texas A&M University (TAMU).

SOC—Meal expenses related to hosting meetings.

POC—None budgeted.

Services—Expert assistance.

SOC—Cost of volume DVD production; fees for Ocean Drilling Citation Database (new citations and production of the annual database update on CD-ROM prepared by the American Geological Institute [AGI]); cost of printing the FY06 USIO Annual Report, the FY07 USIO Annual Program Plan, and mailing labels; and annual physical examinations for seagoing personnel.

POC—None budgeted.

Maintenance and Repair—Maintenance agreements and equipment repairs.

SOC—Copier maintenance agreements and annual maintenance of the Ocean Drilling Citation Database (prepared by AGI).

POC—None budgeted.

Library—Books, journals, and other resources.

SOC—Reference books and subscriptions.

POC—None budgeted.

10. LOGGING

10.1. RESPONSIBILITIES

Logging responsibilities include providing for the delivery of all shipboard logging services and equipment, including provision of required logging measurements, materials and logistical support, support of maintenance and enhancement of downhole tools, and support for third-party tool developments for expedition-specific tools.

10.2. DELIVERABLES IN FY07

- No deliverables are scheduled for FY07. Expedition planning activities for FY08 operations are included in the TE&SS element.

10.3. RELATIONSHIP WITH IODP ENTITIES

The U.S. Implementing Organization (USIO) of the Integrated Ocean Drilling Program (IODP) will work with the implementing organizations (IOs) to exchange information related to the provision and delivery of logging services. Specific activities that have been budgeted include:

- Provide integrated operational plans at the pre-expedition level and produce an integrated scientific prospectus especially for expeditions that require input from multiple IOs.

10.4. BUDGET

With no expeditions scheduled in FY07, there are no funds budgeted for this Work Breakdown Element (WBE).

11. EDUCATION AND OUTREACH

11.1. RESPONSIBILITIES

Education and Outreach responsibilities include establishing measures to effectively communicate both shore- and ship-based components of Integrated Ocean Drilling Program (IODP) activities to the public in collaboration with the IODP central management office (IODP Management International, Inc. [IODP-MI]) and the other implementing organizations (IOs), and encouraging awareness of and interest in the scientific results of the Program. This requires direct and indirect interfacing with the news media, the science community, industry, informal educators and science communicators, and a wider general audience. Responsibilities also include general Program outreach and promoting and providing information on IODP and the U.S. Implementing Organization (USIO) to other federal agencies.

The USIO has increased its efforts in Education and Outreach for FY07 in direct response to the IODP Education and Outreach Task Force meeting in November 2005 in Hachinohe, Japan, where an action plan and strategy to increase the visibility and recognition of IODP was developed. All USIO Education and Outreach activities are directed toward the promotion and support of IODP. The strategy put forward by the task force includes the following goals:

- Prepare IODP spokespeople to better communicate the IODP science and programmatic messages and develop communication skills particular to the media interview process through focused sessions organized by the Education and Outreach program professionals.
- Improve the visibility and clarity of IODP as an international program.
- Improve internal communications by more frequent personal dialog with program partners, to support information sharing and problem solving.
- Provide communications guidance and decide on key messages for IODP and identify submessages important to other partner organizations that must also be conveyed in media outreach.

The deliverables in Section 11.2 support this action plan and highlight the advances made by IODP, both scientifically and technically.

11.2. DELIVERABLES IN FY07

- Conduct media outreach activities focusing on IODP science and technology.
- Develop promotional materials providing information and background on IODP and USIO.
- Facilitate the communication of science results and objectives of IODP through media awareness training with IODP-USIO department heads, expedition Staff Scientists and Co-Chief Scientists.
- Produce a series of short video-on-demand treatments of scientific ocean drilling history and science for IODP-related exhibits in the Smithsonian Institution, National Museum of Natural History's Ocean Hall, slated to open in 2008.
- Develop a video news release encompassing the story of the recent conversion of the U.S. Scientific Ocean Drilling Vessel (SODV), its inaugural expedition, and upcoming work with its Japanese counterpart on a project that embodies the international collaboration of the Program.
- Establish and build contacts with Co-Chief Scientists for upcoming IODP expeditions, and with the public information officers at their home universities.

- Sponsor IODP booth/exhibit at the Coalition for National Science Funding (CNSF) reception.
- Sponsor IODP-USIO booths at professional meetings (CNSF, Geological Society of America [GSA], American Geophysical Union [AGU], National Science Teachers Association [NSTA], Conference for the Advancement of Science Teaching [CAST], National Marine Educators Association [NMEA]) focusing on IODP science and providing information for scientists and potential science party members.
- Host a symposium on IODP science accomplishments at the American Association for the Advancement of Science (AAAS) 2007 Annual Meeting.
- Provide publicity for talks and poster sessions given by IODP scientists at science conferences attended by USIO communications staff.
- Provide prominent IODP scientists to speak at public outreach events, such as public lectures at museums, highlighting IODP science goals and results. This deliverable includes providing the keynote speaker at the annual NSTA meeting.

11.3. RELATIONSHIP WITH IODP ENTITIES

The USIO will work with the Science Advisory Structure (SAS), IODP-MI, Program Member Offices (PMOs), and the other IOs to coordinate and implement planning, training, and development activities. Specific activities that have been budgeted include:

- Work with staff from the other IOs who have parallel duties to gain a deeper understanding of each IO's operational procedures, to access opportunities for collaboration, and to identify where shared procedures can be developed and associated documentation can be created.
- Participate in IODP-MI Education and Outreach Task Force.
- Work with IODP-MI and the IOs to establish informal education and outreach plans for Center for Deep Earth Exploration (CDEX) and USIO NanTroSEIZE Drilling Project expeditions.
- Work with other IOs and PMOs on educational outreach activities.
- Continue to work with lead agencies, IODP-MI, and the other IOs to coordinate news releases, media and public awareness, and visual identity activities.
- Work with CDEX to establish bilateral projects related to the public's understanding of research, which may involve shipboard- and museum-based outreach and informal education activities.

11.4. BUDGET

Element/Expense Category	SOC	POC	Total
Education and Outreach			
Salaries and Fringes	133,091	0	133,091
Travel	53,500	0	53,500
Supplies	7,000	0	7,000
Shipping	4,200	0	4,200
Communication	0	0	0
Contractual Services	107,700	0	107,700
Equipment	0	0	0
Other Direct Costs	0	0	0
Total Direct Costs	305,491	0	305,491
Modified Total Direct Costs (if applicable)	0	0	0
Indirect Costs or Administrative Fees	85,537	0	85,537
Total Education and Outreach	\$391,028	\$0	\$391,028

Funds for this Work Breakdown Element (WBE) are budgeted as follows:

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

SOC—Salaries and fringes for staff supporting the USIO (see Table 1 in “Organizational Structure”).

POC—None budgeted.

Travel—Transportation, per diem, and lodging.

SOC—Participation in port calls, outreach to stakeholders, press events, media training, staffing of booths at national and international meetings, and development of IODP information materials. [Approximate travel breakdown is as follows: 26 domestic trips at \$1,500 each.]

POC—None budgeted.

Supplies—General office supplies and expendables and operational supplies.

SOC—General office supplies, including informational materials, b-roll video, posters, and brochures.

POC—None budgeted.

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

SOC—General postage and courier services, including shipping of booth materials to national and international meetings.

POC—None budgeted.

Communication—None budgeted.

Contractual Services—Consultant and contract services.

SOC—Education and Outreach contractual services for platform enrichment activities, including preparation of public relations materials, posters, and videos; preparation of a video news release; media awareness training; booth rentals and associated costs at national and international meetings; public outreach lectures on IODP science results and goals; production of U.S. SODV science laboratory QuickTime VR (QTVR) panoramas for IODP outreach; Smithsonian

Institution video production; and booth rentals and printing of materials to promote IODP science.

POC—None budgeted.

Equipment—None budgeted.

Other Direct Costs—None budgeted.

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

SOC—The National Science Foundation (NSF)-approved provisional rate of 28% was used to calculate Joint Oceanographic Institutions, Inc. (JOI) general and administrative (G&A) costs on all direct costs and on only the first \$100,000 of all subcontracts.

POC—None budgeted.