

# Lamont-Doherty Earth Observatory

COLUMBIA UNIVERSITY | EARTH INSTITUTE

**Financial Management & Financial Reporting Guide**  
**for the**  
**Research Vessel *Marcus G. Langseth***



**January 2013**

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# 1. INTRODUCTION

## Overview of the Ship Financial Management (FM) & Financial Reporting (FR) Guide

The Lamont-Doherty Earth Observatory (LDEO) is a key component of the Earth Institute (EI) at Columbia University (“CU” or “the University”). LDEO is a leading research institution where more than 200 research scientists seek fundamental knowledge about the origin, evolution and future of the natural world. LDEO scientists observe Earth on a global scale, from its deepest interior to the outer reaches of its atmosphere, on every continent and in every ocean. They decipher the long record of the past, monitor the present, and seek to foresee Earth’s future. Scientists in the Division of Marine Geology and Geophysics delve into what lies beneath the world’s oceans and seafloor to explore fundamental earth and ocean processes.

### Research/Vessel Marcus G. Langseth

The latest vessel to be operated at LDEO in a 60-year history of research vessels is the *R/V Marcus G. Langseth*. The *Langseth* was purchased in 2004 by the National Science Foundation (NSF) under a cooperative agreement with the intended operator of the vessel, Columbia University. This 71.5-meter vessel is operated by the Office of Marine Operations at LDEO but is owned by the NSF. The *Langseth* offers unparalleled opportunities for scientists interested in pursuing research in the fields of marine geophysics, seismology and general oceanography. The vessel, which is part of the University-National Oceanographic Laboratory System (UNOLS) academic research fleet, is one of only 6 global class ships capable of exploring around the world’s oceans. The *Langseth* has a unique seismic mapping capability that allows the vessel to image deep into the interior of the ocean’s seafloor. The vessel also maintains many capabilities required of a general-purpose research vessel including a multi-beam sonar system capable of mapping swaths of the ocean floor up to five times the water depth at high resolution, and a flow-through uncontaminated salt water system used to monitor the chemical content of the surrounding ocean water. As the *Langseth* navigates the oceans, the vessel continuously records data pertaining to meteorology, magnetics, gravity and carbon dioxide concentrations. It also offers researchers the use of 425 square meters of on-board laboratory space. Researchers aboard the *Langseth* enjoy unparalleled opportunities to produce groundbreaking research.

### Purpose: Ship Financial Management & Financial Reporting Guide

The purpose of this manual is to provide a Ship Financial Management (FM) and Financial Reporting (FR) Guide as a reference for Principal Investigators, leaders on the vessel whose responsibilities include certain financial transactions and other administrative and management personnel at LDEO or in the Office of Marine Operations (OMO). This Guide provides FM and FR policies and procedures for achieving full compliance with all financial terms and conditions as referenced in the awards from NSF. Personnel are required to use this manual to provide FM&FR guidance on accountability, compliance, and risk management.

### Responsibility to Update the Guide

The OMO Financial Administrator is responsible for updating the Guide with oversight from the OMO Director. The updates will include communication (i.e., policy updates) from LDEO Finance and Central University Offices. The updates include the Standard Operating Procedures (SOP) with oversight from

the OMO Director. In addition, the LDEO Deputy Director for Research Management and the LDEO Assistant Director of Finance and Administration will review the updates to ensure they are comprehensive and accurate. If there are substantial updates to the guide (e.g., new SOP, changes to procedures), the updates will then also be reviewed by the Earth Institute Director of Finance, the University Controller, and the Associate Vice President for Research Financial Operation.

A formal review of the Guide should be performed and documented at least annually. However, the Guide should be updated whenever there are any changes to:

- Federal Requirements
- University policy
- University procedures
- Financial accounting systems
- OMO and LDEO procedures
- Reporting relationships and organizational structure

The Standard Operating Procedures in the Guide should be periodically reviewed to determine if they are still current and accurate as they are written and reflect current practices.

**Document History**

<b>Date</b>	<b>Action</b>	<b>Notes</b>
March 2011	FM-FR Guide Created	
November – December 2012	Revised Guide and all SOPs	Reflects changes due to ARC and the 2012-2017 Cooperative Agreement

## 2. REGULATORY REQUIREMENTS

The following is a list of regulatory requirements in administering the awards for the Ship.

### The Code of Federal Regulations (CFR)

The Code of Federal Regulations (CFR) is the codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the Federal Government. It is divided into 50 titles that represent broad areas subject to Federal regulation. Each volume of the CFR is updated once each calendar year and is issued on a quarterly basis.

- 2 CFR Section 215, *Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and other Non-profit Organizations*

### National Science Foundation

Columbia University, Lamont-Doherty Earth Observatory and the Office of Marine Operations must adhere to the terms and conditions set forth in the 2012-2017 Cooperative Agreement (Award OCE-1211494). The terms and conditions are summarized as follows:

#### NSF General Financial/Administrative Terms and Conditions (FATC)

The NSF General Financial/Administrative Terms and Conditions apply to all NSF Large Facilities. See the following link for more information:

[http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=cafatclf212](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=cafatclf212)

#### Award Specific FATC for Cooperative Agreement and Cooperative Support Agreement

The Financial/Administrative Terms and Conditions specific the *Langseth* are outlined in the Cooperative Agreement. Contact the LDEO Contracts and Grants Office for more details.

### Office of Management & Budget (OMB) Circulars

OMB Circulars applicable for Columbia University are:

#### OMB Circular A-110, Uniform Administrative Requirements for Grants and Other Agreements with Institutions of Higher Education, Hospitals and Other Non-Profit Organizations

Circular A-110 provides both pre- and post-award administrative guidelines, which include the following:

- *Financial and Program Management* – includes requirements for the standards for financial management systems, payment, cost sharing, revision of budget and program plans.
- *Property Standards* – specifies the requirements for governing management and disposition of property furnished by the Federal government and inventory requirements.
- *Procurement Standards* – defines comprehensive requirements which include codes of conduct, competition, procurement procedures, cost and price analysis, record retention.
- *Reports and Records* – sets forth requirements for technical and financial reporting as well as for retention and access requirements for records.
- *Termination and Enforcement* – prescribes the procedures for award termination and remedies for noncompliance by a recipient.
- *After-the-Award Requirements* – specifies close out procedures and other procedures for subsequent disallowances and adjustments.

## **OMB Circular A-21, Cost Principles for Educational Institutions**

Circular A-21 establishes principles for determining costs of federally sponsored projects with educational institutions. It applies to charging of both direct and indirect costs to the project. Since it requires consistency in cost accounting practices for all activities within a institution, Circular A-21 has a significant impact on its financial operations.

- *Section C, Basic considerations* - defines the factors affecting allowability of costs:
  - They must be reasonable;
  - They must be allocable to sponsored agreements under the principles and methods provided under Circular A-21;
  - They must be given consistent treatment through application of those generally accepted accounting principles appropriate to the circumstances; and *d.* They must conform to any limitations or exclusions set forth in Circular A-21 or in the sponsored agreements as to types or amounts of cost items.
- *Section J, General provisions for selected items of costs* – Sections J. 1 through J.54 provide principles to be applied in establishing the allocability of certain items involved in determining costs. These principles should apply irrespective of whether a particular item of costs is properly treated as direct or F&A costs. Examples of requirements are as follows:
  - Time and effort reporting
  - Unallowable costs
  - Limitations of direct and F&A costs

## **OMB Circular A-133, Audits of States, Local Governments, and Non-Profit Organizations**

An audit under Circular A-133 and its Compliance Supplement is required for an organization that receives federal awards totaling \$500,000 or more. Circular A-133 focuses on internal controls and compliance issues. It also defines the requirements for subrecipient monitoring.

## **Cost Accounting Standards**

Cost Accounting Standards (CAS) apply to educational institutions receiving a negotiated federal contract or subcontract award, in excess of \$500,000 [§9903.201-2(c)(3)]. In addition, the Standards are incorporated in Circular A-21, Sections C.10 through C.14.

Four CAS applicable to educational institutions are:

- §9905.501: Consistency in Estimating, Accumulating and Reporting Costs
- §9905.502: Consistency in Allocating Costs
- §9905.505: Accounting for Unallowable Costs
- §9905.506: Cost Accounting Period

Furthermore, a Disclosure Statement (DS-2) must be filed to the cognizant agency by educational institutions receiving aggregate sponsored agreements totaling \$25 million or more. The purposes of filling a Disclosure Statement with the federal government are to:

- Reduce the recurring administrative costs currently associated with the preparation of cost accounting data being submitted routinely to the cognizant federal agencies for informational support, evaluation, and negotiation of the institution's indirect cost rate proposals; and
- Reduce the potential for disagreements between the contracting parties regarding an institution's cost accounting practices.

### 3. ORGANIZATIONAL STRUCTURE

The management and operation of the R/V *Marcus G. Langseth* is a responsibility shared by Columbia University, The Earth Institute, Lamont-Doherty Earth Observatory and the Office of Marine Operations.

#### Institutional Organization Charts

Organization charts for the various institutions, offices, and departments with financial management and financial reporting responsibilities for the *Marcus G. Langseth* are listed below.

#### Office of Marine Operations

<http://www.ldeo.columbia.edu/research/office-of-marine-operations>

#### Lamont-Doherty Earth Observatory

<http://www.ldeo.columbia.edu/about-ldeo/organization/ldeo-governance-structure>

#### The Earth Institute

EI Finance and Admin Org Chart

#### Columbia University

Organization charts for the following University departments and offices can be found on the University Finance Gateway at: <http://finance.columbia.edu/content/organizational-charts?nocache=1351637571>.

A uni login and password is required.

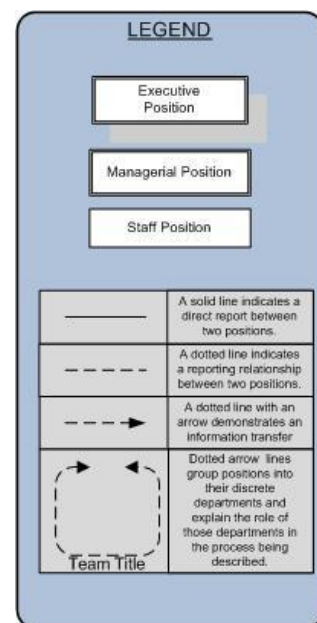
- Office of the Executive Vice President for Finance
- Finance HR/Training
- Enterprise Resource Planning
- Procurement Services
- Office of Internal Audit
- Office of the Treasurer
- Office of Management and Budget
- Office of the Controller
- Columbia Investment Management Company

#### High-Level Organization Charts

High-level organization charts depict the interrelatedness of the various institutions, offices, and departments with responsibilities related to:

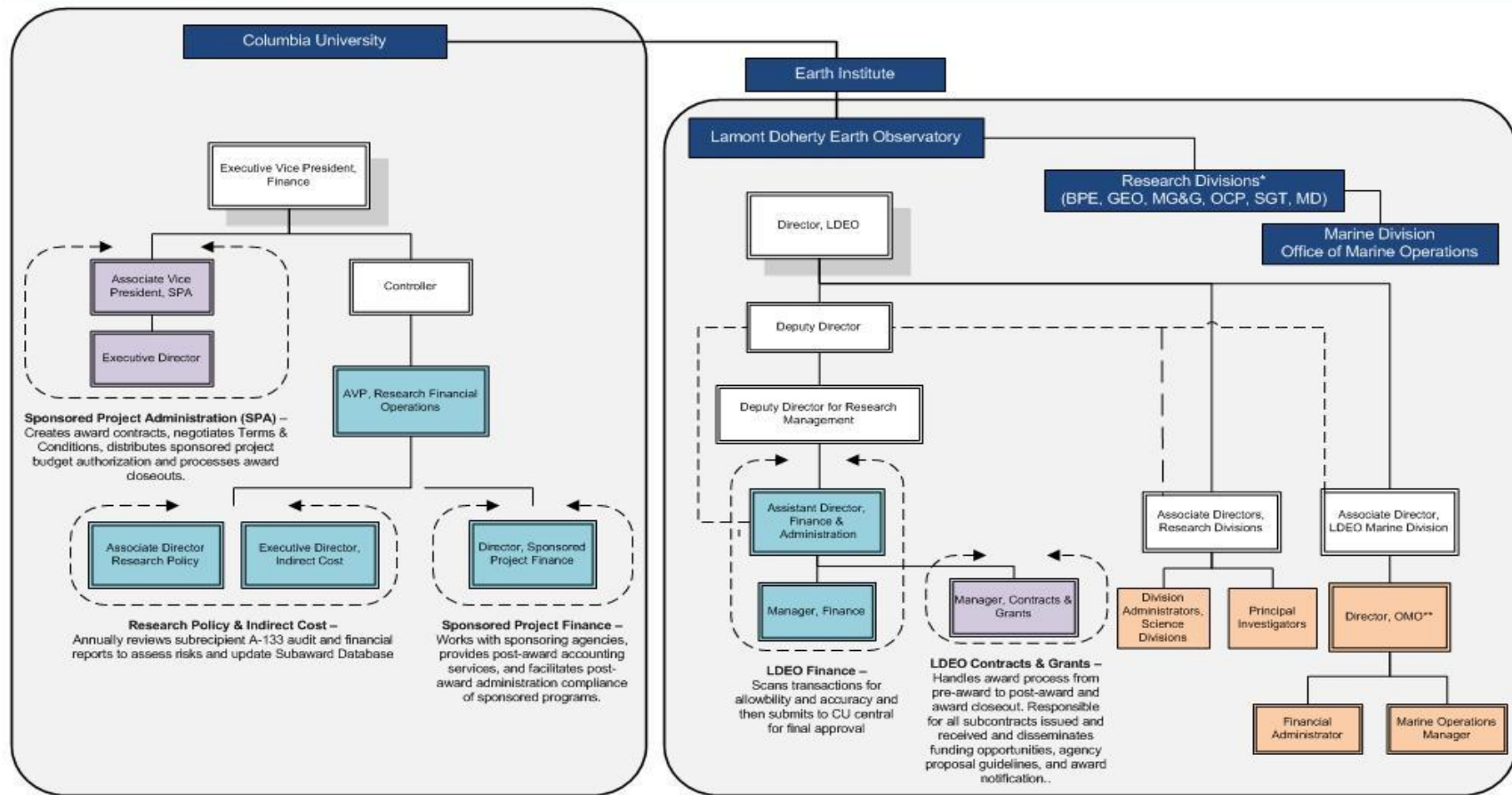
- Award Management;
- Budget Development;
- Financial Management and Reporting; and
- Property, Equipment and Procurement for the R/V *Marcus G. Langseth*.

Please refer to the legend on the right when viewing these high-level organization charts, shown on the next four pages.





**LDEO Award Management Organization Chart**



**Responsibilities:**

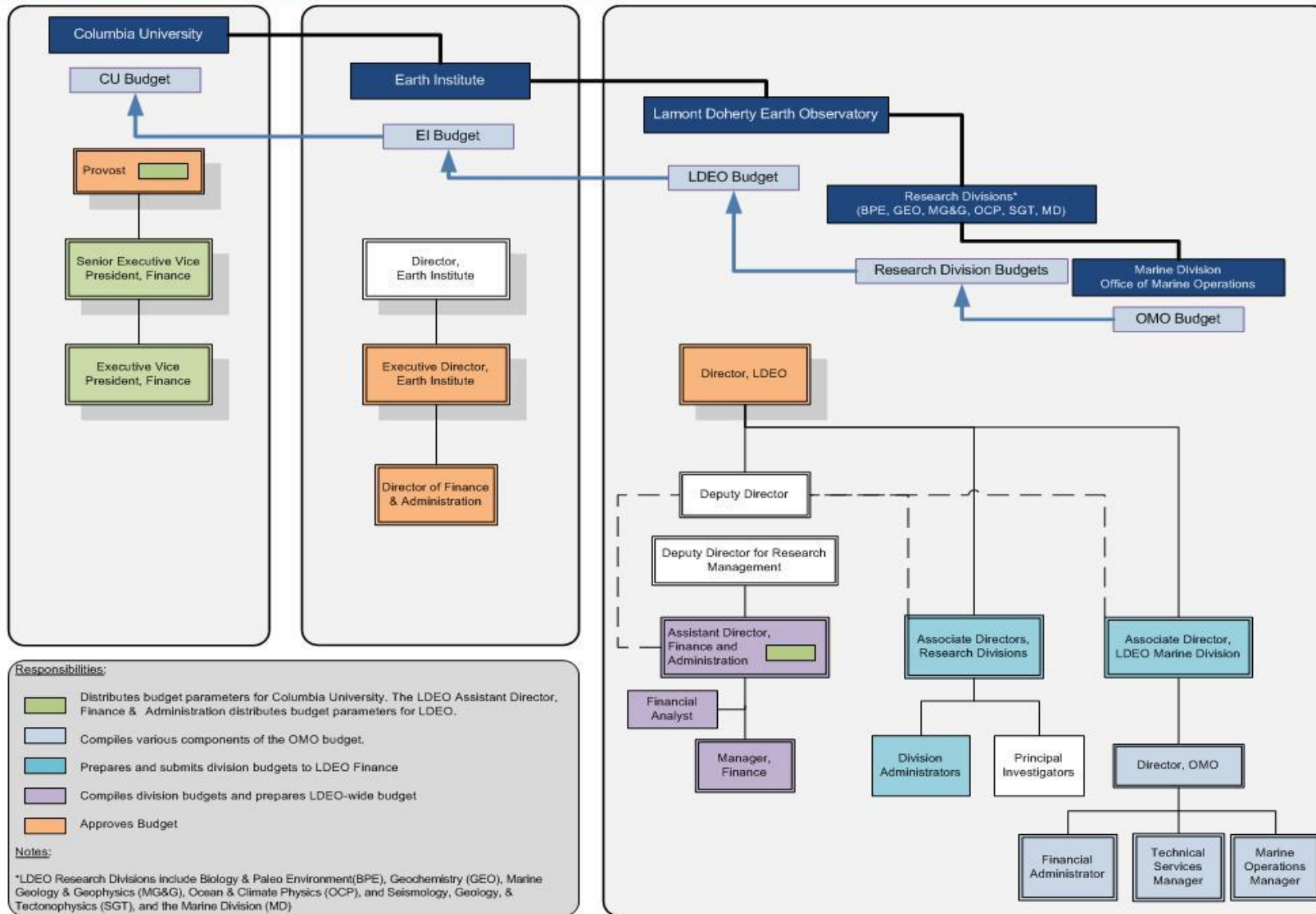
- Participates in the development of the proposal, monitors progress, and tracks deliverables and expenditures
- Reviews proposal and submits to agency. The LDEO Manager, Contracts and Grants has delegated authority from the Trustees to approve proposals on behalf of the University and in this function has a direct report to the Director of SPA.
- Incorporates individual awards into aggregate award management at LDEO and Columbia University

**Notes:**

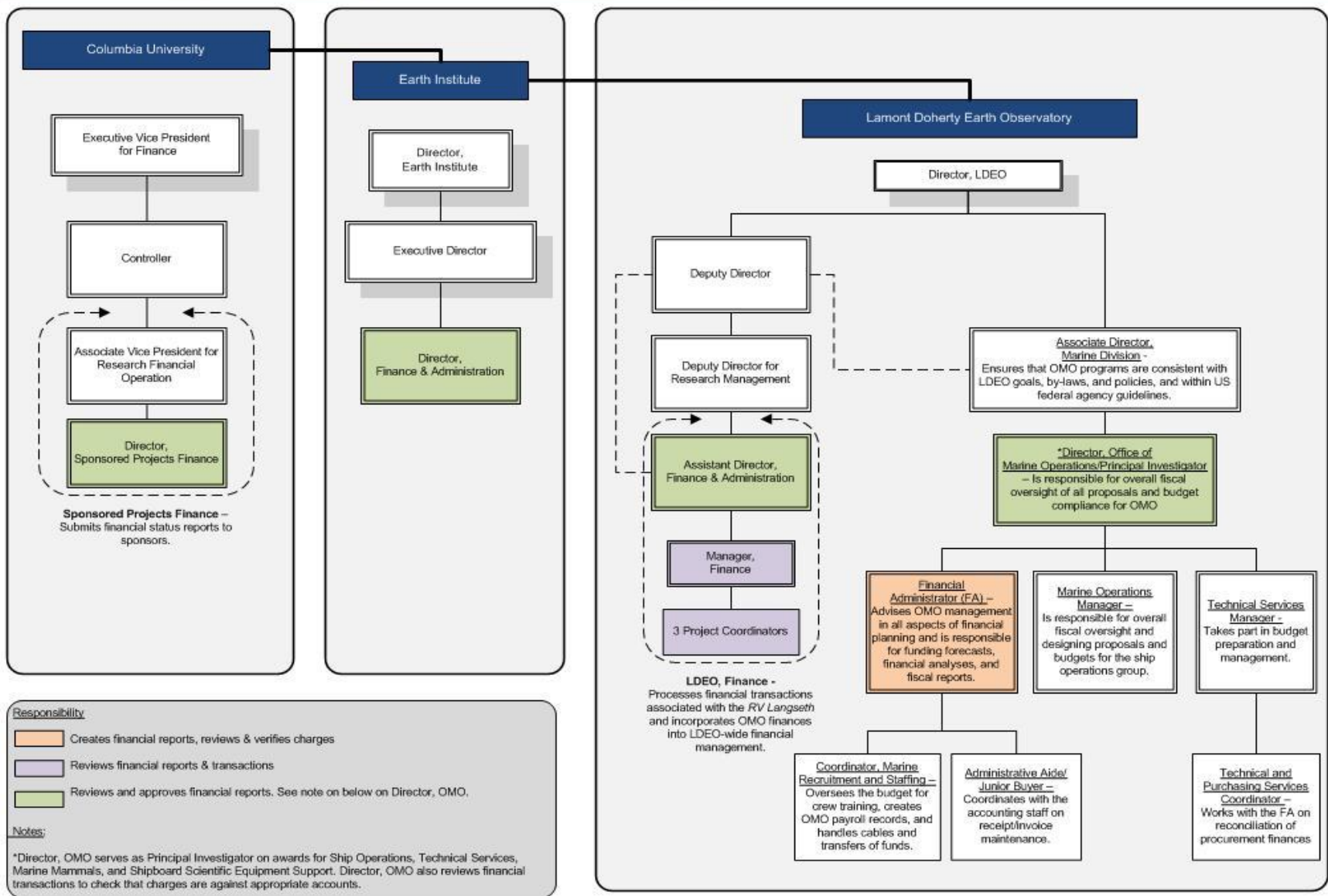
\*LDEO Research Divisions include Biology & Paleo Environment(BPE), Geochemistry (GEO), Marine Geology & Geophysics (MG&G), Ocean & Climate Physics (OCP), and Seismology, Geology, & Tectonophysics (SGT), and the Marine Division (MD)  
 \*\* Director, OMO serves as Principal Investigator on the Major Overhaul and Stabilization award (MOSA) along with the awards for Ship Operations, Technical Services, and Shipboard Scientific Equipment Support.



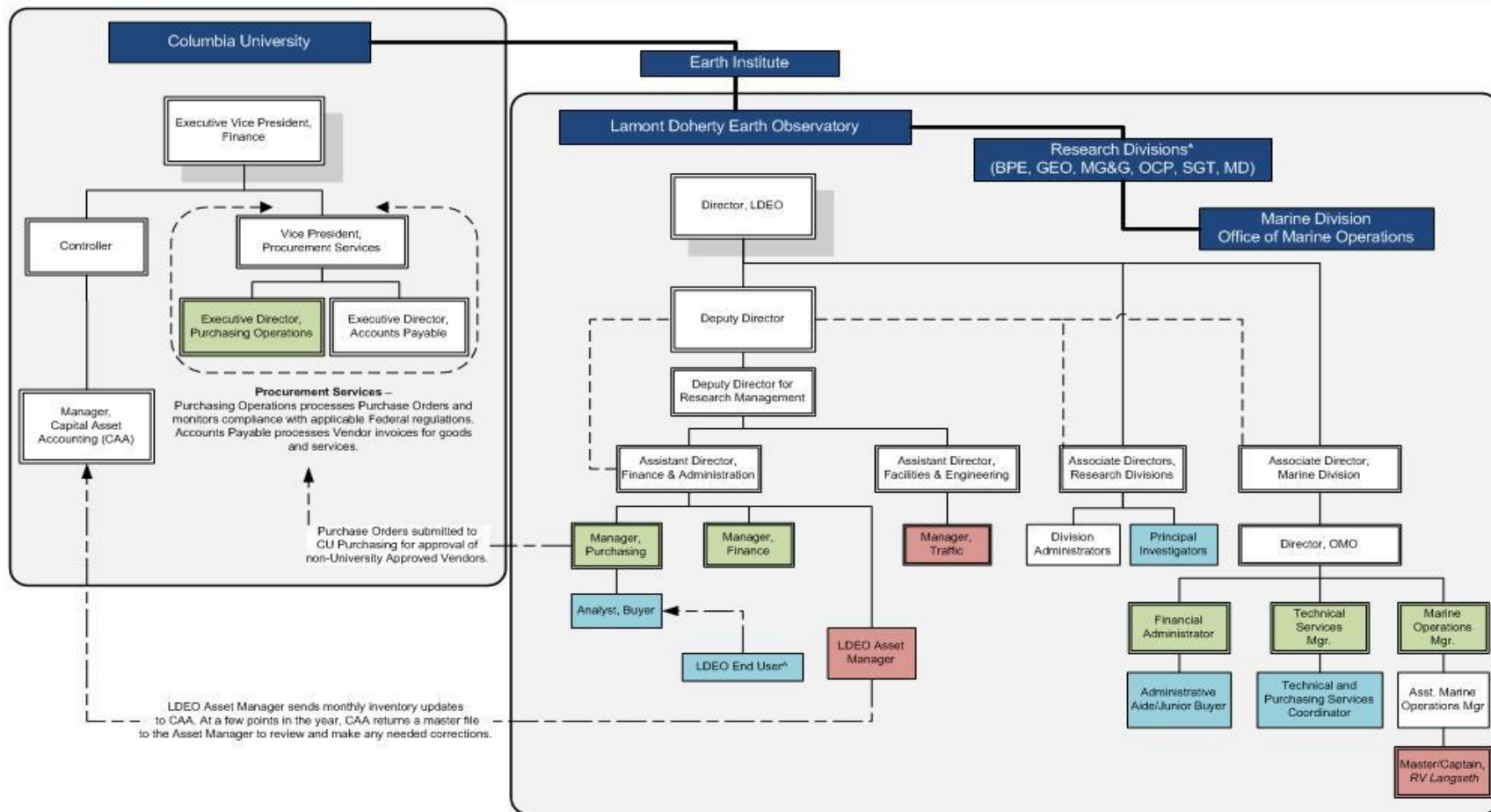
### LDEO Budget Development Organization Chart



LDEO Financial Management and Reporting for the Office of Marine Operations Organization Chart



## LDEO Property, Equipment, and Procurement Organization Chart



### Responsibilities:

- Engaged in acquisition of property and equipment. Principal Investigators and end users typically determine the supplier and LDEO Purchasing determines the appropriate purchasing mechanism and initiates Purchase Orders. Within OMO, the Administrative Aide/Junior Buyer processes incoming requisitions from the RV Langseth, which initiates purchase.
- Required to approve various purchases. For University Approved Vendors (UAVs), LDEO Purchasing is the final approval on Purchase Orders. For any non-approved vendors, CU Purchasing must approve the Purchase Order.
- Responsible for receipt, identification, and tagging of property and equipment. The Ship Captain is responsible for receipt, identification, and tagging of equipment received at the Langseth. The Captain confirms receipt via a shared inventory record and notifies Asset Manager, LDEO of receipt of goods.

### Notes:

- \*LDEO Research Divisions include Biology & Paleo Environment(BPE), Geochemistry (GEO), Marine Geology & Geophysics (MG&G), Ocean & Climate Physics (OCP), and Seismology, Geology, & Tectonophysics (SGT), and the Marine Division (MD)
- <sup>6</sup> An LDEO employee may submit a purchasing request to the LDEO Purchasing

## Key Roles and Responsibilities

Key personnel supporting *Langseth* operations are listed below. A summary of associated responsibilities and reporting relationships can be found on OMO's website, at <http://www.ldeo.columbia.edu/files/uploaded/image/OMO-personnel.pdf>.

### **LDEO Central Administration**

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Director, LDEO  
Deputy Director for Research Mgmt  
Asst. Director, Finance & Administration  
Asst. Director, Facilities & Engineering

### **LDEO Finance & Administration**

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Manager, Contracts & Grants  
Administrative Aide, Contracts & Grants  
Manager of Finance  
Accountant  
Coordinator of Accts. Payable  
Financial Services Assistant  
Travel Services Coordinator  
Financial Analyst  
Manager of Human Resources  
HR Coordinator-Payroll Specialist  
Manager of Purchasing

### **LDEO Facilities & Engineering**

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Property Supervisor  
Manager Safety, Security, Communication  
& Property  
Assistant Manager (Safety & Security)  
Manager of Traffic  
Supervisor of Traffic  
Administrative Aide

### **Earth Institute**

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Director, Finance and Administration

### **Columbia University**

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Director, Sponsored Projects Finance

### **Office of Marine Operations (OMO)**

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Associate Director, Marine Division  
Director, Office of Marine Operations  
Marine Operations Manager  
Technical Services Manager  
Assistant Marine Operations Manager  
Financial Administrator  
Marine Environmental and Safety Coordinator  
Coordinator Technical/Purchasing Services  
Coordinator, Marine Recruitment and Staffing  
Administrative Aide (junior buyer)

### **Langseth Crew**

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Master/Captain  
Chief, Second & Third Mates  
Bosun  
Chief Engineer, First, Second & Third Assistant  
Engineers, & Junior Engineer  
Chief Marine Electrician  
Steward  
Utility  
Oiler  
Cook  
Able-Bodied Seaperson  
Ordinary Sea Person  
Senior Science Officer  
Chief, Marine Sound Source Department  
Chief, Marine IT/Navigation Department  
Science Officer  
Data Technician  
Marine Lab Systems Technician – Level 1  
Systems Analyst/Programmer  
Marine Technician III  
Senior Data Technician 5  
Shipboard Acquisition Assistant

## 4. SHIP ACCOUNT STRUCTURE

### Ship Operations

#### NSF Ship Operations Award OCE12-11494

• For what period is this award effective?	April 1, 2012 – March 31, 2017
• Is this a sponsored project?	Yes, it is a Cooperative Agreement.
• What ARC projects are involved?	GG006777 is the award project, also known as the “prime” project.
• Is each year of the award set up in a separate ARC project?	No. One award project (GG006777) is set up for the life of the Cooperative Agreement.
• Is the award directly charged individual expenses?	No. The award is charged at a daily rate, including a component for the Major Overhaul and Stabilization Account (MOSA).
• To what natural account are direct charges applied to the award?	64255 – LDEO Off of Marine Op Services
• Is ICR charged on the award?	Yes, at a modified rate of 15%, excluding fuel costs and MOSA.
• How is the daily rate applied?	<b>Provisional Ship Day Rate:</b> A provisional ship rate will be calculated at the beginning of the calendar year, defined as the estimated yearly ship costs divided by the estimated number of operating days. <b>Final Ship Day Rate:</b> A final day ship rate will be calculated after the end of the calendar year, defined as the actual operating costs for the year, divided by the actual number of chargeable ship use days.
• How does LDEO recover expenditures charged to the award?	Expenditures are drawn down from the operating project (“Recharge Center”) by means of a cost transfer.
• What happens to any over or under recovery at the end of each calendar year?	Over or under recoveries are carried forward to the following year.

#### Ship Operations Recharge Center, 2012 Award # CU11-3648

• Is this a sponsored project?	Yes
• What ARC projects are involved?	GG0061313 is the operating project, also known as the “scope” project or recharge center.
• Is each year of the award set up in a separate ARC project?	Yes, one project for each calendar year.
• What expenses run through this project?	All of the ongoing costs of operating the ship, including the salaries of certain OMO staff.

• Is ICR charged to the Ship Ops Recharge Center?	No.
• What recoveries offset these charges?	As noted, the NSF and other grants are charged at the direct cost daily rate for use of the ship; the offset to these charges is a credit to the Ship Ops Recharge Center for the <u>non-MOSA</u> portion of the daily rate.
• To what natural account are the recoveries credited?	68205 – Ship Usage-General
• What happens to any over or under recovery at the end of each calendar year?	Rolled forward into the next year's Ship Ops Recharge Center Account, and included in a subsequent year's daily rate.

### **Major Overhaul and Stabilization Account, Award #OCE12-11494 / CU11-3648**

• For what period is this award effective?	April 1, 2012 – March 31, 2017
• Is this a sponsored project?	Yes
• What ARC projects are involved?	GG006777 is the award project, also known as the “prime” project and associated with award OCE12-11494. GG006131 is the operating project, also known as the “scope” project and associated with award CU11-3648 (for 2012).
• Is each year of the award set up in a separate ARC project?	No.
• What expenses run through this project?	All of the major repair and maintenance costs incurred in keeping the ship in good operating condition (e.g., replacing major parts, painting)
• Is ICR charged on the award?	No.
• What recoveries offset these charges?	As noted, the NSF and other grants are charged at the direct cost daily rate for use of the ship; the offset to these charges is a credit to the Ship Ops Recharge Center for the <u>MOSA</u> portion of the daily rate.
• To what Natural Account are the recoveries credited?	68205 – Ship Usage-General
• What happens to any over or under recovery at the end of each calendar year?	Rolled forward into the next year's MOSA Project, and included in a subsequent year's daily rate.

### **Ship Operations Awards from Other Sponsors**

• Is this a sponsored project?	Yes.
• Is the award directly charged individual expenses?	Same as NSF.
• To what natural account are	64255 – LDEO Off of Marine Op Services



direct charges applied to the award?

- Is ICR charged on the award? Dependent on the requirements of the sponsor.
- How is the daily rate applied? Same as NSF.
- What happens to any over or under recovery at the end of each calendar year? **If fixed price:** like any overdraft, any ultimate under recovery must be funded by LDEO; if award exceeds costs charged, funds can be used with NSF permission for any ship related activities. **If cost reimbursable:** same as fixed price for overdraft; unspent funds must be returned to sponsor.

## Technical Services and Marine Mammal Mitigation

### NSF Technical Services/Mammal Mitigation Award #OCE12-14328

- For what period is this award effective? September 15, 2012 – August 17, 2017
- Is this a sponsored project? Yes
- What ARC projects are involved? GG009042
- Is each year of the award set up in a separate ARC project? No. One award project (GG009042) is set up for the life of the award.
- Is the award directly charged individual expenses? No. The award is charged at a daily rate based on the type of service.
- To what natural account are direct charges applied to the award? 64255 – LDEO Off of Marine Op Services
- Is ICR charged on the award? Yes, at a modified rate of 26%. ICR is not charged on subcontracts after the initial \$25,000 or for permanent equipment exceeding \$5,000.
- How is the daily rate applied? At some point following completion of a cruise or cruises, the operating project, or recharge center, is charged each service at an amount equal to the direct cost daily rate multiplied by the number of days the ship was used for the cruise(s) for each service.
- How does LDEO recover expenditures charged to the award? Expenditures are drawn down from the operating project (“Recharge Center”) by means of a cost transfer.
- What happens to any over or under recovery at the end of each calendar year? Over or under recoveries are carried forward to the following year.



## Technical Services & Marine Mammal Recharge Center, 2012 Award # CU11-1785

• Is this a sponsored project?	No, the recharge center is not a sponsored project, although it is housed in the "GG" ARC project chartstring.
• What ARC projects are involved?	GG002890 is the operating project, also known as the "scope" project or recharge center.
• Is there a separate ARC project for each year?	Yes, one project for each calendar year.
• What expenses run through this project?	All of the direct costs incurred in providing technical and marine mammal services.
• Is ICR charged to the Tech Services Recharge Center?	No.
• What recoveries offset these charges?	The NSF award (and any other awards from govt or non-govt agencies) is charged a daily direct cost rate for each day the ship is in use, including travel days. Offsetting that charge is a credit to natural account 68205.
• To what natural account are the recoveries credited?	68205 – Ship Usage-General
• What happens to any over or under recovery at the end of each calendar year?	Over or under recoveries are carried forward to the following year.

## Technical Services/Marine Mammal Awards from Other Sponsors

• Is this a sponsored project?	Yes.
• Is each year of the award set up in a separate ARC project?	Dependent on the requirements of the sponsor.
• Is the award directly charged individual expenses?	Same as NSF.
• To what natural account are direct charges applied to the award?	64255 – LDEO Off of Marine Op Services
• Is ICR charged on the award?	Dependent on the requirements of the sponsor.
• How is the daily rate applied?	Same as NSF.
• What happens to any over or under recovery at the end of each calendar year?	<b>If fixed price:</b> like any overdraft, any ultimate under recovery must be funded by LDEO; if award exceeds costs charged, funds can be used with NSF permission for any ship related activities. <b>If cost reimbursable:</b> same as fixed price for overdraft; unspent funds must be returned to sponsor.

## Oceanographic Instrumentation

### NSF Oceanographic Instrumentation Award #OCE12-16682

• For what period is this award effective?	Annually, with the period start date dependent upon NSF.
• Is this a sponsored project?	Yes.
• What ARC projects are	GG006891

involved?	
• Is each year of the award set up in a separate ARC project?	Yes.
• Is the award directly charged individual expenses?	Yes.
• To what natural account are direct charges applied to the award?	Dependent upon the purchase.
• Is ICR charged on the award?	No.
• How does LDEO recover expenditures charged to the award?	Expenditures are recovered by Columbia University central by processing drawdowns against the letter of credit on a weekly basis, based on actual expenditures.
• What happens to any over or under recovery at the end of each calendar year?	There are no carry forwards (surplus or deficit).

## Shipboard Scientific Support Equipment

### NSF Shipboard Scientific Support Equipment Award #OCE12-17210

• For what period is this award effective?	Annually, with the period start date dependent upon NSF.
• Is this a sponsored project?	Yes.
• What ARC projects are involved?	GG006145
• Is each year of the award set up in a separate ARC project?	Yes.
• Is the award directly charged individual expenses?	Yes.
• To what natural account are direct charges applied to the award?	Dependent upon the purchase.
• Is ICR charged on the award?	No
• How does LDEO recover expenditures charged to the award?	Expenditures are recovered by Columbia University central by processing drawdowns against the letter of credit on a weekly basis, based on actual expenditures.
• What happens to any over or under recovery at the end of each calendar year?	There are no carry forwards (surplus or deficit).

## 5. STANDARD OPERATING PROCEDURES

In addition to the Standard Operating Procedures in this Guide, personnel at LDEO and OMO should be knowledgeable and comply with the following Columbia policies including, but not limited to:

### General Policies

- Administrative Code of Conduct
- Conflict of Interest
- Departmental Authorization Function (DAF) Policy
- Project Administration – Audits
- Procurement Mechanisms Policy
  - Management and Accounting for Moveable Capital Equipment
  - Petty Cash Policy
  - Purchasing Card Policy
  - Sole/Single Source Justification Policy
- Business Expense Policy
- Travel Expense Policy

### Policies Specific to Sponsored Projects

- Charging Administrative and Clerical Salaries to Federal Grants and Contracts
- Charging Office Supplies and Other Administrative Expenses to Federal Grants
- Compliance with Federal Cost Accounting Standards
- Responsibilities of Principal Investigators for Fiscal Oversight of Grants and Contracts
- Sponsored Project Cost Transfers
- Cost Sharing
- Effort Reporting
- Financial Reporting and Closeout of Sponsored Projects
- Participant Support Costs
- Unallowable Costs
- Treatment of Program Income on Sponsored Accounts

Throughout this manual there are references to Columbia University policies and procedures related to financial management and reporting. Listed below are the University websites that financial personnel should be familiar with as they relate to:

- [Columbia University Administrative Policy Library](#)
- [Sponsored Projects Handbook](#)
- [Sponsored Projects Finance \(SPF\) website](#)
- [Sponsored Project Administration \(SPA\) website](#)
- [CU HR Manager Toolkit](#)
- [Faculty Handbook](#)
- [CU Finance Gateway](#)
- [Purchasing Policy Guidelines](#)

- [Finance Division Forms Library](#)
- [CU Effort Reporting website](#)
- [CU Computing, Network, and Information Policies](#)

The topic of financial management of sponsored projects at the University level is covered thoroughly in the [Sponsored Projects Handbook](#); much of the information in this guide is derived from this source. The Handbook addresses the complexities associated with managing sponsored project accounts and the importance of adhering to sound financial management practices for proper stewardship over federal funding. The Handbook covers the following key topics of financial management of sponsored projects:

- Setting up new accounts for awards
- Charging expenditures to sponsored projects
- Assuring compliance with effort reporting and other University policies
- University systems and reports available to assist in monitoring expenditures
- Accounting for U.S. government and non-U.S.-government costs
- Ongoing review of accounts
- Monitoring and reviewing charges
- Monitoring and reviewing project status

## Award Budget Preparation

**Department:**  
OMO/LDEO

**Effective Date:**  
3/31/2011

**Standard Operating Procedures:**  
Award Budget Preparation Process

### **Purpose:**

This Standard Operating Procedure (SOP) describes the award budget preparation processes for Ship Operations, Technical Services, Oceanographic Instrumentation, and Shipboard Scientific Support Equipment per National Science Foundation (NSF) guidelines. As stewards of government funding, Columbia University (CU) encourages careful and well-considered budget development that results in appropriate and optimized use of the resources available that balances operational and research needs with compliance requirements.

### **Definitions:**

CBA	Collective Bargaining Agreements
C&G	Contracts and Grants Office (LDEO)
CMRS	Coordinator, Marine Requirement and Staffing (OMO)
CU	Columbia University
EA	Environmental Assessment
EI	The Earth Institute
FA	Financial Administrator (OMO)
ICR	Indirect Cost Recovery
IHA	Incidental Harassment Authorization
LDEO	Lamont-Doherty Earth Observatory
MEBA	Marine Engineers Benevolent Association
MTDC	Modified Total Direct Costs
MOSA	Major Overhaul and Stabilization Account
NSF	National Science Foundation
OMB	Office of Management and Budget (CU)
OMO	Office of Marine Operations
RASCAL	Research Compliance and Administration System (CU)
RFP	Request for Proposal
OMB	Central University Central University
PI	Principle Investigator
SOP	Standard Operating Procedure
SSSE	Shipboard Scientific Support Equipment Award
UNOLS	University National Oceanographic Laboratory System

### **Process:**

The Lamont-Doherty Earth Observatory (LDEO) internal deadline states all proposals are due to the Contracts and Grants Office (C&G) days before the NSF FASTLANE submission date.

### **Approximate Program Due Dates**

Program Due Dates may change annually at NSF's discretion. The Director, OMO will ensure that LDEO C&G is informed of the up-to-date Program Due Dates for the next award period.

- Ship Operations – November 15

- Technical Services – November 15
- Oceanographic Instrumentation –Dec 15
- Shipboard Scientific Support Equipment (SSSE) –Dec 15

### **Budget Preparation Work Flow:**

- A Co-PI drafts an initial award budget proposal and submits it to the Principle Investigator (PI) and OMO Financial Administrator (FA).
- The OMO FA reviews the budget numbers and the overall completeness of proposed budget. The PI provides revisions as necessary.
- The draft proposal is returned to the Co-PI for revisions as applicable. The revised draft is re-submitted to the PI and FA for review and approval.
- The PI and Co-PI perform a final review and approval and submit to LDEO C&G.
- LDEO C&G Manager reviews the budget for compliance and accuracy and approves in RASCAL. The proposal must be submitted in RASCAL at least two days prior to its due date.
  - Additional approvals in RASCAL are provided by the Director, LDEO and the Director, Finance and Administration, the Earth Institute (EI).
- After the proposal is approved in RASCAL, the OMO FA uploads the proposal to FASTLANE.
- The LDEO Contracts and Grants Manager performs a final review in FASTLANE. If any corrections are required, the LDEO C&G Manager will communicate the required corrections to the OMO FA, and advise that they upload the corrected documents into FASTLANE. The final version is approved by the Director, OMO.
- The LDEO Contracts and Grants Manager provides final certification of the proposal, and releases it to NSF in FASTLANE.

### **Budget Preparation Tasks:**

The budgets are a collaborative effort between the FA, PI, Co-PIs and other staff members. The NSF budget template for ship proposals includes cost categories for personnel costs (salary, wages and fringe benefits), travel, fuel, insurance, food, equipment, subcontracts, and other ship operating expenses. Salary and travel are based on rotation schedules for crew and technicians that comply with the ship schedule. Port stops and fuel prices are taken into consideration when estimating fuel costs.

- The Co-PIs develop the proposals using the appropriate Request for Proposal (RFP) guidelines (e.g., NSF 09-1; NSF 04-052).
- The prior year proposal is used as the template for the current year and is adjusted for current-year UNOL ship schedules, maintenance, operational and scientific needs.
- The Co-PIs, supported by the Coordinator, Marine Requirement and Staffing (CMRS), the Collective Bargaining Agreements (CBA's) and CU Office of Management and Budget (OMB) guidelines to determine salary, fringe and benefit rates to be applied in current-year proposal calculations. Using the cruise and maintenance schedules to determine at-sea days for crew and technicians, the Co-PIs will then determine salary budgets for the proposals.
  - All budgets are based on the UNOLS published Ship Schedule.

- The Co-PIs develop a training plan for the Ship Operations and the Technical Services proposals at the individual staff level. The Co-PIs assign budget resources to support the training plan.
- The Administrative Aide Jr. Buyer, Technical and Purchasing Service Coordinator and the OMO FA is responsible for gathering other supporting budget details, to include estimates, bids, quotes, and rates, as requested by the PI or Co-PIs. They may contact past service providers to determine current rates and quotes for equipment and services.
- The FA obtains current-year ICR rates to be used in the proposals based on the cognizant agency agreement negotiated by the RP&IC and the U.S. Department of Health and Human Services.
- Once the budgets and proposals are complete, they are transferred from the Co-PI to the FA for a review of completeness, accuracy and adherence to University guidelines and Federal requirements.
- The FA notifies the Co-PIs of any problems or corrections; corrections are made if necessary.
- The proposal is reviewed and approved by the PI.
- The proposal is then reviewed by LDEO C&G Manager. While the proposals and budgets are under review, the FA proceeds to prepare a routing sheet in RASCAL.
  - LDEO Contracts and Grants Office Manager also reviews the list of “Current and Pending” sources of funding for the PI and Co-PIs listed on the proposals.
- The PI or FA resolves any issues identified by the LDEO Contracts and Grants Office Manager. The FA makes any necessary changes to the proposals in collaboration with the PI and Co-PIs and a final draft is sent back to LDEO C&G with PI approval.
- Simultaneously, the FA sends a copy of the detailed line item budget proposal to the Director of LDEO, Associate Director, Marine Division, LDEO.
- Appropriate personnel (e.g., PI and/or Co-PI; Associate Director, Marine Division; Director, LDEO; El Director of Finance and Administration) approve the proposal in RASCAL.
- The OMO FA upload the proposal into FASTLANE.
- When the Fastlane information is complete, the OMO FA releases the proposal to the LDEO Contracts and Grants Manager.
- The LDEO Contracts and Grants Manager review the final proposal in FASTLANE and ensure that all appropriate approvals have been made. The LDEO Contracts and Grants Manager, as the Project Officer for Sponsored Projects Administration with delegated institutional authority, submit the proposal to NSF through FASTLANE.

**Escalation Procedures:**

If the proposal preparation does not meet the internal deadlines for review and submission, the LDEO C&G Manager contacts the Director, OMO (PI) and requests resolution. If the Director, OMO is unable to resolve the matter, the C&G Manager will notify the Associate Director, Marine Division for assistance. Continuing problems will be addressed to the Director, LDEO.

**Roles and Responsibilities:**

Roles		Responsibilities		
Title	Office	Process	Review	Approve
Financial	OMO	Assists in budget	Budgets and	



Administrator		development	Proposals	
Co-Principal Investigator	OMO	Prepares proposal and budget		
Director and Principal Investigator	OMO	Uploads proposal to FASTLANE	Proposal and Budget	Proposal and Budget
LDEO Finance Manager	LDEO		Budget	
LDEO Grants and Contracts Manager	LDEO		Proposal and Budget	Proposal and Budget in FASTLANE
Associate Director, Marine Division	LDEO			Proposal and Budget
Director	LDEO			Proposal and Budget
Director, Finance and Administration	EI		Budget	Proposal and Budget

### References:

NSF Cooperative Agreement Financial/Administrative Terms & Conditions:  
[http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=cafatclf212](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=cafatclf212)

Columbia University Policy:

[http://www.columbia.edu/cu/administration/policylibrary/policies/rest/00bb9c641133d05001118f44d30c00006.html?base=responsible\\_office](http://www.columbia.edu/cu/administration/policylibrary/policies/rest/00bb9c641133d05001118f44d30c00006.html?base=responsible_office)

### **Details of the Proposal Budget Development Process**

#### **Ship Operations -Processes for Development of Budget/ Day Rate:**

This section includes the process for developing the budget for the Ship “day rate” used for the Research Vessel (R/V) *Langseth* (“the Ship”). NSF requests a budget based on the estimated total amount of costs required to operate the ship (i.e., sum of salaries, fuel, maintenance and insurance) divided by the number of operating days for the year, which yields the estimated day rate for the Ship. Operating days are defined as the days the Ship is scheduled to be at sea, as tracked by UNOLS.

#### **Quality of Service (Section 4):**

This section includes a brief explanation of quality control improvements proposed for the budget. These should be operational or scientific support improvements, but not maintenance or overhaul (covered in other sections of the budget). Specifically, address how quality control improvements documented in the post cruise assessments are handled. A summary of the results of improvements made in the most recent calendar year is documented in the proposal.

### **Shiptime Costs per Project (Section 5):**

- The Co-PI reviews total cost for the preceding year.
- For the proposal period, the Co-PI identifies projects to be performed using NSF supported Ship time.
- The estimate is based on the number of UNOLS scheduled cruises to support the project multiplied by the day rate that is established in Section 6 in the proposal document.
- The carry forwards and/or deficits from prior years are accounted for to determine the total amount requested.
- If after the proposal is submitted, an increase in Researcher (Lead Scientist) requested operating days may result in a supplemental funding request (budget amendment).

### **Detailed Four-Year Budget (Section 6):**

The proposal budget process starts each October/November. The final proposal budget provides a detailed four-year budget for actual expenditures from the past two years, the current year with an estimate for the 4<sup>th</sup> quarter, and the estimate costs for the proposed year.

The UNOLS ship schedule is used as the basis for planning the proposal budget. The budget is developed using an Excel spreadsheet template developed by OMO (see attached budget template). Using the UNOLS ship schedule as a basis for estimates, various data are input into the template to develop budget estimates. The following sections describe the budget inputs used in developing the estimates. The budget inputs used are compared from year to year against historical data to ensure they are a reasonable basis for preparing the budget.

#### **I. Salaries & Wages**

##### **A. Ship's Company (Crew)**

###### *Overview*

The ship's crew is a mixture of both union and non-union personnel. The Master and Mates positions are under a contract with the Masters, Mates and Pilots Association. The Chief Engineers and Assistant Engineers are under contract with Marine Engineers Benevolent Association (MEBA) District 1. The unlicensed crew is all non-union.

The number of personnel on board at any one time will vary. During underway operations for science programs, during transits, and while in port when the ship is mobilizing or demobilizing there will be a crew of 20 personnel. During extended dockside periods for maintenance and repair crew size is reduced to meet safety and security requirements while carrying out planned maintenance projects; in most cases crew size will be between 10 and 12.

In order to maintain the operating tempo of a regular ship's schedule the crew is rotated on a regular basis. The rotations vary depending on the position and length of the cruise legs. The average rotations are consistent with the practices of other UNOLS operators:

- Captain and Chief Engineers average ~2 months.
- Mates, Asst. Engineers, Chief Electricians and Stewards average ~3 months.
- Unlicensed crewmembers average ~3 months.

Once signed off the ship, crewmembers use their accumulated shore leave. When all shore leave has been taken, crewmembers assume an unemployed status receiving no additional compensation.

### *Salaries*

Salaries consist of base wages for ship's personnel. The Co-PI determines the budget based on the number of operating days per the UNOLS ship schedule. The number of full time employees (FTE's) is based on a monthly estimate of the number days that the crew is scheduled to be on the ship. The Captain may be scheduled up to 60-70 continuous days and Crew 90 days. The crew usually consists of approximately 20 individuals. The number of FTEs is reduced when the Ship is in port for an extended period. The full crew is recommended to be on board a minimum of 1 day before the ship sets sail. The percentage of FTE per month is calculated based on number of work days scheduled for each position during the year. Based on the ship's operating schedule, an annual schedule for each position is established as the basis for crew costs.

Budget Monitoring Metrics:

- Days worked
- Hours worked

### *Overtime*

There are three components that make up the overtime line:

#### 1. Standard Overtime

Overtime is received by the Chief Mate, Second Mate, Third Mate, Able Seamen, Ordinary Seamen, First Asst. Engineer, Second Asst. Engineer, Third Asst. Engineer, Oilers, Junior Engineer, Marine Electrician, Steward, Marine Cook and Galley Utility. Overtime is projected at ~16 hours per crew member per week in all departments while the ship is underway. While the ship is in port for a maintenance period the overtime is projected at 10 hours per week per crewmember.

The current shipboard workweek is 8 hours per day, 7 days per week. Overtime is paid for work performed in excess of 8 hours in any 'one' day and for work on holidays. The primary purpose for overtime is for maintenance of the ship while underway or in support of science operations.

Budget Monitoring Metrics:

- Overtime hours

#### 2. Compensation or "Comp" time

Comp time is paid to the captains and chief engineers. The Captain receives a total of \$4,000 as "comp" time per year. The Chief Engineers receive 1 hour "comp" time each hour worked in excess of the normal 8 hour work day and they receive one hour of comp time for each hour worked on a weekend day while the ship is in port.

Budget Monitoring Metrics:

- Hours worked

### 3. Sea Pay Bonus

The captains and mates under their contract receive a sea pay bonus. No fringe is charged on the sea pay bonus by Columbia and the union seeks no benefits payments from Columbia for the sea pay bonus.

Vacation/ Non Watch Differential:

- Captains accrue 18 days of vacation for every 30 days on board.
- Mates accrue 16 days paid vacation for every 30 days on board.
- Unlicensed crew accrue 15 days paid vacation for every 30 days on board.
- Chief Engineers accrue 12 days paid vacation and 6 days of 'non-watch differential' for every 30 days onboard. "Non-watch differential" is paid in lieu of 18 days paid vacation for every 30 days on board. The 'non-watch differential' day is paid at the same rate as a vacation day.
- Assistant Engineers accrue 10 days paid vacation and 5 days of 'non-watch differential' for every 30 days on board. This is in lieu of 15 days paid vacation for every 30 days on board. The 'non-watch differential' is paid at the same rate as a vacation day.

Budget Monitoring Metrics:

- Days onboard

#### **B. Marine Operations and Facility Staff**

Salaries and wages are included for Marine Operations and Facility Staff. LDEO Human Resources email confirmation of salary and fringe amounts to the OMO FA. The prior year salaries and fringe benefits charged to the ship operations award are increased by 3% and used as the budgeted amount.

### **II. Repair, Maintenance & Overhaul:**

- A.** Maintenance & Repair is based on historical averages, regular maintenance requirements and identified new needs.
- B.** Major Overhaul and Stabilization Account (MOSA): Project tasks and costs are estimated for the following five-year period. The annual average of the five-year period is included as the budgeted amount. Project tasks for the five-year period are updated annually.

### **III. Other Expenses**

#### **A. Fuel & Lube Oil**

Budget is calculated by multiplying the number of days by the consumption per day by the estimated fuel price supplied by destination port fuel brokers. Cost is determined by brokers' current rate at time of proposal multiplied by the number of gallons of fuel needed as projected based on prior cruises. There are 6 types of fuel.

The fuel budget is a function of fuel consumption based on the type of science being scheduled and the cost of fuel in port calls. OMO works to manage these costs by taking maximum quantities of fuel in ports where the cost is low and minimizing the fuel taken in ports where fuel costs are high. Fuel consumption for the *Langseth* is estimated based on the following modes of operation:

Full speed with 2 ME's on the line

4200 gpd

Cruising speed ~10.5 kts	3300 gpd
2-D MCS	3300 gpd
Hybrid 3D (two streamers being towed using paravanes)	5300 gpd
3-D MCS	5300 gpd
Inport	500 gpd

Navy contract prices are used in for projecting the fuel budget in those ports where Navy fuel is available. For those ports where Navy fuel is not available, current commercial prices are used. Prices are provided by a fuel broker.

**Budget Monitoring Metrics:**

- Fuel price
- Operating days per operating mode
- Gallons per day

**B. Food**

Cost per day is determined by the number of persons on ship based on a \$22/day historical average.

**Budget Monitoring Metrics:**

- Average food cost per day
- Operating days
- Number of persons onboard

**C. Insurance**

The budget is based on estimates provided by an insurance broker who reviews coverage and experience based on claims made. Co-PI receives estimates for renewal and meets with the broker, Columbia University’s central Risk Management Office and the OMO Director to determine sufficient coverage.

**D. Stores**

The budget for deck and engineering supplies used for maintenance, light bulbs, and paint is based on historical costs and estimated usage. The following costs are included:

- Deck Supplies – For the vessel's topside and deck equipment including expendable stores. These items include hand tools, sandpaper, grinding discs, brushes, line, shackles, container securing hardware, chains, turnbuckles, etc.
- Paint – Includes paints, thinners, and solvents associated with painting.
- Safety Equipment – Safety-related equipment for maintenance of major equipment and expendable types of items including safety glasses, parts for SCBA’s, safety harnesses, respirators and filters, fire-hoses, etc.
- Navigation Supplies – Parts for navigation equipment and expendable items for use in the navigation of the ship including charts, publications, and Navtex printer paper.
- Communication Supplies – Includes expendable materials and parts associated with the ship’s GMDSS equipment, Inmarsat C, EPIRBs, and other VHF or SSB transceivers.

- Computer Supplies – Includes parts, software and materials to support computers used by ship's crew to support ship operations.
- Medical Supplies – Medical inventory including medications as recommended by contracted medical care service,
- Engineering Supplies – Expendable material for day-to-day use and parts used for preventive maintenance and repair including bearings, seals, O-rings, nuts, bolts, filters, injectors, tools, etc.
- Electrical Supplies – Expendable materials for day-to-day use and parts maintained in inventory related to electrical equipment including light bulbs, light fixtures, electrical wiring, outlets, circuit breakers, electrical boxes, etc.
- Hydraulic Supplies – Expendable materials for day-to-day use and parts maintained in inventory for ship's hydraulic systems including hydraulic hose, hose fittings, hydraulic fittings, valves, etc.
- HVAC Supplies – Expendable items and parts for day-to-day use in ship's heating, ventilating and air conditioning systems including Freon, refrigeration gauges, filter media, parts for repair of air conditioning compressors.
- Compressors Supplies – Expendable items and parts for day-to-day use with the seismic air system.
- Janitorial – Materials and supplies used to maintain overall cleanliness of exterior and interior of the ship.

#### **E. Travel**

The Co-PI estimates using the geographic locations of personnel , length of days at sea, number and geographic location of port calls and cost of travel to the port call, and including rotation of crew and staff. Airline tickets and transportation to and from the ship are determined based on the number of trips back and forth to the ship. PIs and Co-PIs use the government per diem rate to estimate travel costs.

OMO's practice is to rotate Captains and Chief Engineers at ~2 months and licensed officers at approximately 3 months. Unlicensed personnel are rotated every ~3 months (Note: In lieu of sailing short, relief crew will be hired for a shorter than normal rotation to insure sailing with a full complement as required by OMO's Certificate of Inspection - COI).

Travel costs are budgeted as follows:

- Rotations of crew – These tickets are all one-way economy class. Relief of crew members is staggered on a port-to-port basis to insure continuity of personnel in all departments. All travel for crew rotation is based on one day of travel per person unless otherwise noted.
- Attending vessel during port call – Such travel is based on maintenance, support requirements for debarking and embarking scientific parties, equipment casualties and planning for overhauls. These visits are budgeted throughout the year for Marine Superintendent and/or Port Engineer. These tickets are for round trip and coach class.
- Other travel – This includes attendance of RVOC, and other professional meetings, NSF, manufacturers, and prospective shipyards. All projected airfares are based on refundable tickets.

#### **F. Shore facilities**

Shore side estimated costs to support the vessel are based on historical costs. This estimate is based on the number of at shore days, freighting, telephone, mail, communication, email are examples of shore facility costs.

#### **G. Miscellaneous**

Miscellaneous costs include items such as professional services, advertising, legal bills, mechanical charges, port fees, rental equipment, rubbish removal, HAZMAT disposal, architect fees, ship agent fees, other service related items are based on quotes, proposals, or historic averages.

The following costs, when incurred, would be included under III-G Miscellaneous Costs:

- Consultant Services – External specialized services for issues related to a technical problem or system related problems (for example costs associated with consultant services, such as may be related to maritime security).
- Naval Architect and Marine Engineering – Services which could fall under Consultant Services, however for budget purposes they are identified separately.
- Vessel Clearance – Costs associated with clearing a vessel 'in and out' of port, including customs, immigration, agriculture and other similar government requirements.
- Crew Medical – Costs associated with drug screen, physicals, treatments and communication for underway care.
- Inspections – Costs associated with inspection costs necessary to meet regulatory and classification society requirements, including ABS inspections, surveys/plan review, and FCC required communications inspections. Although there are no fees charged by the U.S. Coast Guard for inspections by their personnel, inspections of safety equipment by approved commercial contractors are included (e.g., life rafts and firefighting systems).
- Agent Services – Fees charged by ship's agents who arrange all port services while the Langseth is on a port call.
- Dockage – Berthing of the vessel when in port.
- Canal Dues – Fees charged by authorities when a ship transits a canal such as Panama or Suez Canals.
- Port Services – Pilotage 'in and out' of port, tug service (if required), watchmen (if required by port regulations), potable water, electric service (if available), trash/garbage, launch service (if the ship is anchored out), crane or forklift service and laundry.
- Bank Charges – Charges associated with wiring of funds or changing of funds to foreign currency.
- Storage costs – Costs associated with temporary storage of equipment in outlying ports.
- Recruiting – Costs associated with advertising and, in some instances, incurring fees by recruiting agencies to obtain qualified crew.
- Rentals – Car rentals during a port call, or rental of unique pieces of equipment (having a one-time requirement) are billed against this line. Vehicles are not rented for each port call, although in instances where the ship may be in for a week or more, vehicle rentals are considered. An example of a unique piece of equipment, OMO had to rent two large fan-forced air heaters to create a heat load in order to fully test the operation of the air conditioning system.



- Training – All costs associated with training to meet regulatory requirements and maintain the professional capabilities of the ship’s crew and those members of the staff supporting ship operations. Training for medical, safety and equipment is estimated based on actual cost for the prior year, on the type of training and the number of crew and staff. Training costs include tuition, travel and per diem.

**Daily Rate Calculation:**

All of the items above contribute to the Total Operating Cost which is divided by the number of operating days to determine the new Daily Rate for Operations.

**Insurance and Inspection:**

*Insurance*

This section includes a listing of types of insurance (Property and Indemnity, Towing, Pollution, and Salvage) limits, deductibles and estimated cost.

- Coverage must conform to NSF/Office of Naval Research guidelines set forth in the Insurance Policy letter effective, March 18, 1993 held by Columbia University’s Risk Management Office.
- Current Proof-of-Insurance certificates including premium, limits of coverage, deductible, broker, date of expiration and underwriter are appended to the proposal. The proposal will not be processed without this information.

*Inspection*

This includes a “Summary of Recommendations” of the most recent NSF or Navy Inspection.

- Details on the action taken and progress to date on the recommendations must be included.

**Indirect Cost Rate (ICR):**

A 15% indirect cost rate is applied to the modified total direct costs (MTDC). MTDC does not charge ICR on Fuel & Lube Oil and Major Overhaul and Stabilization Account (MOSA).

**Proposed Year Cumulative Budget:**

This budget shows the actual amount requested from NSF. The carry-forwards are backed out of the total. Program Income from other sources, such as: United States Geological Survey (USGS), National Ocean and Atmospheric Administration (NOAA), Navy, or a foreign government, are deducted to arrive at the net NSF funds requested.

**Required Appendices:**

- Budget justification
- Quotes, certificates of insurance
- NSF and Navy inspection recommendation

**Technical Services (includes Mammal Mitigation):**

Technical services awards provide for scientific equipment, computers and salary support for technicians who support the scientific activity on the ship and partial support for the Marine Environmental & Safety Coordinator and the Chief Scientist. Equipment includes bridge instrumentation that is integrated into

the data logging system; cameras to monitor deck operations; intra-ship communications networks; a shipboard wide network and computing infrastructure, which is interfaced into the real-time ethernet system supported through data logging efforts; vessel supported sampling equipment; and specific instrumentation.

- The Co-PI uses the UNOLS ship schedule and technical personnel on ship to determine the costs for the budget for the proposal using Excel.
- The Co-PI obtains the salary and fringe benefits amounts from the FA, who confirms the amounts with LDEO Human Resources. The Technician's salary is estimated and segregated for "At-sea and ashore effort" to estimate costs for the proposal.
- Travel is determined by the number of anticipated trips to/from the ship (e.g., 5 roundtrip tickets for LDEO staff, 7 for contractors) and the number of technical personnel required on board to support scientific operations. The travel is segregated by foreign and domestic travel, and estimates the number of trips depending on Port calls and UNOLS schedule.
- Base cost factors for technical services are derived from two preceding years and current year historical data for the R/V *Langseth* and take into consideration the condition of the equipment (new, refurbished, and used). Other factors include time at sea and in port. Rate formulas (multipliers) also consider months of operation and number of streamers deployed.
- Specialized Instrumentation is estimated for Single and Multi source cable.
  - The budget is handled for both and includes some projected increases in costs from previous year.
  - Quotes related to services, licensing and equipment, contractors, storage and consultants are obtained.

#### **Marine Mammal Mitigation Service:**

- Consultants are hired for visual and acoustic observing.
- The Co-PIs send the UNOLS cruise schedule to environmental consultants. The consultants provide quotes.
  - Costs for permits and consultants are estimated based on cruise location.
  - Cost estimates for Environmental Assessment (EA) and IHA (Incidental Harassment Authorization) are based on effort involved in researching biological information.
  - Costs include time and out-of-pocket expenses expended on the performance of the agreed tasks.
  - The Co-PIs receive an Excel spreadsheet from the consulting firm which details all of the estimated costs, including hourly rate by consultant.
- After all consultant estimates are reviewed, the Co-PI develops a spreadsheet to estimate all of the other costs related to salaries, other direct costs, and travel.
  - Salaries are budgeted based on effort months.
  - Travel is determined by the number of potential trips based on UNOLS schedule.
- A 26% indirect cost rate is applied to the modified total direct costs (MTDC). MTDC does not charge ICR on subcontracts after the initial \$25,000 and for permanent equipment exceeding \$5,000.

**Oceanographic Instrumentation:**

- Instrumentation to support science and technology capabilities of the ship including upgrades to servers, software and lab instrumentation.
- The instrumentation purchased under this proposal must cost \$5,000 or more per single unit or a total of \$5,000 or more for multiple parts that fit together to make a system including:
  - New equipment or upgrades to existing instrumentation.
  - Instrumentation that is less than the \$5,000 capitalization threshold is included in the operating budget.
- All estimates in the proposal are based on quotes and bids.
- No historical costs are used for estimates.
- No personnel or ICR costs may be requested in the proposal.

**Shipboard Scientific Support Equipment (SSSE):**

Funds are requested from NSF to improve safety and enhance scientific capabilities and productivity of the *R/V Marcus Langseth*. Equipment requests include: Deck, Navigation, Communication and Other Equipment. Consultants can be hired to assess winch and deck space needs to improve the general-purpose capabilities of the vessel. For 2011, a study was performed by Glosten Associates who provided a plan to be completed in two or more phases that coincide with future annual award periods. Some of the equipment in the 2011 proposal was identified as recommendations in the study. In addition, there are other equipment requests to support the ship, (e.g., Science Work Boat, a new work van and other items).

- All estimates in the proposal are based on quotes and bids.
- No historical costs are used for estimates.
- No personnel or ICR costs may be requested in the proposal.

**Document History:**

Date	Name	Action	Notes
3/31/2011	Various	Created	
11/08/2012	J. Tallon	Revised	Incorporates changes due to 2012-2017 Cooperative Agreement

## Monitoring Grant Expenditures

**LDEO Department:**  
Office of Marine Operations

*Effective Date:*  
3/31/2011

**Standard Operating Procedures:**  
Monitoring Grant Expenditures

### **Purpose:**

To describe OMO's procedures for monitoring direct cost expenditures, including allowable costs, for sponsored projects. To ensure compliant financial management of sponsored projects, in accordance with the Columbia University Sponsored Projects Handbook, the sponsored projects terms and conditions, and NSF regulations.

### **Definitions:**

AA	Administrative Assistant
ARC	Accounting and Reporting at Columbia - Online system that allows for the creation, approvals routing, and transmission of financial data
FA	Financial Administrator (OMO)
LDEO	Lamont-Doherty Earth Observatory
NSF	National Science Foundation
OMO	Office of Marine Operations
PI	Principal Investigator
SOP	Standard Operating Procedure
SPF	Sponsored Project Finance (CU)

### **Guidelines:**

- PIs manage their projects and monitor monthly activity through ARC, source documents, and open commitments.
- The OMO FA, PI, and Co-PIs follow the Columbia University's Sponsored Projects Handbook for monitoring and reviewing:
  - Salary and fringe benefit charges
  - Vendor invoices
  - Subrecipient charges
  - Service center charges
- Allowable costs must meet the following requirements:
  - Reasonable and necessary to achieve the awards goals and objectives.
  - Allocable to the sponsored projects under A-21 cost principles.
  - Consistently treated through application of the generally accepted accounting principles appropriate to the circumstances.
  - Allowable in accordance with the terms and conditions of the award.
  - Limited to the funds awarded to the project.
- PIs roles and responsibilities for monitoring expenditures on awards can be found in the Columbia Faculty Handbook and the Sponsored Projects Handbook.
- For more information on preparing monthly reports for NSF, see the SOP on Financial Reporting.

## **Process:**

An allowable cost must serve the outlined research or program purpose of a sponsored project, must be permissible according to Columbia's policies, and must comply with Federal regulations as well as to the specific terms and conditions of a sponsored project. Allowable costs generally fall into a variety of categories such as: salary, fringe benefits, equipment, travel, materials and supplies. Resources for understanding cost principles governing allowable costs are listed below; SPF can provide additional guidance on allocability and allowability of costs.

## **PI Responsibilities**

- The PI is required to exercise financial oversight during all stages of the procurement and receiving process, and to review reconciled expenses.
- During requisition of an item, the PI exercises oversight during the following steps:
  - The originator (i.e., the individuals participating in the sponsored projects, who seeks to purchase something) submits the requisition to the PI or Co-PI.
  - PI or Co-PI reviews and approves accordingly the originator's requisition.
- Once the item has been requisitioned, the PI continues to exercise oversight in the project reconciliation process:
  - The PI has inquiry access to the financial systems regarding the transactions related to the award.
  - In addition, the FA provides the PIs with a monthly, multi-purpose Excel file which contains budget to actual transaction details from ARC.
  - The FA assists the PI in these duties by reviewing the transactions to determine allowability, allocability and reasonableness as well as consistent application.
- One week after the end of every monthly accounting cycle, the FA provides the PI and Co-PIs with a monthly financial report for ship operations, technical services, which includes marine mammals, shipboard scientific support equipment (SSSE), and oceanographic instrumentation.
  - This Excel file is a budget to actual by month with detailed tabs indicating all the charges to that award.
  - The FA will provide to the PI an analysis of the variances on any award, to include identifying significant pending charges on the awards.
- The PI reviews these charges to ensure that they meet the requirements in the terms and conditions of the award.

## **Institutional Controls**

- In addition to the oversight exercised by the PI and OMO, LDEO has established controls within the LDEO Finance and Administration Department to review and evaluate expenditures. These processes are documented in other SOPs within this guide. Managers within LDEO perform the reviews and evaluations based on assigned roles and responsibilities:
  - LDEO Finance Manager reviews personnel costs, invoice payments, and expense allocations.
  - LDEO Purchasing Manager reviews requisitions and contracts.
  - LDEO Contracts and Grants AA reviews travel .

**Escalation Procedures:**

- Each reviewer at LDEO Finance and Administration will contact the PI or the OMO FA if there are issues regarding the allowability and allocability of any expense.
  - If an expense is determined to not be allowable or allocable to the grant, it will be moved to the proper project.
- If the Managers within LDEO Finance and Administration identify recurrent issues regarding the appropriateness of expenditures, they will advise the Assistant Director, Finance and Administration, and the Associate Director, Marine Division.

**Roles and Responsibilities:**

Roles		Responsibilities		
Title	Office	Process	Review	Approve
Financial Administrator	OMO	Prepare and submit monthly budget to actual reports to PIs		
Principal Investigator	OMO		Confirmation of accuracy of charges	Requisitions
Finance Manager	LDEO		Personnel charges, invoices, expense allocations	
Purchasing Manager	LDEO		Purchase requisitions	
LDEO Contracts & Grants AA	LDEO		Travel	

**References:**

OMB Circular A-21, “Cost Principles for Educational Institutions

[http://www.whitehouse.gov/omb/circulars\\_a021\\_2004](http://www.whitehouse.gov/omb/circulars_a021_2004)

<http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/>

<http://policylibrary.columbia.edu/compliance-federal-cost-accounting>

<http://policylibrary.columbia.edu/project-administration-unallowable-costs>

The CU policy titled “Principal investigator Responsibilities for Financial Oversight of Grants and Contracts” outlines University-wide expectations for prudent financial management of sponsored projects by Principal Investigators. <http://policylibrary.columbia.edu/principal-investigator-responsibilities-financial-oversight-grants-contracts>

NSF Cooperative Agreement Financial/Administrative Terms & Conditions:  
[http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=cafatc1010](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=cafatc1010)

Columbia University Sponsored Project Handbook:  
<http://evpr.columbia.edu/content/sponsored-projects-handbook>

VII. Financial Management of Sponsored Projects, F. Monitoring and Reviewing Charges

**Document History:**

Date	Name	Action	Notes
3/31/2011	Various	Created	
10/19/2012	J. Tallon	Revised	Reflects changes due to ARC and 2012-2017 Cooperative Agreement



## Financial Reporting

**LDEO Department:**  
Office of Marine Operations

*Effective Date:*  
3/31/2011

**Standard Operating Procedures:**  
Financial Reporting

### **Purpose:**

This Standard Operating Procedure documents the financial reporting processes for the Office of Marine Operations (OMO). This includes processes for developing the monthly internal financial reports, the quarterly reports to the National Science Foundation (NSF), the University's aggregate Federal Financial Reports (FFR) and the annual financial report to NSF.

### **Definitions:**

ARC	Accounting and Reporting at Columbia. Online system that allows for the creation, approvals routing, and transmission of financial data
CMRS	Coordinator, Marine Recruitment and Staffing (OMO)
EI	Earth Institute
FA	Financial Administrator (OMO)
FFR	Federal Financial Report
LDEO	Lamont-Doherty Earth Observatory
MOSA	Major Overhaul and Stabilization Account
NSF	National Science Foundation
OMO	Office of Marine Operations
PI	Principal Investigator
SPF	Columbia University Sponsored Projects Finance

### **Guidelines:**

- Monthly reports for all awards are summarized to show budget vs. actual expenses and are for internal use.
- The quarterly financial report for the NSF Ship Operations award is submitted to NSF through Fastlane. The quarterly reports are submitted around the 15<sup>th</sup> of the month following the quarter end date, and are reviewed and approved by the Lamont-Doherty Earth Observatory (LDEO) Financial Manager, the University's Director of Sponsored Projects Finance (SPF), and the Earth Institute (EI) Director of Finance and Administration.
  - See OMO Quarterly Reporting SOP
- The quarterly Federal Financial Reports are an aggregate of University-wide NSF grants, and justify the total cash drawn down for NSF projects through the previous quarter.
- Annual Financial Reports represent a section of the annual proposal submitted to NSF. This proposal includes budget to actual expenditures for the two preceding years, projected expenditures for the current year, and estimated, or proposed expenditures for the next year.

### **Process:**

#### Monthly Internal Financial Reporting

- Each month OMO will analyze budget variances and report any that exceed 10% of the budgeted category or \$50,000 to NSF. If the variance analysis suggests that a budget modification is necessary OMO staff will take appropriate action as soon as the need is identified.

- The OMO Financial Administrator (FA) creates an excel “Monthly Report” using data downloaded from ARC (i.e., open commitments, transactions and payroll). In order to obtain a program budget, these reports are formatted to match the detail lines in the proposal to NSF.
- The FA reviews charges for the month, verifying that they are allowable and allocable in accordance with the award requirements and NSF terms and conditions. Discrepancies are adjusted on the report and promptly corrected in ARC.
- The FA sends the excel file to the Principal Investigator (PI) and Co-PI’s. The PI and Co-PIs review the detailed transactions for appropriate allocation to the award. If there’s an adjustment needed, they notify the FA immediately who then processes the cost transfers.
- Upon final documented approval by the PI and Co-PIs, the FA will note any adjustments on the excel file and forward to the LDEO Finance Manager. The FA will monitor the next month’s transactions to ensure that the transfers were accurately completed (See the Cost Transfer Standard Operating Procedure).
- For the Ship Operations and Technical Services monthly internal reports the LDEO Finance Manager will review for accuracy.

#### Monthly Travel Summary (Ship operations only)

- The OMO Coordinator, Marine Recruitment and Staffing (CMRS) reviews the invoices from the travel agency for the month based on the dates of travel, and compiles travel activities for Ship personnel (i.e., a number of air travel tickets) by the following attributes and provides it to OMO Director:
  - Month and arrival and departure dates
  - Port
  - Arriving crew
  - Departing crew
  - Purpose of the trip
- The OMO Director reviews the compilation for accuracy, finalizes and approves the report. The monthly travel reports are compiled into a quarterly report which is submitted as part of the NSF quarterly report via Fastlane.

#### Quarterly NSF Reporting

OMO utilizes the quarterly report format provided by NSF. The report provides prior year actuals (with the exception of the Major Overhaul and Stabilization Account [MOSA], which is reported at the approved budgeted amount), the current year proposal budget and actual expenses by calendar year quarters. See the OMO Quarterly Reporting Standard Operating Procedure for more detailed information on this process.

- The OMO FA prepares the quarterly report using data downloaded from ARC.
- The LDEO Finance Manager reviews the report for accuracy and emails it to the LDEO Assistant Director for Finance and Administration, SPF Director, and EI Director of Finance and Administration.
- The LDEO Assistant Director for Finance and Administration, SPF Director, and EI Director of Finance and Administration review and approve the report and notify the PI via email of the approval. If there are any questions, the PI must respond to and resolve prior to obtaining approval.

- The PI uploads the approved report into Fastlane around the 15<sup>th</sup> day of the month following the quarter end date.

#### Quarterly Federal Financial Report (FFR) / SF-425

- On a quarterly basis, the SPF Accountant completes an aggregate Federal Financial Report (SF-425/FFR), justifying total cash drawn down for NSF projects through the previous quarter.
  - A Federal Financial Report (FFR) is a statement of expenditures prepared by SPF and sent to the federal sponsor of a grant or contract.
- The quarterly FFR requires, as backup, a break-down of expenditure activity for each and every NSF grant for which there has been expenditure or draw down activity in the represented quarter.
- The SPF Accountant presents prepared FFR to SPF Director for review and approval.
- The SPF Accountant submits approved Quarterly FFR/SF-425, as well as required project-by-project expenditure detail using the Fastlane Financial Administrative System.

#### Annual Financial Reports

- Annual budget to actual financial reports are compiled by the PI using data downloaded from ARC for the preparation of the budget for the following year. See the OMO Award Budget Preparation Standard Operating Procedure for more detailed information of this process.
- Annual reports in the proposal are reviewed by LDEO Contracts & Grants Manager and then sent for approval to the LDEO Assistant Director of Finance & Administration, EI Director of Finance and Director of SPF before the submission to NSF.

#### **Escalation Procedure:**

If any task is not completed, the LDEO Finance Manager contacts the OMO Director and FA.

#### **Roles and Responsibilities:**

Roles		Responsibilities		
Title	Office	Process	Review	Approve
Financial Administrator	OMO	Prepare Expense Tracking; Prepare Monthly internal and Quarterly NSF financial reports	Monitors project finances and Annual NSF reports	
Principal Investigator	LDEO	Prepares Annual NSF financial reports	Monitors project finances and Monthly and Quarterly NSF financial reports	Monthly and Quarterly NSF financial reports
Marine Recruitment and Staffing Coordinator	OMO	Compile travel expenses		
Finance Manager	LDEO		Monthly internal and Quarterly NSF financial reports	

Assistant Director Finance & Administration	LDEO		Quarterly and Annual NSF financial reports	Quarterly and Annual NSF financial reports
Director Finance & Administration	EI		Quarterly and Annual NSF financial reports	Quarterly and Annual NSF financial reports
Director	SPF		Quarterly and Annual NSF financial reports; Quarterly FFR/SF-425 financial reports	Quarterly and Annual NSF financial reports
Accountant	SPF	FFR/SF-425 preparation and submission		

**References:**

NSF Cooperative Agreement Financial/Administrative Terms & Conditions:  
[http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=cafatclf212](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=cafatclf212)

OMO Award Budget Preparation Standard Operating Procedure

OMO Cost Transfer Standard Operating Procedure

OMO Quarterly Reporting Standard Operating Procedure

**Document History:**

Date	Name	Action	Notes
3/31/2011	Various	Created	
10/19/2012	J. Tallon	Revised	Reflects changes due to ARC and the 2012-2017 Cooperative Agreement
12/05/2012	E. Soergel	Reviewed and revised	Cross-referenced with related SOPs for consistency

## Indirect Costs

**LDEO Department:**  
Office of Marine Operations

*Effective Date:*  
3/31/2011

**Standard Operating Procedure:**  
OMO Indirect Costs

### **Purpose:**

To document the procedures for verifying Indirect Cost Recoveries charged to the Office of Marine Operations' federal grants.

### **Definitions**

ARC	Accounting and Reporting at Columbia
FA	Financial Administrator (OMO)
ICR	Indirect Cost Recovery
LDEO	Lamont-Doherty Earth Observatory
MOSA	Major Overhaul and Stabilization Account
MTDC	Modified Total Direct Costs
OMO	Office of Marine Operations
PI	Principal Investigator
PIN	Project Information Notification
SPF	Sponsored Projects Finance

### **Process:**

The University recovers indirect costs (Facilities and Administrative costs) from sponsors through the application of the negotiated indirect cost rates. Certain costs, i.e., purchases of equipment, subcontractor costs after the initial \$25,000, are excluded from the base used to calculate the Indirect Cost for individual awards. The University negotiates its indirect cost rate every four years with the Department of Health and Human Services as the cognizant agency. The rates may change within this four year fiscal period. The current rates are available on the Controller's Office – Research Policy and Indirect Cost Office website.

The Ship Operations Award collects indirect cost recovery from the sponsor at a rate of 15% on everything other than Major Overhaul and Stabilization Account (MOSA) and fuel expenses. The indirect cost recovery is collected for the Marine Mammal Award and the Technical Services Award, using the Columbia University Off-campus rate. The University Accounting and Reporting at Columbia (ARC) system calculates and tracks indirect costs using natural accounts 9500 - 9555 - F\*A Deduction Government Allocation on the individual award/departmental level.

### **Indirect Costs:**

The indirect cost rate is automatically calculated and applied in ARC as the system updates several times a day.

- For the Marine Mammals and Technical Services Award the rate is the current Off-campus rate.
- Where LDEO/OMO has issued a subaward, the University receives indirect cost recovery on only the initial \$25,000 of direct costs on the subaward. For all subaward costs greater than \$25,000, the system does not calculate indirect cost recovery. The department allocates subcontract expenses to

the appropriate natural account (ie: 40XX for expenses up to \$25k, and 41XX for expenses exceeding \$25k).

- During Account closeout, Sponsored Projects Finance verifies the indirect cost recovery charged to a grant. The process for determining the Modified Total Direct Cost (MTDC) is as follows:
  - Identify the award option code, located on the most current Project Information Notification (PIN )
  - On the ARC project statement for a given project, highlight all natural account and amounts that are excluded from the grant’s option code as indicated by the Exclusion Table
  - Total all exclusions and subtract from reported direct cost total; this is the MTDC
- When the monthly and annual financial reports are prepared, the indirect cost recovery (ICR) is reviewed by the OMO FA to ensure that the natural accounts which should be excluded are, and that the ICR rate is accurately applied to overhead bearing natural accounts.
- For the monthly and annual financial reports, the PI reviews the indirect costs recovery amounts to confirm that the costs are accurate.

**Escalation Procedures:**

If the OMO FA or PI identifies an indirect cost recovery charge which appears to be erroneous, they will notify the Manager, Contracts and Grants, LDEO, who will notify Sponsored Projects Finance and request that the charge be reviewed and/or corrected.

**Roles and Responsibilities:**

Roles		Responsibilities		
Title	Office	Process	Review	Approve
Financial Administrator	OMO	Informs PI of rates, prepares monthly and annual reports	Indirect cost recovery charges	
Principal Investigator	OMO		Indirect cost recovery charges	Approves all project costs

**References:**

The Negotiated Facilities & Administrative Cost Rate Agreement with the Department of Health and Human Services, Division of Cost Allocation.

OMB Circular A-21, “Cost Principles for Educational Institutions”

[http://www.whitehouse.gov/omb/circulars\\_a021\\_2004](http://www.whitehouse.gov/omb/circulars_a021_2004)

NSF Cooperative Agreement Financial/Administrative Terms & Conditions:

[http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=cafatc1010](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=cafatc1010)

**Document History:**

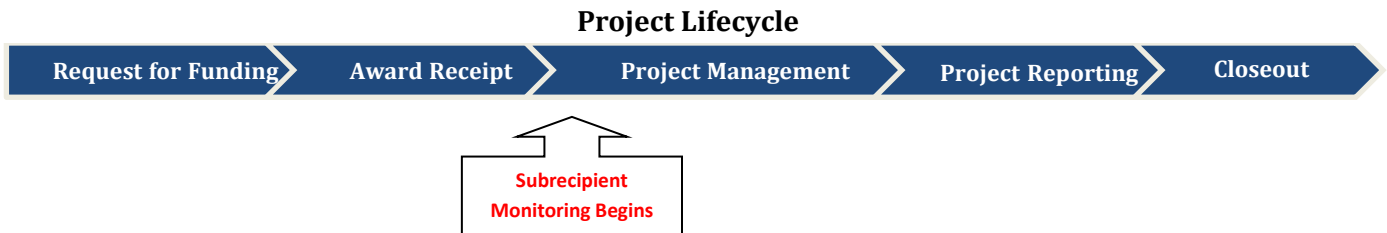
Date	Name	Action	Notes
3/31/2011	Various	Created	
11/12/2012	Edie Miller	Reviewed for ARC related changes	

## Subrecipient Monitoring

**LDEO Department:**  
Contracts & Grants /  
Office of Marine Operations

*Effective Date:*  
12/1/2010

**Standard Operating Procedure:**  
Subrecipient Monitoring Compliance



### Summary:

Columbia University (CU) may award financial assistance to or contract with a collaborator to facilitate performance of specific work to be conducted in connection with a Sponsored Project that has been awarded to Columbia as the prime grantee. As a condition of its acceptance of funding from a sponsor, the University is obligated to undertake certain stewardship activities and to ensure compliance by the subrecipient with federal, state and local laws and regulations, University policies and with sponsor restrictions.

The preparation, negotiation, final approval and execution of a subaward agreement are the responsibility of the Sponsored Projects Administration (SPA). The purpose of this Standard Operating Procedure (SOP) is to define the method by which the Lamont-Doherty Earth Observatory (LDEO) and Office of Marine Operations (OMO) monitor subrecipients for compliance with the Research Vessel (R/V) *Marcus G. Langseth* award terms and conditions.

### Definitions:

ARC	Accounting and Reporting at Columbia. Online system that allows for the creation, approvals routing, and transmission of financial data.
CU	Columbia University
FA	Financial Advisor (OMO)
F&A	Facilities and Administration cost rate
InfoEd	University system for sponsored award management
LDEO	Lamont-Doherty Earth Observatory
NOA	Notice of Award. Grant or fully executed contract.
OMO	Office of Marine Operations
PI	Principal Investigator
PO	Purchase Order
RP&IC	Research Policy and Indirect Cost Department of the Office of the Controller. The Columbia central administration department responsible for annual monitoring of all Subrecipients, among other responsibilities.
R/V	Research Vessel
SAPO	Subaward Purchase Order. Encumbrance fed to the account system.

SOP	Standard Operating Procedure
SPA	Sponsored Project Administration. The Columbia central administration department responsible for all institution level preaward review and approval and certain postaward transactions and sponsor communication.
PIN	Project Information Notice. Internal Columbia form created in InfoEd, stored in ReportWeb and fed into ARC. Departments run their own PIN upon notification from ARC that a project has been setup or modified.
SPF	Sponsored Finance Administration. The Columbia central administrative department responsible for financial post award activities such as financial reporting, invoicing and cash draw downs.
Subaward	Legally binding document, generated by Columbia, to provide financial support to subawardee in collaboration with the goals of an award where Columbia is the prime recipient.
Subrecipient	Organization, also subawardee, who has received financial support from Columbia.

## **Procedure:**

### Proposal Submission Guidelines – Subawards

Complete subaward proposals are required at the proposal submission stage for the prime grantee proposal. A complete subaward proposal contains the following:

- A Cover Page - signed by the subrecipient institutional officials and authorized representative.
- A Statement of Work - explaining in detail those services that will be performed.
- A Curriculum Vitae - for each subrecipient Principle Investigator (PI)
- A detailed Budget & Budget Justification
- A Debarment Form - to be signed by the subrecipients institution's authorized representative
- A copy of the subrecipient's negotiated Facilities & Administrative (F&A) cost rate agreement
- For National Science Foundation (NSF) proposals – an NSF certification form
- Subrecipient Contact Form – Attachment 3B of the Federal Demonstration Partnership (FDP) Subaward Template
- Basis for Selection – from Columbia PI

### Award Receipt / Subaward Issuance

- Upon receipt of the notice of prime award (NOA), SPA will establish a unique project number for the award where all project expenses are housed. The project includes a detailed budget segregated by cost category for each type of expense, including subaward expenses. If the project includes a subcontract, the LDEO Manager of the Contracts & Grants office will complete a subaward request form (**via the SPARC webportal**) and prime recipient contact sheet (**See Attachment 3A of FDP Subaward Template**). These documents and the subcontractor's proposal will be forwarded to the SPA Subaward team for the subaward agreement to be developed and issued.
- Once SPA receives all necessary documentation, an appropriate subaward agreement is developed according to SPA's standard procedures and the SPA Subaward team sends the partially executed agreement to the subrecipient for review and signature. Via the subaward document, the University will advise the subrecipient of all appropriate flow-down provisions from the primary award, all



relevant University policies and, if the subrecipient is a non-U.S. entity, all applicable U.S. laws and regulations.

- When the subawardee returns a fully executed agreement, the SPA Subaward team will email the agreement to the department. The SPA subaward team will release the SAPO to ARC at this point. The subaward team will upload the fully executed subaward agreement into InfoEd.
- The LDEO internal spreadsheet is updated when a subaward is fully executed in order to begin tracking the overall subrecipient monitoring process.

#### Programmatic Subrecipient Monitoring

- In parallel with the execution of the subaward agreement, the PI and OMO Financial Administrator (FA) will jointly determine the frequency and scope of departmental monitoring procedures based on the PIs assessment of needs for the subrecipient.
- The PI will monitor the progress of the subrecipient scope of work by reviewing formal progress reports, and/or informal progress reports by phone or email and staying in close contact with the subrecipient PI. Site visits and meetings are another form of monitoring the PI may choose based on the level of complexity of activity and the scope and duration of the project. If the PI experiences issues during the monitoring process, they will escalate to the LDEO Contracts and Grants office.
- To ensure the Subrecipient is in compliance with all laws and regulations that may affect the prime award, the Research Policy and Indirect Cost (RP&IC) Department of the CU Office of the Controller will, on an annual basis, request from Subrecipients that are A-133 Entities the results of its most recent A-133 audit. From Subrecipients that are not A-133 Entities, RP&IC will request a copy of its most recent annual financial report, including the latest audited financial statements and auditors' management letter. RP&IC will require a corrective action plan if any conditions exist that are non-compliant.
- RP&IC will follow up with any Subrecipient that does not provide it with the required information described above.
- If the PI experiences programmatic challenges or concerns during the monitoring process, they will escalate to the Associate Director, Marine Division, LDEO. The PI will also inform the Manager, Contracts and Grants, LDEO, if they anticipate resulting financial or administrative delays or challenges.
- The Manager of the Contracts office will monitor the end date of the project and alert the PI if the subrecipient has a large balance and is not invoicing regularly.

#### Ongoing Sponsored Project Prime Award Financial Monitoring

- PIs or their designees monitor the financial activity on each prime award project monthly. Central administration monitors key indicators like overdrafts, cash balances and payroll suspense monthly to identify issues of concern. Corrective actions are taken as required.
- The FA monitors budget to actual expense variances. Significant variances on subawards are evaluated during this process. Corrective actions are taken as required.
- The Office of the Controller and Sponsored Projects Finance conducts Quarterly financial closes during which concerns are identified and corrective actions taken as required.

- On a monthly basis LDEO Finance staff sends a report to PIs and FA identifying awards that are closing out (nearing the award end date) in the next 90 days. Staff works with PIs and FA to identify the close out plan for each award. During this period awards can be extended if more time is needed to complete the project.

#### Subrecipient Invoice Receipt, Review and Processing

- Invoices are sent from the subrecipient to the LDEO Manager of the Contracts & Grants office. The invoices are reviewed against the original subaward proposal budget and reconciled against ARC to confirm that the invoice from prior month has been paid. The LDEO Manager will communicate with the subrecipient financial administrator should additional justification be required for any large budget variances that were not previously approved. The subaward agreement contains terms and conditions specifying the information that should be included on an invoice. At a minimum, the invoice should include current and cumulative costs (including cost sharing), subaward number, and certification as to truth and accuracy of invoice.
- The PI is uniquely qualified to ensure appropriate progress is made by the subrecipient and as such can truly judge whether the work completed is in line with the invoices presented for payment. Upon receipt of subrecipient invoices an email is sent to the PI from the LDEO Manager of the Contracts & Grants office requesting confirmation on whether the PI is satisfied with the work completed to date and requesting approval to process payment. If the PI is satisfied they will provide approval to process payment. If the PI is not satisfied payment is withheld pending further investigation.
- If payment is being withheld the LDEO Manager of the Contracts & Grants office will officially request a formal progress report from the subrecipient through the subrecipient financial contact identified on **Attachment 3B** as needed. Follow up continues until the Columbia PI is satisfied with the progress made and approval is provided for payment. PI approval is obtained in writing through email or hardcopy.
- Approved invoices are sent by the Manager of the Contracts & Grants office to LDEO Finance for processing through Columbia's central Accounts Payable (AP) department in accordance with AP policies. Copies of invoices are sent to both PIs and the FA to document that the AP payment process has started. Copies of invoices are also retained in the LDEO Contracts & Grants office to facilitate any issues that arise with the AP payment process.
- Before the final payment is processed, the Manager of the Contracts & Grants office must obtain a final technical report and a University subcontract certification form (**See Attachment 5**) from the subrecipient. The subrecipient certifies on the subaward certification form the total subaward cost on their books, any final patent, second tier subawards and/or property acquired.
- A copy of the final payment request memo is forwarded to SPA and Sponsored Projects Finance (SPF) for their files. A copy of the subrecipient certification form is sent to LDEO Finance to request liquidation of any final encumbrance through CU purchasing.

Subaward Tracking and Escalation

- Internal spreadsheets are maintained in the LDEO Contracts & Grants office tracking all subawards. The spreadsheet is updated with every agreement issued, subaward purchase order (SAPO) processed, amendment issued, and payment processed.
- Upon receipt of a subaward invoice an email is sent to the PI requesting approval to process payment. If a PI is nonresponsive the LDEO Manager of the Office of Contracts & Grants will reach out to the FA for assistance and then to the Associate Director, Marine Division. Follow up continues until the issue is resolved.

**Escalation Procedure:**

Disagreements regarding the interpretation or enforcement of an LDEO SOP will be resolved internally at LDEO by conferring with either the Assistant Director for Finance and Administration or the Observatory Director. Questions regarding University Policy will be referred to an appropriate party within the University’s Central Administrative Departments.

In the event an employee does not comply with University policy or procedure they would initially be subject to a verbal warning by their supervisor. Repeated failure to comply can result in further disciplinary action, such as a written warning or an unfavorable performance review, up to and including termination of employment.

**Roles and Responsibilities:**

	Manager, Contracts & Grants	Project Coordi.	Subaward Team	RP&IC	PI	FA
Request subaward proposal for proposal submission.					Review/ Approve	Perform
Provide subaward packet to the SPA Subaward Team.	Perform		Review/ Approve			
Generates, negotiates final approval and execution of subaward agreements and releases SAPO.			Perform			
Reviews invoice against approved budget and generates internal payment memo.	Backup	Perform				
Escalates payment issues.	Perform					
Escalates any progress issues to subrecipient administrators.	Perform				Review/ Approve	
Approves Invoices for Payment.					Perform	

Submits invoice for payment	Perform					
Monitors Subrecipient annually for compliance with federal and University regulations.				Perform		
Forwards closeout documents to SPF and SPA.	Perform					

**References:**

Subaward Request Form, accessed via the Columbia University SPARC web portal:

<http://columbia.force.com/SparcForm>

SPA Subaward Forms, accessed at: <http://spa.columbia.edu/subawards/subaward-forms>

- Research Subaward Agreement Prime Recipient Contacts (Attachment 3A)
- Subrecipient Contacts (Attachment 3B)
- Subcontract Closeout Certification Form (Attachment 5)

**Attachments:**

Attachment 3A - Sample of Prime Recipient Contacts – FDP Subaward Template

Attachment 3B - Sample of Subrecipient Contacts – FDP Subaward Template

Attachment 5 - Sample of Subcontract Closeout Certification Form

**Document History:**

Date	Name	Action	Notes
12/01/2010	M. Respo	Created	
5/30/2012	M. Respo	Edited	
11/29/2012	E. Soergel	Edited	Reflects changes due to ARC
12/03/12	M. Respo	Reviewed	

## Award Closeout

**LDEO Department:**  
Office of Marine Operations

*Effective Date:*  
3/31/2011

**Standard Operating Procedure:**  
Award Closeout

### **Purpose:**

To document the process for the National Science Foundation award closeout and budget year closeout. The closeout procedure is the final stage in the life cycle of the award and confirms that all contractual and financial obligations have been met.

### **Definitions:**

CU	Columbia University
LDEO	Lamont-Doherty Earth Observatory
FA	Financial Administrator (OMO)
NSF	National Science Foundation
OMO	Office of Marine Operations
PI	Principle Investigator
RP&IC	Research Policy & Indirect Cost (CU)
R/V	Research Vessel
SMART	Standard Modifiable Account Reconciliation Template
SPA	Sponsored Projects Administration (CU)
SPF	Sponsored Projects Finance (CU)
SPFS	Sponsored Projects Financial Specialist (LDEO)

### **Guidelines:**

- All financial and performance reports are due to NSF within 90 days of the date of completion of the award.
- The SMART allows departments to populate a given project's expenditure activity into a modifiable excel template that allows departmental administrators to notify SPF when expenditures are slated to change.
- Typically, SPF submits financial status reports based on financial figures reported on SMARTs.

### **Process:**

The PI is responsible for the programmatic and financial close-out of a sponsored project, including submission of all technical reports required by NSF, termination of services and contracts, and close-out of subawards. The PI will initiate closure of bank accounts and petty cash funds; this process will be completed by the Controller and Treasurer's Office. The FA provides critical support to this process and plays an important role in ensuring that the project is closed out in a timely way and according to the terms of the award.

### Award Closeout

- Between 60 and 90 days before the award terminates, SPFS will send a "Closeout Notification" to the departmental administrators, PIs, and FAs, informing them of the necessary steps to be completed in anticipation of the closeout process.

- In turn the SPFS will send a monthly excel file with awards and end dates to departmental administrators. The OMO FA responds with the appropriate action to be taken in the excel file.
- The OMO FA will at times request an award closeout via an e-mail with supporting documentation to the LDEO SPFS.
- For the award supporting the operation of the *R/V Marcus G. Langseth*, LDEO/OMO documents the strategy for the financial phase-out of each major activity and details on closing out subawards, including unliquidated obligations.
- Approximately 45 days before the award terminates, SPF will send a SMART request to the SPFS.
  - The SMART is a Standard Modifiable Account Reconciliation Template. It populates a given project's expenditure activity into a modifiable Excel template, and allows department administrator's to document any changes to expenditures that are anticipated.
  - SMART will detail any reconciling expenditure items (i.e., payroll expenditure corrections, unspent balances, non-salary journal entry requests).
  - The PI and FA perform a thorough review of all expenditures for the award. The PI and FA determine any required transfers and open commitments, providing SPFS instruction on any residual balances, overdrafts, or other outstanding items. In the event of any overdrafts, see "Overdrafts" in the [Sponsored Projects Handbook](#).
- No later than 30 days before the award ends, LEDO SPFS will sign and return the SMART to SPF verifying the accuracy of reported expenditures and adjustments.
- The PI submits all technical reports to the Manager, Contracts and Grants, LDEO that are required by NSF within 60 days of the award's end.
- All federal awards require a final inventory of equipment purchased, fabricated, or furnished by the sponsor during the project period. The PI compiles the final list and submits it with the award closeout report.
- The LDEO SPFS provides a signed verification of the accuracy of the reported expenditures and adjustments as noted above. The SPFS forwards a copy of this report to the OMO FA, Manager, Contracts and Grants, LDEO, for filing in the award folder.
- In the 90 days following the project's termination, SPF validates that the indirect costs are calculated at the proper rate before reporting to NSF. (See Indirect Costs SOP)
- In the 90 days following the project's termination, SPF evaluates any cost transfer requests that are aged over 90 days, and if determined to be compliant, executes these entries.
- In the 90 days following the project's termination, SPF will review and complete instructions provided by the department to: cancel open commitments, clear overdrafts or residual balances, process cost transfers and reconcile travel advances.
- In the 90 days following project's termination, the department will monitor the reconciling items detailed on the SMART to ensure they are properly reflected in ARC.
- SPF prepares and submits the quarterly FFR/SF 425 for all NSF projects, containing final expenditure and draw-down activity for projects terminated within the quarter. This report is submitted electronically via the project reporting system in FastLane (See Financial Reporting SOP).
- The OMO FA works with Financial Reporting and Operations, SPF, and SPA to close the ARC operating/restricted projects. A sponsored/restricted project may be closed out when the project is

in balance, i.e., when project-to-date expenses on ARC agree with the total amount of expenditures on the Financial Status Report (FSR) submitted to NSF.

- Treasury closes the ship’s (“Master’s”) bank and checking accounts.
- The Controller’s Office closes the ship’s petty cash account.
- SPF completes Closeout Checklist.

**Escalation Procedures:**

- Manager, Contracts and Grants, LDEO, as part of routine responsibilities, monitors the status of active awards. If information is required from the PI, the Manager, Contracts and Grants, will contact the PI and the OMO FA to obtain necessary information.
- If SPFS LDEO does not return the SMART to SPF by 30 days before the award ends, SPF will contact the Manager, Contracts and Grants, LDEO, for intervention.
  - The Manager, Contracts and Grants will identify the issue to the PI, and to the Assistant Director, Finance and Administration, LDEO.

**Roles and Responsibilities:**

Roles		Responsibilities		
Title	Office	Process	Review	Approve
Principal Investigator	OMO	Final technical report	All expenditures and financial status report	
Financial Administrator	OMO	Final or outstanding transactions; prepares info on SMART	All expenditures and financial status report	Award Closeout
LDEO Contracts and Grants Manager	LDEO	Receives and forwards technical reports		
Director, SPF	Controller (CU)	Releases final financial reports in FASTLANE		Final financial reports
Manager, Capital Asset Accounting, Financial Reporting & Operations	Controller (CU)		Final Inventory of Equipment	
Sponsored Projects Financial Specialist	LDEO	Sends closeout notifications; sends SMART to SPF; sends signed report of inventory expenditures to OMO FA & LDEO Contracts & Grants Mgr		All reported expenditures/ adjustments; signs SMART

### Supporting Documents and Forms:

For more details, contact [Sponsored Projects Finance](#). See also the [Sponsored Projects Handbook](#) and policies in the [Administrative Policy Library](#), such as Financial Reporting and Closeout of Sponsored Projects, Project Administration Account Closeouts, and Overdrafts on Sponsored Project Accounts.

- <http://finance.columbia.edu/content/sponsored-projects-finance>
- <http://evpr.columbia.edu/content/sponsored-projects-handbook>
- <http://policylibrary.columbia.edu/>

### References:

2 CFR Section 215, Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and other Non-profit Organizations:

<http://www.whitehouse.gov/sites/default/files/omb/assets/omb/circulars/a110/2cfr215-0.pdf>

OMB Circular A-110, § \_\_\_\_.71 Closeout procedures:

[http://www.whitehouse.gov/omb/circulars\\_a110](http://www.whitehouse.gov/omb/circulars_a110)

NSF Cooperative Agreement Financial/Administrative Terms & Conditions:

[http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=cafatclf212](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=cafatclf212)

The NSF FastLane system is accessed at: <https://www.fastlane.nsf.gov/fastlane.jsp>

### Document History:

Date	Name	Action	Notes
3/31/2011	Various	Created	
10/24/2012	J. Tallon	Revised	



## Purchasing

**LDEO Department:**  
Office of Marine Operations

*Effective Date:*  
3/31/2011

**Standard Operating Procedures:**  
Purchasing

### **Purpose:**

To document the processes for purchasing for the *Research Vessel Marcus G. Langseth* including:

1. Purchase Order procedures
2. P-Card Purchase Procedures
3. Open Commitment Monitoring and Reconciliation
4. Tracking and Receipt of Goods Purchased by OMO
5. Invoice Processing

### **Definitions:**

AA	Administrative Aide (OMO)
AP	Accounts Payable
ARC	Accounting and Reporting at Columbia. Online system that allows for the creation, approvals routing, and transmission of financial data.
CMS	Content Management System. Web Site for storage and access to OMO requisition backup accessed by authorized members of OMO and the <i>R/V Langseth</i> .
CU	Columbia University
DAF	Department Authorization Form
EDM	Electronic Data Management System
EZ-PO	Easy Purchase Order
FA	Financial Administrator (OMO)
Google Docs	Spreadsheet listing all requisitions received from the ship and accessed by authorized members of the Office of Marine Operations and the <i>R/V Langseth</i> .
OMO	Office of Marine Operations
P-Card	A credit card that authorized CU personnel may use to purchase goods and services for use by the University.
PI	Principle Investigator
PO	Purchase Order. Used with vendors for materials, parts, supplies, equipment, repairs, services, construction and construction-related items, and consultant services, and represents a legal contract between the University and the vendor.
UwPA	University-Wide Purchasing Agreements. These are contracts that have been established through CU Central Purchasing for various goods and/or services. These supplier agreements are established to leverage the University's buying power.

### **Guidelines:**

The LDEO/OMO Purchasing Staff determines the appropriate purchasing mechanism, e.g. P-Card, EZ-PO or CU Central Purchase Order, following University purchasing guidelines.

### Policy for Competitive Bids:

- \$1-\$2,500 - Minimum of one oral or written bid, quote or proposal
- \$2,500-\$10,000 - Two written bids, quotes or proposals
- Greater than \$10,000 - Three written bids, quotes or proposals

### Sole/Single Source:

- A Sole Source Procurement is a purchase of goods or services where it is certain and documented that the products and services cannot be obtained through any other source. A Single Source Procurement is a purchase of goods or services without competitive bids and proposals, where no University-wide Purchasing Agreement is available, and for which all alternative sources are not feasible, practical and cost-effective.
- OMO completes the Sole/Single Source Justification form and forwards to LDEO Purchasing with other supporting documents.

### **Approvals:**

The P-card or requisition at OMO must be approved in accordance with the DAF. Approval confirms that the purchase complies with University policies, meets a legitimate University need and all supporting documentation is accurate and complete.

## **1. Purchase Order Procedures**

### **Process:**

- The AA receives requisitions from the ship via email. The requisition is entered in Google Docs by the originator on the ship. The AA then enters the information in OMO's CMS Web Site where all requisitions are stored along with copies of supporting documentation, such as quotes and invoices. CMS is accessible by authorized members of the Office of Marine Operations and the *R/V Marcus Langseth*. See <https://omo.ldeo.columbia.edu/?q=webfm>.
- The PI, Co-PI or FA approves all requisitions for reasonableness, allowability, and allocability within the requirements of the award.
- To load requisitions in CMS, the Administrative Aide (Junior Buyer) logs into CMS Purchasing; clicks on the appropriate Engine, Deck, or Science page, adds a new folder with requisition number and description, and uploads the requisition into CMS from "My Documents".
- Google Docs spreadsheets are accessible by authorized members of OMO and *R/V Langseth* and are used to track status of requisitions. Access at <http://docs.google.com/#al>. The Administrative Aide (Junior Buyer) fills in the spreadsheet with the requisition number, description, date and vendor into Engine, Science, or Deck (Captain's Requisitions).
- The Administrative Aide (Junior Buyer) obtains quotes from vendors; either from the vendor identified in the requisition, or if no vendor is pre-selected, locates a vendor using a Web search.
- The Administrative Aide (Junior Buyer) updates the appropriate requisition folder in CMS with the quote, and forwards for approval to the Marine Operations Manager (Co-PI) for Engine and Deck requisitions, or to the Technical Services Manager (Co-PI) for Science requisitions.

- After purchase approval is received from the Co-PIs, the product may be purchased by P-Card if the total cost is below \$2,500. P-Card procedures are outlined in the CU Purchasing Web Site, and in this document's following subsection.
- If the cost is above \$2,500, the Administrative Aide (Junior Buyer) must generate a purchase order in ARC from the CU Purchasing Web Site. All supporting documentation, such as competitive bids, Sole/Single Source Justification forms and price comparisons, must be uploaded to ARC along with the purchase order.
- Once the Administrative Aide (Junior Buyer) enters the requisition into ARC, it is reviewed by the LDEO Purchasing Manager and forwarded to Columbia Purchasing. When Columbia Purchasing releases the PO, it is faxed to the vendor and a copy is emailed to the OMO Administrative Aide (Junior Buyer).
- The purchase order is added to the corresponding requisition folder in CMS; the Google Docs spreadsheet is updated with the PO Number.
- When an order is placed, the Administrative Aide (Junior Buyer) adds details to Google Docs spreadsheet (i.e., date, price, and ship date). The Administrative Aide (Junior Buyer) highlights the row in purple to designate that the item has been ordered.
  - The Google Docs spreadsheet uses color coding to indicate status, i.e., that the item has been ordered, received, shipped, etc. A Legend for the color coding can be found at the top of each spreadsheet.
- The Administrative Aide (Junior Buyer) adds information to the Released Requisition log page of Google Docs.
- When goods are received at LDEO, the Receiving Department verifies the goods against the packing slips. The Administrative Aide (Junior Buyer) updates the receipt date in Google Docs and arranges shipment to the *R/V Langseth* with the LDEO Shipping Department.
- The LDEO Shipping Department notifies the LDEO Property Supervisor of receipt of item for identification, intended location and tagging if necessary for capital equipment.
- When the invoice is received, the Administrative Aide (Junior Buyer) scans the invoice and enters it into CMS in the requisition folder.
- When goods are received by the ship, the responsible person (the PI or their designee) on the ship updates the column on Google Docs with the date received.
- The responsible person on the ship (the PI or their designee) informs the LDEO property supervisor of the item serial number and other identifiers along with the ship's CU tag number and location of item on the ship.

**Escalation Procedure:**

Items not received by the ship in a timely manner are escalated to the PI. The PI contacts the LDEO Purchasing Manager for resolution.

**Roles and Responsibilities:**

Roles		Responsibilities		
Title	Office	Process	Review	Approve
Admin. Aide /	OMO	Process incoming		

Admin. Aide (Jr. Buyer)		requisitions from the ship and initiate purchase by P-Card or CU PO		
Marine Operations Manager	OMO			Approve requisitions and vendor quotes for Engine and Deck
Technical Services Manager	OMO			Approve requisitions and vendor quotes for Science
Purchasing Manager	LDEO			Approve purchase orders and provide assistance for problem resolutions
The Receiving Department	LDEO	Verify received goods against the receiving reports		
Property Supervisor	LDEO	Identifies, locates and tags capital equipment		
Principal Investigator	OMO		Reviews the POs for goods not received by the ship in a timely manner	

## **2. P-Card Purchase Procedures**

### **Guidelines:**

Use of a P-Card is the CU preferred method for purchasing approved items costing less than \$2,500. Details of approved items available from the CU Purchasing Web Site can be found at: <http://procurement.columbia.edu/purchasing/>

### **P-Card Misuse:**

Misuse of the P-Card and violation of the P-Card policy will result in disciplinary action. The Financial Coordinator is responsible for oversight of P-Cards use by the Administrative Aide (Junior Buyer). Examples of misuse and policy violation include, but are not limited to:

- Purchase of items for personal use
- Purchase of restricted commodities
- Splitting of purchase or service cost over multiple card transactions in order to circumvent the single transaction limit
- Use of the card by anyone or any department other than the authorized cardholder
- Administrative Violations are monitored by the Financial Administrator:
  - Failure to obtain and maintain supporting documentation for all card transactions

- Failure of Cardholder and/or Approver to sign off on transactions by hard close deadline
- Lack of timely and proper reconciliation of posted transactions
- Allocation of charges to sponsored project in a manner that is inconsistent with federal or other guidelines
- Approval of transactions that violate University policies

**Process:**

The use of a P-Card for purchasing items for the ship is described as follows:

- When a requisition is less than \$2,500, the Administrative Aide (Junior Buyer) contacts the vendor by phone or through the vendor’s web site and gives the P-Card number to make the purchase.
- The Administrative Aide (Junior Buyer) logs in to the ARC Purchasing site and goes to:  
Purchasing Card>Reconcile>Reconcile Statement
  - Select Transaction and Click on Line Details to view transaction detail
  - Click on Comments to add transaction description and upload invoice
  - Click on Distribution to allocate P-Card transaction to the appropriate Chart Field String
  - Click on Validate Budget to verify assigned Chart Field String
  - Change Status from Staged to Verified
  - Click on Save
- The order is reviewed and approved by the PI/Co-PI and OMO FA in Google docs prior to placing the order.

**Escalation Procedures:**

Monitoring of compliance is performed by LDEO Finance and Purchasing. If transactions are not approved and/or receipts are not submitted to the Administrative Aide (Junior Buyer):

- 1<sup>st</sup> month of non-compliance - email from LDEO P-Card Approver to cardholder/reconciler copying LDEO Purchasing Manager and LDEO Finance Manager for reason
- 2<sup>nd</sup> month of non-compliance
  - The P-Card will be suspended for two weeks
  - Reactivation of P-Card requires completing a survey
- 3<sup>rd</sup> month of non-compliance, card will be suspended for one month
- 4<sup>th</sup> month of non-compliance, card will be terminated.

**Roles and Responsibilities:**

Roles		Responsibilities		
Title	Office	Process	Review	Approve
Admin. Aide / Admin. Aide (Jr. Buyer)	OMO	Purchase items with P-Card and sign off on transactions. Supply backup monthly.		
Marine Operations Manager	OMO			Approve requisitions and vendor quotes for Engine and Deck

Technical Services Manager	OMO			Approve requisitions and vendor quotes for Science
Financial Administrator	OMO		Reviews monthly transactions	
Purchasing Manager	LDEO	Monitor P-Card noncompliance		
Finance Manager	LDEO	Monitor P-Card transaction allocations		

### **3. Open Commitments Monitoring and Reconciliation**

#### **Guidelines:**

- Monthly, the FA generates from ARC an Open Encumbrance report. The FA investigates the status with the Administrative Aide and the Technical and Purchasing Service Coordinator to determine what action is needed for each open commitment, e.g., increasing the PO, closing the commitment.
- 60 days before a project year ends, the FA will review the status report to ensure that open commitments are addressed by the project year end date.
- The FA advises the PIs that all payments must be processed before the project year end date.
- Open encumbrances on the operating projects must be liquidated or a change order must be processed to transfer the commitments to the new operating project(s).

#### **Process:**

Open commitments are funds that have been obligated via a Purchase order through CU's Purchasing System. The ARC reports provide a comparison of budget to actual expenditures. These reports include open commitments and contain information on the obligated funds for the award as well as expenditures for the two major awards: Ship Operations and Technical Services/Marine Mammal Mitigation. The PI also has inquiry access to open commitments through ARC.

- Monthly, the FA will download from ARC all open commitments and create an excel spreadsheet that summarizes them by award.
- The spreadsheet is emailed to the Administrative Aide and the Technical and Purchasing Service Coordinator, with copies to the PI and Co-PIs.
  - The Administrative Aide informs the FA of the status of the open commitments for Ship Operations and Shipboard Scientific Support Equipment (SSSE) projects and recommends action to be taken for each.
  - The Technical and Purchasing Service Coordinator performs the same function for the Technical Services and Instrumentation awards.
- Each open commitment is categorized as the following: in progress, completed, change order is needed to adjust the end date, increase amount, close (liquidate), or change the project to be charged.

- The Administrative Aide requests change orders to close (liquidates) an open commitment to the LDEO Purchasing Manager using ARC.
- Upon completion of the change order, the change is reflected in the next reporting cycle.
- Monthly, the Administrative Aide reviews ARC to ensure that the change order was completed properly.

**Escalation Procedure:**

If the task is not completed, the FA will send a second request to the Co-PIs. Co-PIs are requested to complete the appropriate action. If that doesn't create a resolution, then the OMO Director will assume responsibility for issue resolution.

**Roles and Responsibilities:**

Roles		Responsibilities		
Title	Office	Process	Review	Approve
Financial Administrator	OMO	Prepares and submits open commitments report		
Principal Investigator	OMO			Approves closing of open commitments
Admin. Aide/Purchasing & Shipping Coordinator	OMO	Informs the FA of the status of the open commitments for Ship Operations and SSSE projects and recommends an action to be taken for each.		
Technical/Purchasing Service Coordinator	OMO	Informs the FA of the status of the open commitments for technical services and oceanographic instrumentation projects and recommends an action to be taken for each.		
LDEO Purchasing Manager	LDEO			Approves change orders to close (liquidate) open commitments

**4. Tracking and Receipt of Goods Purchased**

**Process:**

Listed below are the procedures for tracking of items received for goods purchased through the CU Purchasing System by OMO for the *R/V Marcus Langseth*:

- Items ordered for the ship are either sent directly to the ship when it is in port, for an extended period or to LDEO when it is at sea.
- OMO will then send a consolidated shipment from LDEO to the ship when it is in port.

- These shipments are addressed to the LDEO Ship’s Agents who will arrange delivery to the ship upon its arrival in port.
- For items sent directly to the ship, the vendor is asked to reference both the name of the ship and the requisition number on all shipping paperwork to ensure that it is easily identifiable at the destination.
- The LDEO Property Supervisor is advised of the receipt, identifying information and *Langseth*-specific CU tag number for capital equipment.
- Items that are sent to LDEO should be marked in the same manner. The LDEO Receiving Department will then hold the items in a secure location in Receiving.
- The LDEO Property Supervisor is informed of the receipt of capital equipment for identifying and tagging at LDEO before sending to ship.
- Once a shipment is sent from LDEO to the ship, LDEO Shipping emails tracking information to the Captain, Chief Engineer, and Senior Science Officer to alert them of the shipment.
- Tracking information for critically needed items are sent to originator on the ship by the vendor so that shipment can be monitored and delivery confirmed.
- When items are received on the ship, purchase orders are updated in Google Docs by the department receiving the goods.
  - The Chief Engineer will update Google Docs for the Engine Department.
  - The Captain will update Google Docs for Deck Department, Communication and Navigation.
  - The Chief Science Officer will update Google Docs for any science equipment.
- Each department has an individual tab in the Google document spreadsheet.

**Escalation Procedures:**

Items shipped but not received need tracking information to be supplied by the vendor. If an issue is cannot be resolved with the vendor by the Purchasing and Shipping Coordinator, s/he will alert the FA who will attempt to resolve the issue with the vendor. If the FA cannot resolve the issue, then the FA will notify the LDEO Purchasing Manager, who will work with CU Purchasing to resolve the issue.

**Roles and Responsibilities:**

Roles		Responsibilities		
Title	Office	Process	Review	Approve
Admin. Aide/ Purchasing & Shipping Coordinator	OMO	Coordinate Tracking & receipt of goods purchased. Notifies Property Supervisor of receipt of goods.		
Property Supervisor	LDEO	Identifies & tags equipment. Tracks inventory.		
Financial Administrator	OMO	Resolve issues		
Captain, Chief Engineer and Chief Science Officer	<i>Langseth</i>	Confirm receipt of goods by updating Google Docs. Notifies Property Supervisor of Receipt of goods.		



## **5. Invoice Processing**

### **Guidelines:**

When items or services are purchased by OMO using a Columbia University Purchase Order, an invoice is received from the vendor after the items are received or the service is completed. The OMO PI and Co-PIs approve invoices for payment. The AA reconciles them to the PO and forwards approved invoices to LDEO AP for payment processing.

### **Process:**

This section describes the procedures for processing invoices for payment against an existing PO.

- The OMO Administrative Aide (Junior Buyer) receives invoices for items and services, which are purchased for the ship.
- Once the PO number is identified from the invoice, the Administrative Aide (Junior Buyer) confirms the dollar amount of the invoice with the PO.
  - If the dollar amount of the invoice equals or is less than the dollar amount of the PO, it is given to the originator of the PO to be reviewed and approved for payment. The signed copy of the invoice is then sent to LDEO AP for payment along with a copy of the PO.
  - If the dollar amounts differ, a change order to the PO is requested to the LDEO Purchasing Manager.
- A paper copy of the invoice and PO are retained in the OMO Office, filed by the relevant project/chartfield number.
- A scanned copy is also filed by the requisition number along with the original requisition from the ship and relevant quotes and other supporting documentation in the OMO CMS. CMS can be accessed at: <https://omo.ldeo.columbia.edu/?q=webfm>.

### **Escalation Procedure:**

If the vendor contacts OMO regarding overdue payment, the Administrative Aide (Junior Buyer) determines the reason for overdue payment and advises the PI or Co-PIs. The Administrative Aide (Junior Buyer) forwards the request to the LDEO AP Clerk in the LDEO Finance Department with a recommendation for resolution.

### **Roles and Responsibilities:**

Roles		Responsibilities		
Title	Office	Process	Review	Approve
Admin. Aide / Admin. Aide (Jr. Buyer)	OMO	Submit incoming invoices for payment to Accounts Payable		
Financial Administrator	OMO	Reconciles invoice to PO, sends invoice to AP for processing		
Principle Investigator, Co-PI	OMO			Approve invoices for payment

LDEO Purchasing Manager	LDEO			Approves change orders
Accounts Payable Clerk	LDEO Finance	Process invoices for payment		

**References:**

2 CFR Section 215, *Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and other Non-profit Organizations* (OMB Circular A- 110). § \_\_\_\_.40 to \_\_\_\_\_.48 Procurement Standards:

[http://www.whitehouse.gov/omb/circulars\\_a110/#procurement](http://www.whitehouse.gov/omb/circulars_a110/#procurement)

NSF Cooperative Agreement Financial/Administrative Terms & Conditions:

[http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=cafatclf212](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=cafatclf212)

Columbia University Purchasing:

<http://finance.columbia.edu/procurement/purchasing>

Columbia University Purchasing Policies:

<http://finance.columbia.edu/policies/80>

**Document History:**

Date	Name	Action	Notes
3/31/2011	Various	Created	
10/22/2012	J. Tallon	Revised	Reflects changes due to ARC
1/7/2013	E. Soergel	Edited	

## Personnel Costs

**LDEO Department:**  
Office of Marine Operations

*Effective Date:*  
3/31/2011

**Standard Operating Procedure:**  
Personnel Costs

### **Purpose:**

To document the payment and recording of the Reserch Vessel (R/V) *Marcus G. Langseth* Personnel Costs including:

1. Salary Charges on Awards
2. Payroll Suspense
3. Fringe Benefits Adjustments
4. Effort Reporting
5. Payroll Processing

### **Definitions:**

ARC	Accounting and Reporting at Columbia. Online system that allows for the creation, approvals routing, and transmission of financial data.
CMRS	Coordinator, Marine Recruitment and Staffing (OMO)
CU	Columbia University
ECRT	Effort Certification and Reporting Technology
FA	Financial Administrator (OMO)
FFE	Financial Front End
HR	Human Resources
LDEO	Lamont-Doherty Earth Observatory
MEBA	Marine Engineers Benevolent Association (Engineers' Union)
MM&P	Master's Mates and Pilots (Union)
OMO	Office of Marine Operations
PAC	People @ Columbia. System in which CU processes HR and Payroll transactions.
PI	Principal Investigator
RP&IC	Research Policy and Indirect Cost, Office of the Controller (CU)
R/V	Research Vessel
SDF	Salary Distribution Form
SPF	Sponsored Project Finance, Office of the Controller (CU)
TEF	Time Entry Form

### **1. Salary Charges on Awards<sup>1</sup>**

Salaries are charged to a specific award(s) through the use of a web template through the People @ Columbia (PAC) salary distribution system. OMO generally processes this information as needed based on the individual program budgets account end dates.

### **Guidelines:**

- PAC salary distributions shall be processed and monitored in a timely manner.

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<sup>1</sup> Effective 9 July 2012 PeopleSoft Labor Accounting Module became live. Updated procedures will be added to future revisions of this document.

- PAC salary distributions may be accessed through the MyColumbia.edu portal under the Human Resources (HR) Manager Resources tab; under the PAC transaction initiators.
- PAC salary distributions must be submitted for new hires or to change an existing employee's salary distribution.
- A PAC salary distribution processed over ninety days or more from the original charge entry date (i.e., a retroactive payroll transfer) requires Sponsored Project Finance (SPF) approval and final approval from Research Policy and Indirect Cost (RP&IC).
- Monitoring of salary charges must be performed monthly by the Financial Administrator (FA) and the Principal Investigator (PI).
- If there is no PAC salary distribution, personnel costs default to an LDEO payroll suspense account until they are assigned an account (See Payroll Suspense).

**Process:**

Salary changes for an existing employee:

- The OMO FA reviews the time and effort by employee with the PI for accuracy. If an individual's percentage of effort changes, a PAC salary distribution must be submitted to reflect salary charges for actual effort (e.g., an individual's estimated effort was 50/50 Ship/Tech: the individual's actual effort is 60/40 Ship/Tech; salary charges reflect actual effort).
- The Coordinator, Marine Recruitment and Staffing (CMRS) prepares an Excel file which reflects employee names, percentage of salary and time period to be charged to each award (Ship Ops, Tech and Marine Mammal). Any changes identified by the PI are made by the CMRS.
- The PI or Co-PI approves the file.
- The CMRS uses the approved, password-protected file for processing.
- The CMRS enters a PAC salary distribution for each change as indicated in the Excel file via the PAC salary distribution system (Go to PAC Transaction Initiator).

New Hires:

- The PI or the Co-PI, LDEO Assistant Director for Finance and Administration and CU HR will approve the position.
- The CMRS receives a completed and approved application, and enters SDF into the PAC system. (Go to Salary distribution processing).
  - The hiring application is reviewed to verify with the PI the award account and budget that will be charged.

PAC Salary distribution processing:

- The CMRS completes the PAC salary distribution form (SDF), and releases it to the LDEO Accountant.
- The LDEO Accountant reviews the SDF and the designated accounts for sufficient funding, project date and documentation of PI approval.
- For any salary transfer, the LDEO Accountant gathers supporting justification documents.
- Rejected SDFs are returned to the CMRS and OMO FA for changes.
- Approved SDFs are sent to LDEO Finance Manager for final approval.

- SDFs processed over ninety days from the original charge posting dates are sent by the LDEO Finance Manager to Director, RP&IC for final approval.

**Escalation Procedure:**

If tasks are not completed:

- The FA will work with HR and or the LDEO Accountant to resolve.
- If the issue needs further escalation, the LDEO Assistant Director for Finance and Administration or LDEO HR Manager will attempt to resolve.
- If challenges remain, they will inform the Director, OMO to seek resolution.

**Roles and Responsibilities:**

Roles		Responsibilities		
Title	Office	Process	Review	Approve
Financial Administrator	OMO	Prepares excel spreadsheet		
Principal Investigator	OMO		Salary transfers	New positions
Coordinator, Marine Recruitment and Staffing	OMO	Submits Salary Distribution Form (SDF)		
Accountant	LDEO Finance	Releases SDFs to LDEO Finance Mgr	SDFs	
LDEO Finance Manager	LDEO			SDF Final Approval Under 90 Days
Assistant Director, Finance and Administration				New positions
Director, Indirect Cost Analysis	RP& IC, Controller's Office			SDF Final Approval Over 90 Days

**2. Payroll Suspense**

**Guidelines:**

Salary may remain in suspense for the following reasons:

- Overpayment/recovery.
- Late receipt of an award.
- Delayed extension of an existing account or award.

**Process:**

If a new hire or salary change has not been processed in PAC the expense will default to an LDEO department-specified payroll suspense combo code (OMO = 1000006143; natural account 54105) until a cost transfer request is processed by the department. A salary distribution may be missing if the employee is a new hire, the period of the salary distribution has expired, or the account end date has expired.

- Payroll suspense is monitored by the LDEO Accountant monthly to ensure that the expenses are ultimately assigned to the appropriate account.
- Once a month, the OMO FA and CMRS will receive the Payroll Suspense Report via an e-mail from the LDEO Accountant.
- The FA and the CMRS collaborate to review and determine the reason these costs are in suspense and what action is needed.
- The CMRS documents in the Excel worksheet the reason/justification.
- Once complete, the CMRS e-mails the file to the LDEO payroll accountant and copies the FA.
- LDEO Accountant reviews and approves Excel file.
- CMRS creates salary assignments/cost transfers and includes justification for delay in posting salary expense to award/account.
- CMRS releases the salary assignments/cost transfers to the LDEO Accountant.
- If a cost transfer is created and submitted within 90 days of the original charge date, the LDEO Accountant releases it to the LDEO Finance Manager for final approval.
- If the expense remains in the suspense account for more than 90 days, CMRS creates a cost transfer and releases it to the LDEO Accountant.
  - LDEO Accountant forwards the cost transfer to the LDEO Finance Manager and SPF Project Manager for approval and then to RP&IC for final approval.
  - Upon approval from RP&IC, SPF Project Manager forwards to CU Payroll to process the final salary adjustment.

**Escalation Procedure:**

If tasks are not completed:

- The FA will work with HR and or the LDEO Accountant to resolve.
- If the issue needs further escalation, the LDEO Assistant Director for Finance and Administration or LDEO HR Manager will attempt to resolve.
- If challenges remain, they will inform the Director, OMO to seek resolution.

**Roles and Responsibilities:**

Roles		Responsibilities		
Title	Office	Process	Review	Approve
Financial Administrator	OMO		Salary Distribution Form	
Coordinator, Marine Recruitment and	OMO	Salary excel file, Cost Transfer Request (CTR) with justifications;		

Staffing		Releases CTR s to LDEO Accountant		
LDEO Accountant	LDEO	Releases Payroll suspense report; Releases CTRs		
LDEO Finance Manager	LDEO	Releases CTR to SPF and RPIC		CTR Approval Final Approval when <90 days
Director, Indirect Cost Analysis	Controller			CTR Final Approval when > 90 days

### **3. Fringe Benefits Adjustments**

#### **Process:**

Based on agreement between Columbia University Payroll and LDEO (since 1982), overtime (OT), vacation and non-watch pay would be considered a fringe benefit and charged a different rate. Base pay is charged at the full fringe rate. Since the CU payroll system allows for only one standard rate for fringe, LDEO prepares a manual adjustment for the variance in fringe charged on OT, vacation and non-watch pay. CU Office of Management and Budget provide the appropriate fringe rates which are derived from US government-established fringe rates to be used for salaries associated with federal grants.

- Fringe charges to ship operations natural accounts 53800, 54052, 54070 and 54040 are adjusted. Natural account 54060 (Seapay) should not be charged any fringe and only needs to be adjusted if fringe is charged.
- Fringe adjustments to natural account 54040 include the Captain's base salaries only.
- The LDEO Accountant prepares a fringe reduction request and emails this information to the FA.
- The OMO FA reviews and approves the fringe reduction request and forwards it to the LDEO Accountant for processing.
- The LDEO Accountant downloads the monthly payroll detail report for the ship operations account from ARC to create the fringe reduction request.
  - The LDEO Accountant creates an Excel file by cutting and pasting the unformatted payroll detail report.
  - The LDEO Accountant sorts the Excel file by natural account, name, and then deletes all natural accounts other than 53800, 54052, 54070 and 54040.
  - All employees in natural 54040 are deleted except for the Captains.
  - The LDEO Accountant calculates the correct amount of fringe benefit to be charged by multiplying the rate (7.65% as of 11/15/12) to the salary paid.
    - 53800 Overtime – 7.65%
    - 54070 R/V Ship Vacation Pay – 7.65%
    - 54060 Sea Pay – 0%
    - 54052 Shift-Non Watch – 7.65%

- Captain’s base salary 54040 and vacation pay 54070 – 7.65%
  - The LDEO Accountant then calculates the difference between the two fringe rates (7.65% vs. the annual CU rate) to determine the total amount to be credited to the account.
- The OMO FA reviews the calculation performed by the LDEO Accountant. The OMO FA approves the calculation and returns it to the LDEO Accountant.
- The LDEO Accountant approves and forwards the report to SPF.
- The Director, Indirect Cost Analysis, RP&IC, reviews and approves the journal entry by the end of the following month.
  - Copies are sent to the RP&IC Indirect Cost Analysis Director, LDEO Finance Mgr, OMO FA
- SPF Project Manager requests review and approval of the entry from the Director, Indirect Cost Analysis, RP&IC by the end of the following month.
- The SPF Project Manager inputs the adjusting journal entry into the ARC journal entry module and the SPF Director releases and process the entry.
  - The fringe reduction is credited to natural account 59030.
- At the end of every month, the OMO FA confirms that the previous month’s credit has been applied and that the amount is correct.

**Escalation Procedure:**

If not processed by the end of the month:

- The OMO FA will follow up with the LDEO Accountant who will then follow up with SPF.
- If still not addressed the OMO FA will contact the LDEO Finance Manager and request resolution.

**Roles and Responsibilities:**

Roles		Responsibilities		
Title	Office	Process	Review	Approve
LDEO Accountant	LDEO Finance & Administration	Fringe rate adjustments		
Financial Administrator	OMO		Fringe rate adjustment amounts	Fringe Rate reduction request
Project Manager, SPF	Controller	Journal Entry		
Director, SPF	Controller	Journal Entry		
Director, Indirect Cost Analysis	Controller		Fringe adjustment request	Journal Entry

**4. Effort Reporting**

**Guidelines:**

All Officers of Instruction and Officers of Research, except post docs, who receive any portion of their salary from a sponsored project or provide effort on a sponsored project are required to certify their own effort.

- PI’s are also required to certify the effort of their staff funded by their sponsored projects.



- The LDEO Accountant is the Primary Effort Coordinator for LDEO and the main contact for Associate Director, RP&IC.
- The FA is the Effort Coordinator for OMO.

**Process:**

Effort reporting is the federally-mandated process by which the salary charged to a sponsored project is certified as being reasonable in relation to the effort expended on that project. This process is performed annually through CU’s Effort Certification and Reporting Technology (ECRT) system. Effort Reporting Policy and Process are administered centrally by the RP&IC within the CU Controller’s Office in partnership with the Office of Research Compliance and Training. Although effort reporting is administered centrally, effort coordinators in each department play an important role. Each department/school is also responsible for ensuring compliance with federal requirements and University policy.

- The FA and the PI monitor accounts for discrepancies and will notify the OMO FA for any changes that are needed.
  - The FA processes a cost transfer to correct any discrepancies.
- Once a year, the PI logs on to ECRT (<https://ecrt.columbia.edu>) using UNI and Password to certify effort. PIs review the effort report for accuracy in the ECRT system.
- PI selects “Review/Certify my own Effort” or “Review/Certify the Effort of my Staff”.
  - If the salary charged reasonably reflects the effort expended, the PI certifies the effort card.
  - If there is an effort adjustment that results in a salary transfer, the PI consults with the FA, and then instructs the FA to process an ARC salary cost transfer (see above).
  - Concurrently, the PI revises and certifies the effort card.
- The FA reviews OMO’s completed effort reporting to ensure that all necessary salary cost transfers are initiated.
- On a monthly basis, the OMO FA reviews the monthly payroll detail report in ARC to confirm that transfers were processed.

**Escalation Procedure & Consequence:**

If a task is not completed:

- The LDEO Primary Effort Coordinator will notify the FA of the pending task.
- The FA will inform the Director, OMO, of pending effort reports.
- Central Administration tracks completion and implements consequences for non-completion.

Failure to certify may result in inactivation of current sponsored projects, the refusal to allow projects to be submitted to sponsors, and if deemed necessary removal of charges from sponsored projects for those individuals with uncertified effort.

**Roles and Responsibilities:**

Roles		Responsibilities		
Title	Office	Process	Review	Approve
Principal Investigator	OMO		Effort Card; monthly payroll detail report	Certifies Effort Card

OMO Secondary Effort Coordinator (FA)	OMO	Compares effort in PAC and ECRT	Monthly payroll detail report	
LDEO Primary Effort Coordinator (Accountant)	LDEO	Department's effort cards	Timeliness and completion of effort reporting	

## **5. Payroll Processing**

### **Guidelines:**

The CMRS processes payroll for personnel charged to the Ship Operations award. Officers are paid according to their union contract. Masters and Mates belong to the Master's Mates and Pilots (MM&P) union, and Engineers belong to the Marine Engineers Benevolent Association (MEBA). Crew payroll starts on the day the crew member travels to the ship. Based on the crew member's rotation his/her end date is the day the ship arrives and the next day is a travel day.

### **Process:**

#### Masters & Chief Engineers

- Monthly salary divided by 30 days yields the daily rate.
- Masters and Chief Engineers are paid at the daily rate on a semi-monthly basis.
- Masters and Chief Engineers are salaried and are not eligible for overtime.

#### Mates and Engineers

- Monthly salary times 12 and divided by 2,912 hours per year yields the hourly rate.
- Mates and Engineers are paid for 8 hour, 7-day workweeks at the hourly rate on a semi-monthly basis and are eligible for overtime.

#### Unlicensed Crew

- Unlicensed crew are paid at the hourly rate on a biweekly basis and are eligible for overtime.

#### Overtime

- Overtime is sent to OMO on a weekly basis by the Master for the deck department and steward's department and by the Chief Engineer for the Engine department.
- The Operation manager gives final approval on Overtime before it is processed.
- See Overtime Desktop Procedures for more detailed information.

#### Payroll Processing

- In order to process the payroll, a pay voucher for each crew member is created. Pay vouchers show base pay period, overtime period paid, Sea Pay, and Non Watch Differential.
- If the crew member is signing off, the end date will calculate his total days on board as well as his vacation that is to be paid.

- The completed unlicensed crew payroll is send via email to HR for review and processing via Financial Front End (FFE).
- Due to the complexity of the different pay structures for the Officer’s payroll, the CU payroll system does not allow the Officers’ payroll to be processed through FFE. In order to process the Officer’s payroll, a Time Entry Form (TEF) must be completed for each person using the new PAC combo codes.
- Once the Officer’s payroll is complete with TEFs and pay vouchers, it is emailed to HR for review and processing. After payroll is processed it is checked for accuracy or corrections by the CMRS before the checks are released to make sure all deductions are correct. Deductions include Ship Draw, benefits, 401K, etc. The ship’s draw account is reconciled by the CMRS.

**Escalation Procedure:**

If payroll is not processed appropriately and timely:

- The OMO FA will follow up with the CMRS or LDEO HR.
- If still not addressed the OMO FA will contact the OMO Director and/or LDEO Assistant Director for Finance and Admin and request resolution.

**Roles and Responsibilities:**

Roles		Responsibilities		
Title	Office	Process	Review	Approve
Coordinator, Marine Recruitment and Staffing (CMRS)	OMO	<b>Prepares payroll for processing</b>	Review payroll entries	Final approval before submission to CU payroll
Payroll Specialist	LDEO	Submits to CU payroll	Review payroll submitted by CMRS	

**References:**

CU Policy on Effort Reporting: <http://www.effortreporting.columbia.edu/index.html>

CU Effort Reporting Tool (ECRT): [http://www.effortreporting.columbia.edu/ecrt\\_tool.html](http://www.effortreporting.columbia.edu/ecrt_tool.html)

CU Policy on Sponsored Project Cost Transfers: <http://policylibrary.columbia.edu/sponsored-project-cost-transfers>

OMB Circular A-21, “Cost Principles for Educational Institutions:  
[http://www.whitehouse.gov/omb/circulars\\_a021\\_2004](http://www.whitehouse.gov/omb/circulars_a021_2004)

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Date	Name	Action	Notes
3/31/2011	Various	Created	
11/15/2012	J. Tallon / E. Soergel / G. Beck	Revised	Reflects ARC changes

## Travel Advances and Reimbursement for Travel and Business Expenses

**LDEO Department:**  
Office of Marine Operations

*Effective Date:*  
3/31/2011

**Standard Operating Procedure:**  
Travel Advances and Reimbursement for  
Travel and Business Expenses

### **Purpose:**

To document the process for Travel Advances and Travel Reimbursements.

### **Definitions:**

AA	Administrative Aide (LDEO Finance)
ARC	Accounting and Reporting at Columbia. Online system that allows for the creation, approvals routing, and transmission of financial data.
CMRS	Coordinator, Marine Recruitment and Staffing (OMO)
CRV	Cash Receipt Vouchers
FA	Financial Administrator (OMO)
LDEO	Lamont-Doherty Earth Observatory
OMO	Office of Marine Operations
PI	Principal Investigator
TAR	Travel Advance Request
TBER	Travel Business Expense Report
TRF	Travel Request Form
ULTRAMAR	LDEO Designated Travel Agency

### **Process:**

#### Travel Request Form Approval

- The Principal Investigator (PI) and the Co-PIs for the Ship Operations Cooperative Agreement and the Technical Services Award develop initial travel plans and budgets during the proposal process.
- For ship's crew, Travel Request Forms (TRFs) are approved by the Marine Operations Manager.
- For technicians, TRFs are approved by the Technical Services Manager.
- For the Office of Marine Operations (OMO) administrative team, the Director, OMO, approves travel.
- For the Director, OMO, travel is approved by the Associate Director, Marine Division.
- The approver will sign the TRFs.

#### Travel Advance Request Form

- Prior to requesting an advance, the TRF must be approved.
- The traveler completes a Travel Advance Request (TAR) Form, providing a business purpose for the travel and chart string to charge. A detailed breakdown of anticipated expenses is required including a description and basis for amounts for each item. Per diem rates may be used as a guide to estimate expenses for the travel. The traveler signs the form and submits it to the OMO Financial Administrator (FA).

- The OMO FA reviews and approves the request, then submits it to the LDEO AA who processes the travel advance in ARC.
- TARs are scanned by the Lamont-Doherty Earth Observatory (LDEO) Finance Administrative Aide (AA) into ARC before sending the original documents to LDEO Accounts Payable (AP) for payment.

#### Travel Arrangements

- Requests for travel should be submitted to the Coordinator, Marine Recruitment and Staffing (CMRS) no less than two weeks in advance to allow sufficient time for processing.
  - Crew travel requests are usually submitted a minimum of 30 days prior to travel to ensure best airline fares.
  - When arranging airline tickets, the CMRS prepares a TRF for each person. This request contains personal information, purpose of the trip and the chart string.
  - PI, Co-PI, or their designee review and approve TRF prior to submission to ULTRAMAR, the LDEO Designated Travel Agency.
  - The CMRS submits the approved TRF to ULTRAMAR.
  - Draft itineraries with price are sent by ULTRAMAR to CMRS to distribute for approval.
  - In the case of the crew and the technicians, the Co-PIs on the Cooperative Agreement and the awards review, accept and approve the itinerary and price.
  - In the case of the OMO administrative team, the traveler accepts their PI approved itinerary and price.
    - If the price exceeds the approved budget, supplemental approval will be sought from the PI or Co-PIs.
- CMRS receives approved travel itinerary and confirms with ULTRAMAR.
- ULTRAMAR sends approved TRF with accepted itinerary to the AA at LDEO Contracts and Grants Office for final approval before ticket can be issued.
- The LDEO AA in the Contracts and Grants office will perform a budget check to ensure that there are funds available in the indicated chart string, and ensures that travel complies with the Fly American Act (US Flag Air Carriers) on government accounts. AA communicates approval to ULTRAMAR.
- ULTRAMAR issues the ticket to the traveler.
- ULTRAMAR sends an electronic invoice to the LDEO Finance Department Accounts Payable Supervisor for payment and posting to ARC.

#### Travel and Business Expense Reimbursement

- The travel expense report (TBER) is used for reimbursement of any out-of-pocket expense and accounting for the travel advance or travel expenses.
- Expense reimbursements should be submitted to the department within 10 business days after the trip ends. Reimbursement requests must be submitted to department NO LATER than 120 days after the date of the expense, or the end of the fiscal year whichever is sooner.
- After return from travel, a completed TBER is submitted by the individual to the CMRS for review and allocation to the appropriate chart string.
- Expenses reported must adhere to the Columbia University Travel Policy.

- The PI approves the TBER in writing.
- The FA provides final review and approval, and submits to the LDEO Accountant for payment.
  - Approvers of TBERs Ensure compliance with National Science Foundation regulations and University policy.
  - Understand the nature of each expenditure.
  - Check the completeness and accuracy of the accounting.
  - Segregate unallowable expenses (i.e., alcohol) to natural account 66400.
  - Ensure that all supporting documentation is provided.
  - Check for appropriateness of expense.
- Cash Receipt Vouchers (CRV)
  - In the event that a traveler submits a TBER and the travel advance amount exceeds the trip costs, excess travel funds must be returned to the University at time of submission of the TBER.
    - The traveler must write a check made payable to Columbia University Trustees to accompany the expense report.
  - Once the Travel Service AA has reviewed and reconciled the amount due to the University, any variances are resolved with the traveler.
  - The Travel Services AA enters all payments into the ARC cash module and submits to the LDEO Accountant for approval.
  - The check is taken by the LDEO/OMO Messenger to Columbia’s Bursars Office. Payments are accompanied by a receipt, which must be signed and dated by the Bursar’s Office to verify receipt. The receipt is returned to the Travel Services AA, who files a copy with the appropriate expense report(s).

**Escalation Procedures:**

- If a Travel Advance has been issued, or travel has occurred and the related reports have not been submitted within 30 days:
  - The FA sends a reminder e-mail to the traveler to submit the TBER.
  - If the TBER is not received by 60 days, send a final reminder to the traveler, and escalate to OMO Director.
- El Finance receives outstanding travel advance report monthly from Central Accounts Payable as applicable.

**Roles and Responsibilities:**

Roles		Responsibilities		
Title	Office	Process	Review	Approve
AP Supervisor	LDEO	TBER; Posts to ARC		
PI or Co-PI	OMO		TBERs, TRFs, Travel Advances	TBERs, TRFs, Travel Advances
CMRS	OMO	TRFs; Spreadsheet of TBERs; liaison with ULTRAMAR		

FA (or designee)	OMO			TRF, Travel advances
AA	Contracts and Grants, LDEO	Enters Travel Advance into ARC	Travel budget funds available; use of US Carrier; Travel advance	
Accountant	LDEO	Payments		
ULTRAMAR	Independent	Travel itinerary and Booking		

**Supporting Documents and Forms:**

- Travel and Business Expense Report (TBER)
- Per Diem Policy
- Exception Memorandum
- Supplemental Approval Request
- Travel Advance Form

**References:**

Columbia University's Travel Policy:

<http://finance.columbia.edu/procurement/ap/index.html>

NSF Cooperative Agreement Financial/Administrative Terms & Conditions:

[http://www.nsf.gov/publications/pub\\_summ.jsp?ods](http://www.nsf.gov/publications/pub_summ.jsp?ods)

OMB Circular A-21, Section J.53 Travel Costs

[http://www.whitehouse.gov/omb/circulars\\_a021\\_2004](http://www.whitehouse.gov/omb/circulars_a021_2004)

**Document History:**

Date	Name	Action	Notes
3/31/2011	Various	Created	
11/16/2012	V. Beck and J. Tallon	Revised to reflect ARC language	

## Cost Sharing

**LDEO Department:**  
Office of Marine Operations

*Effective Date:*  
3/31/2011

**Standard Operating Procedure:**  
Cost Sharing

### **Purpose:**

To document the process for cost sharing for the Research Vessel (R/V) *Marcus G. Langseth* when required under an award.

### **Definitions:**

ECRT	Electronic Certification Reporting Tool
FA	Financial Administrator
NSF	National Science Foundation
OMO	Office of Marine Operations
PI	Principal Investigator
R/V	Research Vessel

### **Guidelines:**

Sponsored programs often require that sponsored grant funds be matched proportionately with non-sponsored or other sponsored funds or that the grantee incurs some cost of the project. Cost sharing and matching represent that portion of the project or program costs not paid for by the sponsoring agency. Cost sharing is generally provided as effort or equipment, but may include other expenses. Historically, cost sharing has not been required for National Science Foundation (NSF) projects awarded to the R/V *Marcus G. Langseth*.

Approvers of cost sharing must:

- Ensure compliance with NSF regulations, OMB Circular A-110 and University policy.
- Understand the nature of cost sharing.
- Monitor the commitment of funds to cost sharing to ensure the University fulfills its obligation per the agreement with the sponsor.
- Provide all supporting documentation.

### **Types of Cost Sharing:**

- **Mandatory:** required by the sponsor as a condition of the award.
  - Mandatory cost sharing and voluntary committed cost sharing must be supported by non-federal sources.
  - Mandatory cost sharing and voluntary committed cost sharing must be documented.
- **Voluntary committed:** not required by the sponsor, but promised by the Principal Investigator (PI).
- **Voluntary uncommitted:** not required or promised, but ultimately provided in carrying out the award.
- Costs associated with effort must be reflected in the Electronic Certification Reporting Tool (ECRT).



Equipment or other cost shared expenses must be easily identified so it can be demonstrated that those costs represent cost sharing on a specific project.

**Process:**

- When cost sharing is contemplated for a new award, the Office of Marine Operations (OMO) will follow the University policy on cost sharing.
- Before the proposal is submitted to the sponsoring agency, the PI and OMO Financial Administrator (FA) will coordinate with the Manager, Contracts and Grants. Lamont-Doherty Earth Observatory (LDEO) and seek approval from the Director, LDEO to commit for cost sharing.
- The Director, LDEO will seek guidance from the Assistant Director for Finance and Administration, LDEO on sources and how to account for the cost share.
- Prior to submitting the proposal, the Manager, Contracts and Grants, LDEO, will request a project(s) for the cost share from OMO.
  - If the funding for the cost share is part of a larger gift or grant, a scope project should be set up, budgeting the amount of the cost share and titled “Cost share (for that project)”.
- Once OMO has identified the project for the cost share to the LDEO Manager, Contracts and Grants, and adequate funding in the project has been confirmed, the LDEO Manager, Contracts and Grants processes and submits the proposal per standard operating procedure.
- During performance of the project, it is the responsibility of the FA, under the supervision of the PI to ensure that proper cost sharing procedures are observed, to include:
  - Cost sharing is properly identified in the accounting systems.
  - Unallowable costs are not treated as cost sharing.
  - Facilities and Administrative costs may not to be assigned to cost sharing.
  - No U.S. government funds may be used for cost sharing.
- Costs are not assigned directly to the cost sharing project, but are first assigned to the recharge center. The FA moves charges from the recharge center to the cost sharing project at the same time that charges are moved from the recharge center to the ship operations project, using journal entries.
- In monthly and annual reports, cost share funds applied to date will be highlighted as a unique line item.
- Closeout procedures for awards with cost sharing should apply the same procedures to close as other awards (See the OMO Award Closeout SOP). The project with cost share funds should be closed simultaneously with the sponsored project.

**Roles and Responsibilities:**

Roles		Responsibilities		
Title	Office	Process	Review	Approve
Principal Investigator (Director)	OMO	Prepares proposal with cost sharing	Cost sharing budget	Proposals with cost sharing; Journal Entries

Financial Administrator	OMO	Cost sharing budget; track cost sharing; prepares Journal Entries	Cost sharing project	
Manager, Grants and Contracts	LDEO		Proposals with cost sharing	
Assistant Director, Finance and Administration	LDEO		Cost sharing amount and funding source	
Director	LDEO			Cost sharing amount and funding source

**References:**

2 CFR Section 215, Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and other Non-profit Organizations:

<http://www.whitehouse.gov/sites/default/files/omb/assets/omb/circulars/a110/2cfr215-0.pdf>

Columbia Univeristy's Cost Sharing policy:

<http://policylibrary.columbia.edu/cost-sharing>

NSF Cooperative Agreement Financial/Administrative Terms & Conditions:

[http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=cafatc1010](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=cafatc1010)

OMB Ciruclar A-110, Cost Sharing:

[http://www.whitehouse.gov/omb/circulars\\_a110](http://www.whitehouse.gov/omb/circulars_a110)

OMB Memorandum M-01-06, *Clarification of OMB A-21 Treatment of Voluntary Uncommitted Cost Sharing and Tuition Remission Costs*

OMO Award Closeout Standard Operating Procedure

**Document History:**

Date	Name	Action	Notes
3/31/2011	Various	Created	
11/09/2012	Edie Miller	Revised to reflect ARC related changes	

## Cost Transfers

**LDEO Department:**  
Office of Marine Operations

*Effective Date:*  
3/31/2011

**Standard Operating Procedures:**  
Cost Transfers

### **Purpose:**

To document the Standard Operating Procedures for Cost Transfers as they relate to the awards for the *Research Vessel Marcus G. Langseth*, to include:

1. Cost Transfers
2. Carryforwards
3. Cost Reallocations-Recharge Process

A cost transfer is the reassignment of a cost from one account to another. The cost may be either salary transfers or OTPS. Columbia University policy requires cost transfers to be completed within 90 days of the original charge.

### **Definitions:**

ARC	Accounting and Reporting at Columbia. Online system that allows for the creation, approvals routing, and transmission of financial data.
CU	Columbia University
FA	Financial Administrator (OMO)
FM	Financial Management (LDEO)
LDEO	Lamont-Doherty Earth Observatory
MOSA	Maintenance and Overhaul Stabilization Award
NSF	National Science Foundation
OMO	Office of Marine Operations
OTPS	Other than Personnel Services
PI	Principal Investigator
PAC	People at Columbia. The system in which the University processes Human Resources and Payroll transactions.
Recharge Center	An "operating account," or proxy account where operating expenses are charged, prior to their transfer to an award account
RP&IC	Research Policy and Indirect Cost, Office of the Controller (CU)
SPF	Sponsored Projects Finance, Office of the Controller (CU)

## **1. Cost-Transfers**

### **Guidelines:**

- The guidelines from the Sponsored Projects Handbook should be used as a reference.
- The cost transfer must be reasonable, allocable, compliant with cost transfer policy, and appropriate to the new account.

- The cost transfer must be completed within 90 days following the end of the month in which the original charge was posted to a University account in order to be compliant with CU policies and Federal requirements.
  - Cost transfers requested more than 90 days following the end of the month in which the original charge was posted require additional review and processing by SPF.
- Salary cost transfers must be processed through PAC within 90 days.
- Transactions removing expenses from a sponsored account should be processed in a timely manner.

**Process:**

Cost transfer occurs within 90 days of expense

- In the process of monitoring monthly expenses, the OMO FA or the PI identify that a cost must be moved, or reclassified to ensure accurate accounting.
- Once the determination is made, the FA obtains the necessary documentation to support the request and writes a justification/request for transfer. The PI approves the request.
- The OMO FA sends the request via an email to LDEO Budget Assistant and copies the LDEO Finance Manager for approval.
- The LDEO Finance Manager reviews and approves the journal entry in ARC.
- The LDEO Budget Assistant will process the request through a journal entry in ARC.
- When reconciling the accounts, the FA follows up within 30 days to ensure the transfer has been accurately made.
- If the transfer is for salary costs incurred greater than 90 days from the original date posted, it requires final approval by the Director of RP&IC.

Cost transfer occurs after 90 days of expense

- If the OTPS cost transfer is being requested more than 90 days after the end of the month in which the original expense was posted, the department must send a cost transfer request, including justification to their SPF project manager for review and approval.
  - If reviewed, and determined to be both reasonable and compliant, the SPF Project Manager will both inform the FA that the transaction is being approved, and execute the requested transaction.
- If there are extenuating circumstances where a salary transfer is being requested more than 90 days after the end of the month, the OMO FA must send the salary transfer request via the labor accounting system, with a justification to the LDEO Payroll Manager.
- The LDEO Payroll Manager will review to determine reasonableness and compliance with award terms and conditions.
- If compliant, the LDEO Payroll Manager will coordinate review with the SPF Project Manager, who will attain approval and signature of RP&IC Director of Indirect Cost Analysis.
- When approved, SPF Project Manager will:
  - Forward request to payroll to execute the requested transaction.
  - Inform the OMO FA that the transaction is being approved.

**Roles and Responsibilities:**

Roles		Responsibilities		
Title	Office	Process	Review	Approve
Financial Administrator	OMO	Facilitates and monitors transfers of cost		
Principal Investigator	OMO	Requests transfer		Approves transfer < 90 days
LDEO Budget Assistant	LDEO	Transfers funds		
Payroll Manager	LDEO	Performs salary cost transfer > 90 days		
Project Manager	SPF		Review, evaluate, and execute OTPS & salary transfers > 90 days	OTPS transfers > 90 days
Research Policy & Indirect Cost	Controller's Office		transfers > 30 days	Salary transfers > 30 days

**2. Cost Transfers- Carryforwards**

**Guidelines:**

- Carryforwards occur on awards that are multiyear which are set-up with different projects for each budget year.
- A carryforward is the balance on the award's project at the end of the project year.
- The projects are usually extended beyond the calendar year to allow for any lag in activity or to accommodate cost transfers.
- Upon completion of activity, the projects are brought to zero and the balances are carried into the newly established projects for the current year. The prior year's project for each award is frozen and marked for deletion.

**Process:**

At the end of each cycle in a project, there may be a deficit or a surplus of funds remaining. If there is a deficit of funds, all expenses in excess of the budget are carried over to the next year's project. If there is a surplus of funds, the excess cash is credited to the next year's project, and the budget is increased accordingly. OMO has projects for Ship Operations and the Technical Service award(s). Each award has two projects. Ship Operations has Ship Op's and MOSA, and the Technical Services award has Tech Services and Marine Mammals.

- The OMO FA works with the PI's to ensure that all activity is completed by the end date of the particular project. This includes ensuring that:
  - All obligated activity is complete and all open commitments are closed out.
  - All cash transactions are complete and reconciled.

- Projects will be frozen by one of two means:
  - Automatically, at the end of each month, for all projects whose termination date reached or exceeded 90 days in the previous month.
  - Manually, by the SPF Project Manager, initiated either by:
    - Request
    - Perceived need, such as expenditure overdraft
- The OMO FA notifies the PI's and other OMO staff that the projects will be frozen, and verifies that there are no additional or remaining expenses.
- The OMO FA notifies the LDEO FM that the activity for each project is complete and that the remaining balances may be transferred to the next year's projects and that the prior year's projects should be frozen.
- The LDEO FM confirms with the FA the four projects with the associated balances to be carried forward (transferred) to the following years corresponding projects and emails the FA for approval.
- The LDEO FM then forwards the request to SPF for processing.
- SPF Project Manager performs the transaction, and then sends an email confirmation to the LDEO Financial Manager of the completed transaction.
- After the request is processed, the project is closed out and marked for deletion by the SPF Project Manager.

**Escalation Procedure:**

If a task is not completed, the LDEO FM will send a second request via email to SPF. If it is not resolved within 30 days, the LDEO FM will inform the Assistant Director, Finance and Administration, LDEO.

**Roles and Responsibilities:**

Roles		Responsibilities		
Title	Office	Process	Review	Approve
Financial Administrator	OMO	Requests and confirms transfer		
Principal Investigator	OMO	Ensures that transactions are completed prior to project close		
Finance Manager	LDEO	Requests, Confirms and submits transfer request to SPF	Transfer request	
Project Manager	SPF	Executes transactions, closes project		Transactions

### **3. Cost Reallocation- Recharge Process**

#### **Guidelines:**

- Ensure expenditures being requested for transfer from the recharge center to the award project are allowable, necessary and allocable to the project according to Columbia University's policies, federal regulations and the term and conditions of the award(s).
- Request the transfer in a timely matter, before the 15<sup>th</sup> of the month when using actuals.
- The request should credit the recharge center(s) and debit expenses to the award (prime) project(s).
- If using day rate(s), confirm NSF-approved rate.
- If current monthly activity is the basis of the request, confirm the amount being requested matches ARC's monthly expenditures.
- Confirm that the transfer has been completed accurately.
- Once an approved day rate is established, OMO should initiate a transfer no less than once a quarter.

#### **Process:**

Cost reallocations are used to re-assign expenditures from the *Langseth* recharge centers to *Langseth* award projects. In addition, cost transfers may be used to correct, reassign, or redistribute costs between these projects. The major awards – Ship Operations, Technical Services, MOSA (awarded through the Ship Operations Cooperative Agreement) and Marine Mammal – all have recharge centers to track costs. All costs associated with each program are tracked in a designated recharge center. These costs must be transferred from the recharge center to the program(s) prime award project in order for the draw down process to begin.

Once ship operations have commenced for a project year, the NSF Program Officer will approve a “day rate” for ship operations and the Technical Services award. That day rate is used as the basis of the cost transfer (Number of “operating” days completed, multiplied by the “day rate”). Therefore, expenses cannot be directly applied to the award project(s). Additionally, the day rate on the Technical Service award includes indirect cost. After a cruise is completed, OMO will initiate a transfer request (based on the number of cruise days) to the LDEO Finance Manager (LDEO FM), who then forwards the request to SPF for processing.

The Marine Mammal program does not have a day rate; expenditures reflect actual expenses incurred, but are charged to a recharge center because the indirect cost usually requires a manual calculation. The request is initiated by OMO. LDEO FM confirms, re-calculates direct and indirect costs, and forwards the cost transfer request to SPF Project Manager for further review, final approval and processing.

#### **Steps for Cost Transfer from the Recharge Center using Day Rates<sup>2</sup>**

- Upon completion of a cruise, the OMO FA prompts the PI to initiate the cost transfer.

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<sup>2</sup> This process was performed differently during Project Year 2010. No day rate was approved for 2010, due to the low number of operating days. The NSF Program Officer approved a one-time only transfer of charges to the award account without the use of a day rate.

- The PI prepares a letter and an excel file indicating: the number of days, day rate, the award number, projects, and amounts to be transferred to and from.
- The OMO FA reviews for accuracy.
- The PI approves the request.
- The OMO FA sends the request to the LDEO FM.
- LDEO FM reviews the data provided in the Excel file for accuracy, and to ensure that only direct costs are requested for the transfer.
- The OMO FA and the LDEO FM will meet with the PI and review the request that will be forwarded to SPF for processing.
- The PI and the LDEO Assistant Director of Finance and Administration approve final documents.
- The LDEO FM sends all required documents to SPF Project Manager for processing and copies the FA, the PI, and the LDEO Assistant Director of Finance and Administration. Required documents include:
  - The PI letter and approval
  - ARC Statements
  - Excel file
  - Award terms and conditions
  - Additional supporting documentation as requested
- SPF Project Manager executes the requested transactions, and sends confirmation via email.
- The following month the OMO FA confirms via ARC that the transfer has been correctly processed.

### Escalation Procedure:

If a transfer has not been completed quarterly, the LDEO FM will contact the OMO FA and request that the OMO FA prepare the transfer. If a transfer request is still not forthcoming, the LDEO FM will notify the Assistant Director, Finance and Administration, LDEO.

### Roles and Responsibilities:

Roles		Responsibilities		
Title	Office	Process	Review	Approve
Financial Administrator	OMO	Monitors recharge centers; submits transfer requests to LDEO	Excel file with cost transfer data	
Principal Investigator	OMO	Prepares excel file; obtains day rate from NSF		Transfer request
Assistant Director, Finance and Admin	LDEO		Reviews	Transfer request
Finance Manager	LDEO		Reviews	
Project Manager	SPF	Processes journal entries		



**References:**

NSF Cooperative Agreement Financial/Administrative Terms & Conditions:

[http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=cafatclf212](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=cafatclf212)

Columbia University Policy:

<http://www.columbia.edu/cu/administration/policylibrary/policies>

**Document History:**

Date	Name	Action	Notes
3/31/2011	Various	Created	
10/18/2012	J. Tallon	Revised	Reflects changes due to ARC and the 2012-2017 Cooperative Agreement

## Program Income

**LDEO Department:**

Office of Marine Operations

**Effective Date:**

3/31/2011

**Standard Operating Procedures:**

Program Income

**Purpose:**

To document the tracking and recording of Program Income generated from any internal or external third-party award for use of the *R/V Marcus G. Langseth*.

**Definitions:**

AP	Accounts Payable
ARC	Accounting and Reporting at Columbia.
CU	Columbia University
FA	Financial Administrator (OMO)
FM	Finance Manager (LDEO)
LDEO	Lamont-Doherty Earth Observatory
NSF	National Science Foundation
OGC	Office of General Counsel (CU)
OMO	Office of Marine Operations
PI	Principal Investigator
R/V	Research Vessel
SPA	Sponsored Projects Administration (CU)
SPF	Sponsored Projects Finance, Office of the Controller (CU)
UNOLS	University-National Oceanographic Laboratory System

**Process:**

Program income is gross income earned by the recipient that is directly generated by a sponsored project or otherwise earned as a result of a sponsored project/award. Program income includes but is not limited to: income from fees or services, and the use or rental of real or personal property acquired under government-funded projects. OMO may have program income as a result of providing Ship Services to other institutions or organizations and/or by the sale of commodities. When OMO engages in such activities, program income must be accounted for in the manner prescribed by federal regulations and Columbia University Policy. Unless otherwise specified in the Notice of Award from the NSF, program income earned under an active award is credited to the award and used to further the objectives of the project.

**Program Income**

- OMO will actively solicit work from other potential research organizations (“clients”). Clients will contact the PIs in OMO with a request to use the *R/V Langseth* for a science cruise. These requests are made throughout the year and confirmed before the annual budget process is finalized.
- The PI determines the feasibility of the proposed cruise within the *R/V Langseth’s* schedule.

- The PI sends the request for ship usage to the NSF.
- Upon agreement with NSF, a formal request is made via the UNOLS website ([https://strs.unols.org/Public/diu\\_login.aspx](https://strs.unols.org/Public/diu_login.aspx)).
- The proposed cruise is worked into the UNOLS ship schedule. Clients may book at any time during the year.
- The PI(s) will estimate the cost for the time requested for the cruise as part of their program's annual budget.
  - For Ship Operations, the PI calculates the cost for the total number of days the ship is used. For example: If the NSF is funding 5 days and University X wants to use it for an additional 2 days, the budget will be for a total of seven days. The total cost is divided by the total number of days to formulate a day rate.
  - Not all cruises mandate the use of Protected Species Observers (PSOs, formerly known as Marine Mammal Observers). Depending on the type of science, the PI(s) determines if Protected Species Observers should be appropriated and usage rate should be charged to the client.
  - OMO charges an administrative fee to non-United States governmental entities. This fee is a contingency for costs (e.g., fuel) depending on the nature of the cruise and where the vessel will be sailing. It is based on historical experience within a specific geographical location.
- Contracts for services are negotiated by SPA and the PI while the budget proposals are being submitted to the NSF. Contracts are reviewed by Columbia's OGC and SPA and the awards must be delivered prior to the client project appropriation.
- Upon receipt of the notice of award from NSF, Sponsored Projects Administration sets up separate chart strings for NSF and any client projects.
- After the client's scheduled cruise has occurred, the FA or PI sends an e-mail to the Manager, LDEO Contracts and Grants, with billing information.
- The Manager, LDEO Contracts and Grants, prepares a client invoice and processes it through Columbia's Central Accounts Payable (AP) department in accordance with AP policies.
- The Manager, Contracts and Grants, LDEO, reviews invoices against the original client proposal budget and reconciles against ARC; as part of this process, the Manager will confirm that the invoice from prior periods have been paid.
- The LDEO Finance Manager will communicate with the client financial administrator should additional justification be required for any expense insufficiently documented.
- Upon confirmation in ARC that the funds have been received from the client, the Bursars Office generates journal entries to credit this income to the award and offset expenses. Natural account 69799 is used to track program income.
- The PI communicates via email to the NSF program officer regarding any generated income. Prior to using surplus funds, permission is sought from NSF.

#### Sale of Commodities

- When a sale for unused equipment/commodities is deemed appropriate by PI and Co-PIs, the PI works with the staff to seek NSF approval for the sale.
- Upon written NSF approval, the transaction will be processed.

- For sale and disposal of equipment, see the OMO Property Management SOP.
- The Manager, LDEO Contracts and Grants, will send an invoice to the Purchaser for the agreed-upon price of the equipment within 30 days of the sale.
- The NSF program officer will give direction to the PI via email as to how to apply those funds to the program.
  - The funds are typically applied to offset current costs or held to purchase a particular item.
- Funds cannot be used until the Manager, Contracts and Grants, LDEO, has confirmed receipt of payment from the buyer.

**Escalation Procedure:**

If the PI notices a prolonged delay in receipt of payment from the client, the PI will notify the Manager, LDEO Contracts and Grants, and request that they contact the client to determine if payment has been made. If the client states that payment has been made, the Manager, LDEO Contracts and Grants will contact the CU Treasurer’s office to initiate a trace of payment.

**Roles and Responsibilities:**

Roles		Responsibilities	
Title	Office	Process	Approve
Program Officer	NSF		Sale of Equipment
FA	LDEO	Cost Transfer	
PI	OMO	Negotiates sales of equipment	
Contracts and Grant Manager	LDEO	Invoices clients and monitors collection	
Bursar	Bursar’s Office	Journal entries	

**References:**

2 CFR Section 215, Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and other Non-profit Organizations.

- <http://www.whitehouse.gov/sites/default/files/omb/assets/omb/circulars/a110/2cfr215-0.pdf>
- [http://www.whitehouse.gov/omb/circulars\\_a110](http://www.whitehouse.gov/omb/circulars_a110)

Columbia University Policy:

- <http://policylibrary.columbia.edu/treatment-program-income-sponsored-project-accounts>

NSF Cooperative Agreement Financial/Administrative Terms & Conditions:

- [http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=cafatc1010](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=cafatc1010)

**Document History:**

Date	Name	Action	Notes
3/31/2011	Various	Created	
10/18/2012	J. Tallon	Revised	Reflects changes due to ARC and the 2012-2017 CA.

## Cash Management

**LDEO Department:**  
Office of Marine Operations

*Effective Date:*  
3/31/2012

**Standard Operating Procedure:**  
Cash Management

### **Purpose:**

To document the Cash Management Processes for the *R/V Marcus G. Langseth* including:

1. The Captain's Bank Account Activities and Reconciliation
2. Agent Advances
3. The Captain's Cash Account (Petty Cash)
4. Cash Request/Drawdowns
5. Interest Income on Excess Cash

Cash Management for the ship is inherently different due to the offsite activities. The duties of receiving and disbursing cash and checks, custody of cash, checks and bank statements, and reconciling records are segregated.

### **Definitions:**

AP	Accounts Payable
ARC	Accounting and Reporting at Columbia. Online system that allows for the creation, approvals routing, and transmission of financial data.
CBA	Captain's Bank Account
CCA	Captain's Cash Account
CMRS	Coordinator, Marine Recruitment and Staffing (OMO)
CU	Columbia University
FA	Financial Administrator (OMO)
FSA	Financial Services Assistant (LDEO)
LDEO	Lamont-Doherty Earth Observatory
NSF	National Science Foundation
OMO	Office of Marine Operations
PI	Principal Investigator
SPF	Sponsored Projects Finance

## **1. Captain's Bank Account (CBA) Activities and Reconciliation**

### **Guidelines:**

The Ship's Captain retains a Captain's checkbook on board for distribution of the crew's monthly ship draw and miscellaneous expenses incurred in port. The Captain's Bank Account (CBA) balance is capped at \$70,000. The Master needs prior approval from the Principal Investigator (PI) to write checks over \$2,000. The CBA Report is the statement of the checking account activities.

### **Process:**

- Check Register

- The master records checks issued from the CBA Account and submits monthly the original receipts and the register to the Coordinator, Marine Recruitment and Staffing (CRMS).
- Record
  - CMRS codes all receipts received with appropriate natural account.
  - CMRS creates spreadsheet of expenses allocated by chart string.
  - Based on this spreadsheet, CMRS prepares journal entries. The spreadsheet creates an ARC data form which is used to enter the data into ARC.
  - CMRS sends the spreadsheet to the Lamont-Doherty Earth Observatory (LDEO) Accountant and provides copies of receipts.
  - The LDEO Accountant reviews for accuracy and if a foreign transaction, verifies the foreign exchanges by date and location using FX Foreign Exchange.
  - The LDEO Accountant sends the final report to the LDEO Finance Manager for final approval. All supporting documents are scanned into a PDF file and sent to LDEO Accountant. LDEO accountant submits the hard copy to LDEO Financial Services Assistant (FSA) for posting into ARC. The scanned documents are emailed to Columbia University (CU).
  - Supporting documentation is retained in OMO's CRMS files.
- Bank Reconciliation
  - A monthly bank statement is received and opened by the CMRS who then reconciles it to the CBA Report.
  - A monthly reconciliation using the Columbia Reconciliation Form is submitted by the CMRS to the Controller's Office. The reconciliation is sent to [CUbankrec@Columbia.edu](mailto:CUbankrec@Columbia.edu) and a copy is emailed to the LDEO Finance Manager.
- Replenishment
  - Along with the monthly reconciliation, the CMRS sends a wire transfer request for replenishment of funds to LDEO Finance Manager for approval and sent to the cash management team at CU for processing.
  - The Treasurer's Office will wire funds to the CBA.

**Roles and Responsibilities:**

Roles		Responsibilities		
Title	Office	Process	Review	Approve
Master	OMO	Issues checks, provides receipts to OMO		
Accountant	LDEO	Review for accuracy		
CRMS	OMO	Prepares check register, spreadsheet, and Journal Entries		
FA	OMO	Prepares reconciliation		
Finance Manager	LDEO		Journal Entry and Bank Reconciliation	Journal Entry and Bank Reconciliation

Financial Services Assistant (FSA)	LDEO	Inputs journal entry to ARC		
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## **2. Agent Advances**

### **Guidelines:**

- The ship must be represented by a Registered Port Agent prior to entering a port.
- The Port Agent performs ship activities when the ship is in port.
- The PI selects the Port Agent in advance.
- Agent’s fees and expenses require advanced payment for the purpose of managing the ship’s activities and are accounted for at the end of the port stop.

### **Process:**

- Prior to the ship arriving in port, the PI arranges with an agent to represent the ship and manage expenses while in port.
- A proforma invoice for advanced payment is sent to OMO by the agent prior to the ship’s arrival.
  - The CMRS prepares a check request for the invoice, the PI approves it and then the CMRS submits it to LDEO Accountant for approval and processing in Accounts Payable (AP).
- Advanced payments are charged to the designated chart string for Ship Operations, for agent advances.
- Agent receives advance via check or wire transfer from AP.
- The Agent renders services on our behalf. The agent then sends invoices to the PI for approval. The CMRS forwards the approved invoice to the LDEO Accountant for approval and to the AP clerk for processing.
- The agent either reimburses any balances owed or issues additional invoices to OMO for balance due.

### **Escalation Procedure:**

- The LDEO Accountant, as part of routine responsibilities, monitors the status of agent’s advance payments. If information is required to process the advance or the invoice from the agent, the LDEO Accountant will request that the PI contact the Agent.
- If the LDEO Accountant does not get results, the Accountant will escalate this to the LDEO Assistant Director of Finance and Administration.

### **Roles and Responsibilities:**

Roles		Responsibilities		
Title	Office	Process	Review	Approve
Port Agent	Independent	Submits invoices, receives advances		
CRMS	OMO	Invoices; check request		
PI	OMO	Schedules the Agent		Invoices
Accountant	LDEO		Invoice payment; check request	
AP Clerk	LDEO	Payment for invoice		

### **3. Captain's Cash Account (Petty Cash)**

#### **Guidelines:**

Captain's Cash Account (CCA) (Petty Cash/currency on board) expenses are tracked via receipts and spreadsheet and charged to the appropriate operating account. The account balance is capped at \$50,000. Reconciliation is performed monthly which includes: the CCA Report; statement of CCA and Cash on Hand Report; and the statement of the cash count.

#### **Process:**

- Record
  - Captain incurs expenses for Ship Operations and submits receipts to CMRS as well as the CCA report and the Cash on Hand Report.
  - The Captain may pay an advance to an employee as needed, and records and submits the payroll information promptly, no more than 10 days after disbursement.
  - CMRS creates a spreadsheet of expenses allocated chart string.
  - CMRS sends the spreadsheet to the LDEO Accountant along with copies of receipts.
  - The LDEO Accountant reviews for accuracy.
  - The LDEO Accountant sends the final report to the LDEO FSA for posting to ARC and for final approval by the LDEO Finance Manager.
  - Original supporting documentation is retained by OMO and copies are forwarded to the LDEO FSA.
- Reconciliation
  - Monthly, the Captain, together with a second party (usually the Chief Mate), will count the cash in the safe, and match to receipts and the Master's Cash Report.
  - The Captain will record the results of the count in the Captain's Cash on Hand Report.
    - If the amount is not reconciled, they will recount, and verify the discrepancy.
    - The discrepancy is reported immediately to the PI and the CMRS. The PI will determine follow up actions.
    - In the event of a discrepancy, the PI will notify the Assistant Director, Finance and Administration and Director, LDEO. The Director, LDEO will notify Internal Audit.
    - The amount of the discrepancy is charged to a departmental (non-sponsored) account.
- Replenishment
  - Along with the monthly reconciliation, the CMRS sends a check request for replenishment of the equivalent of current expenses to LDEO Finance Manager for processing in ARC.
  - The AP Office will send a check or wire transfer to the captain via the agent while ship is in port.
  - The agent will cash the check, or pick up the cash from the foreign exchange office, and will deliver the cash to the Captain.

#### **Escalation Procedure:**

- The CMRS, as part of routine responsibilities, monitors the status of the Master's Cash Account. If the CMRS notices a discrepancy in the reporting from the Captain, the CMRS will inform the PI immediately.
- If the monthly reports are late, the CMRS will notify the PI. The PI will seek resolution with the Captain.



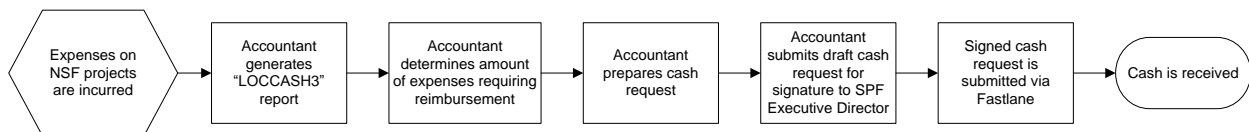
**Roles and Responsibilities:**

Roles		Responsibility		
Title	Office	Process	Review	Approve
Master	OMO	Disburses cash; maintains receipts; prepares and submits monthly report; Performs periodic count with second party (Chief Mate)		
Accountant	LDEO		Reviews spreadsheet for accuracy	
CRMS	OMO	Reviews monthly Master's Cash Report and Cash on Hand Report; Spreadsheet of expenses and accounts; Prepares Journal Entry		
Financial Services Assistant (FSA)	LDEO	Inputs journal entry to ARC		
Finance Manager	LDEO			Journal Entry and Reconciliation

**4. Cash Request / Drawdown Process**

The Sponsored Projects Finance (SPF) accountant in the CU Office of the Controller is responsible for processing National Science Foundation (NSF) cash drawdowns. The drawdowns occur periodically, typically weekly, and are executed using the Fastlane Financial Administrative System. The drawdowns are completed for expenses incurred on NSF chart string in the aggregate. The cash request initiates NSF's reimbursement of costs incurred on NSF accounts. Payments are made to the University via Automated Clearing House (ACH) the following day.

**Cash Drawdown Process Flow**



**Draw down amount**

- A cash monitoring report titled "LOCCASH3" is received weekly by the SPF Accountant to determine the amount of cash to be requested per Letter of Credit granting agency.

- This report aggregates all expenses incurred on active NSF accounts in a given month, to date, and details aggregate cash receipts for these accounts.
- The difference between these amounts determines the amount of unreimbursed expenses and the amount of the cash request.
- Any credits of expenditures that have been recorded in the active NSF accounts since the last drawdown are offset to the current amount of the aggregate expenses for the week.
- The SPF Accountant prepares a cash request, which is sent to the SPF Executive Director for approval.
- The approved cash request is submitted via FastLane.

Expenses on OMO Award Accounts

The NSF negotiated “day rate,” estimated in the ship operations proposal and approved by NSF, determines the direct costs applied to the OMO award accounts from the OMO Recharge Centers. Expenses cannot be directly applied to OMO award accounts; they must be charged to recharge centers, or recharge chart strings, and then periodically transferred to OMO award chart strings in multiples of the approved day rate. Exceptions to this method of applying expenses require NSF approval.

Prior to reimbursement, expenses must be transferred from OMO recharge centers to the award chart strings. Expenses incurred on OMO award accounts (drawdown accounts) then roll-up into the “LOCCASH3” report.

**Roles and Responsibilities:**

Roles		Responsibility		
Title	Office	Process	Review	Approve
Accountant	SPF	Prepares drawdown, submits when approved		
Associate VP for Research Financial Operations	SPF		Drawdown	Drawdown
Director	SPF		Drawdown	Drawdown (in absence of Associate VP for Research Financial Operations)

**5. Interest Income on Excess Cash**

NSF policy allows the University to keep excess cash up to 30 days on hand. While it is rare that the University carries excess cash on hand, this process exists to ensure that if excess cash at the end of a month exceeds the permissible 30 days, the accrued interest is tracked and paid to NSF.

**Process**

- At the end of each month:

- The SPF Accountant calculates the number of “days” of excess cash on hand using a burn-rate calculation.
- If number of “days” of excess cash on hand exceeds 30, the SPF Accountant obtains the interest rate earned on the University’s bank account for that month from the Treasury/Budget Office.
- SPF Accountant calculates the interest due.
- After each calendar quarter:
  - SPF Accountant aggregates interest due for each of the three months within that quarter.
  - SPF Accountant compares total interest earned for that quarter to the annual allowable administrative fee (\$250)
    - A one-time \$250 deduction is made from interest owed to NSF per fiscal year (October 1 thru September 30).
    - After one-time \$250 deduction is taken, any interest earned over \$250 amount in that quarter, as well as all interest earned in the subsequent quarters in the fiscal year, is reported on the quarterly FFR/SF 425 report as “Interest Income”.
  - SPF Accountant prepares quarterly FFR/SF 425 report, and provides to the SPF Director for review and signature.
  - Once signed by SPF Director, SPF Accountant submits quarterly FFR/SF 425 report via Fastlane Financial Administrative System.
    - NSF does not require backup information when FFR is filed; however, the SPF Accountant retains all related documentation to substantiate interest income calculations.

**Roles and Responsibilities:**

Roles		Responsibilities		
Title	Office	Process	Review	Approve
Accountant	SPF	Calculates Interest Income, prepares quarterly FFR/SF 425		
Director	SPF		Interest Income calculation on quarterly FFR/SF 425	Interest Income calculation on quarterly FFR/SF 425

**References:**

31 CFR Part 205. Rules And Procedures for Efficient Federal-State Funds Transfers: The awardee should request payments in amounts necessary to meet current needs.

<http://www.gpo.gov/fdsys/granule/CFR-2011-title31-vol2/CFR-2011-title31-vol2-part205/content-detail.html>

OMB Circular a110, 2 CFR 215.22: where appropriate, awardees are required to maintain advances of Federal funds in interest-bearing accounts.

<http://www.whitehouse.gov/sites/default/files/omb/assets/omb/circulars/a110/2cfr215-0.pdf>

NSF Cooperative Agreement Financial/Administrative Terms & Conditions:

[http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=cafatclf212](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=cafatclf212)

NSF Award and Administration Guide, Chapter III: Financial Requirements and Payments

[http://www.nsf.gov/pubs/policydocs/pappguide/nsf10\\_1/aag\\_3.jsp](http://www.nsf.gov/pubs/policydocs/pappguide/nsf10_1/aag_3.jsp)

For information on cash management associated with *international projects*, see the University's *International Banking, Expense Reimbursement, and Replenishment Policy*, available in the [Administrative Policy Library](#).

**Document History:**

Date	Name	Action	Notes
3/31/2011	Various	Created	
11/16/2012	G. Beck	Revised	Reflects changes due to ARC and 2012-2016 Cooperative Agreement

## Record Retention

**LDEO Department:**  
Office of Marine Operations

*Effective Date:*  
3/31/2011

**Standard Operating Procedure:**  
Record Retention Policy

### Purpose:

This policy establishes a process for developing and maintaining a Records Retention Schedule (RRS). The RRS lists the types of Office of Marine Operations (OMO) records and their retention periods, is based upon legal and operational requirements, and provides a framework for the life cycle management of records. OMO maintains all documents for awards in accordance with federal regulations in OMB Circular A-110 and Lamont-Doherty Earth Observatory (LDEO) and Columbia University (CU) policies.

### Definitions:

CU	Columbia University
FA	Financial Administrator (OMO)
LDEO	Lamont-Doherty Earth Observatory
NSF	National Science Foundation
OMB	Office of Management and Budget (CU)
OMO	Office of Marine Operations
RRS	Record Retention Schedule

### Process:

The OMO Financial Administrator (FA) is responsible for ensuring records are reviewed for retention in September of each year, in accordance with LDEO record retention policy.

### Record Retention Guidelines:

Type of Records	Minimum Duration for Retention	Comment/Reference
Financial records, supporting documents, statistical records, and all other records pertinent to an award.	3 years	From the date of submission of the final expenditure report or for awards that are renewed quarterly or annually, from the date of the submission of the quarterly or annual financial report, as authorized by the Federal Awarding Agency.
Documents relating to any litigation, claim, or audit by the Federal awarding agency.	Until resolution	All documents will be retained until all litigation, claims or audit findings involving the records have been resolved and final action taken.
Real property and equipment acquired with Federal funds.	3 years	After final disposition.

**References:**

- 2 CFR Section 215, *Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and other Non-profit Organizations*
- CU Record Retention Policy:  
[http://policylibrary.columbia.edu/files/policylib/imce\\_shared/Records\\_Retention\\_Policy\\_with\\_schedules.pdf](http://policylibrary.columbia.edu/files/policylib/imce_shared/Records_Retention_Policy_with_schedules.pdf)
- LDEO Record Retention Policy Standard Operating Procedure
- NSF Cooperative Agreement Financial/Administrative Terms & Conditions:  
[http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=cafatc1010](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=cafatc1010)

**Document History:**

Date	Name	Action	Notes
3/31/2011	Various	Created	
11/12/2012	E. Soergel/E. Miller	Edited for clarity	

## FastLane Permission Process

**Department:**

SPF/SPA

**Effective Date:**

3/31/2011

**Standard Operating Procedures:**

FastLane Permissions Process

**Purpose:**

To document procedures for the Fastlane permissions process.

**Definitions**

SPF	Sponsored Projects Finance
SPA	Sponsored Projects Administration

**Process**

FastLane is NSF's web-based Proposal Submission and Financial Administrative System. This SOP outlines procedures that facilitate the maintenance of current and accurate FastLane administrative user permissions at Columbia University.

User Creation in Fastlane

- A Fastlane Permissions request form is (accessed in SPA website) filled out by the individual requesting access, and when submitted, sent to the [ms.grants@columbia.edu](mailto:ms.grants@columbia.edu) inbox at Sponsored Projects Administration at Columbia University.
- The FastLane Permissions request form includes the following fields:
  - Name
  - Email
  - Phone
  - Fax
- If an individual will serve as a PI or Co-PI on an NSF Proposal, the following fields are required:
  - Department
  - Highest Degree
  - Degree Year
- A data analyst at SPA, a recipient on the [ms.grants@columbia.edu](mailto:ms.grants@columbia.edu) email list, accesses this request, and creates a generic user account.
  - When a Data Analyst is absent, SPA Database Administrator, and/or SPA Senior Business Analyst assume FastLane user creation responsibilities.
- The Data Analyst creates a generic user account ID from the "Accounts Management Screen" on the Fastlane User Account Tab without specific access.
  - If the request form is preceded or followed by a request for more specific access (via email or telephone), more specific access may be granted if determined to be appropriate
- Principal Investigator access is given to individuals who request PI access once the Data Analyst confirms:
  - Completion of PI/Co-PI section of user request form
  - That the individual is indeed a PI within the University by referencing personnel titles in InfoEd.
- Once granted PI access, individuals can delegate specific permissions to others with user accounts on their own proposal(s)
- If a specific access request is received, the Data Analyst will evaluate it, referring to the requestor's title and role in the University before creating the user account.

- Request for which the appropriate access requires further review or evaluation will be routed to the appropriate SPA Project Officer.
- Request for permissions to add/modify/create users must be routed to the infoedhelpdesk@columbia.edu email inbox.
- SPA personnel will evaluate the request justifying specific access and the decision to grant access or not.

User Deletion in Fastlane

- SPA and SPF staff FastLane user accounts will be deleted within one week of the employee’s termination from the University.
- Account deletions occur from the “Accounts Management Screen” on the FastLane User Account Tab.
  - SPF Directors, who maintain “Add, Modify, and Delete” permissions, will be responsible for deleting the accounts of terminated SPF employees.
  - SPA Directors will be responsible for informing individuals (Data Analyst, Database Administrator, Senior Business Analyst) with “Add, Modify, and Delete” permissions of individual(s) whose user account(s) must be deleted.
- Data Analyst, Database Administrator, or Senior Business Analyst will execute user account deletion, and confirm with the Director of SPA.
- SPA and SPF user permissions will be reviewed quarterly by representatives (SPF Director, SPA Database Administrator) to ensure that Fastlane permissions within central administrative offices are current.

**Roles and Responsibilities**

Roles		Responsibilities		
Title	Office	Process	Review	Approve
Data Analyst	SPA	Adds, modifies, or deletes users		
Database Administrator	SPA	Creates users, runs organizational reports		
Senior Business Analyst	SPA	Adds, modifies, or deletes users		
Directors	SPA			User account deletion
Directors	SPF	Adds, modifies, or deletes users, delegates financial permissions		



**References:**

Fastlane System Help

[https://www.fldemo.nsf.gov/NSFHelp/flashhelp/fastlane/FastLane\\_Help/fastlane\\_help.htm#welcome\\_to\\_the\\_fastlane\\_help\\_system.htm](https://www.fldemo.nsf.gov/NSFHelp/flashhelp/fastlane/FastLane_Help/fastlane_help.htm#welcome_to_the_fastlane_help_system.htm)

Fastlane User request from

<https://www1.columbia.edu/sec/cu/opg/request/fastform.html>

Fastlane Website may be accessed at the below web address:

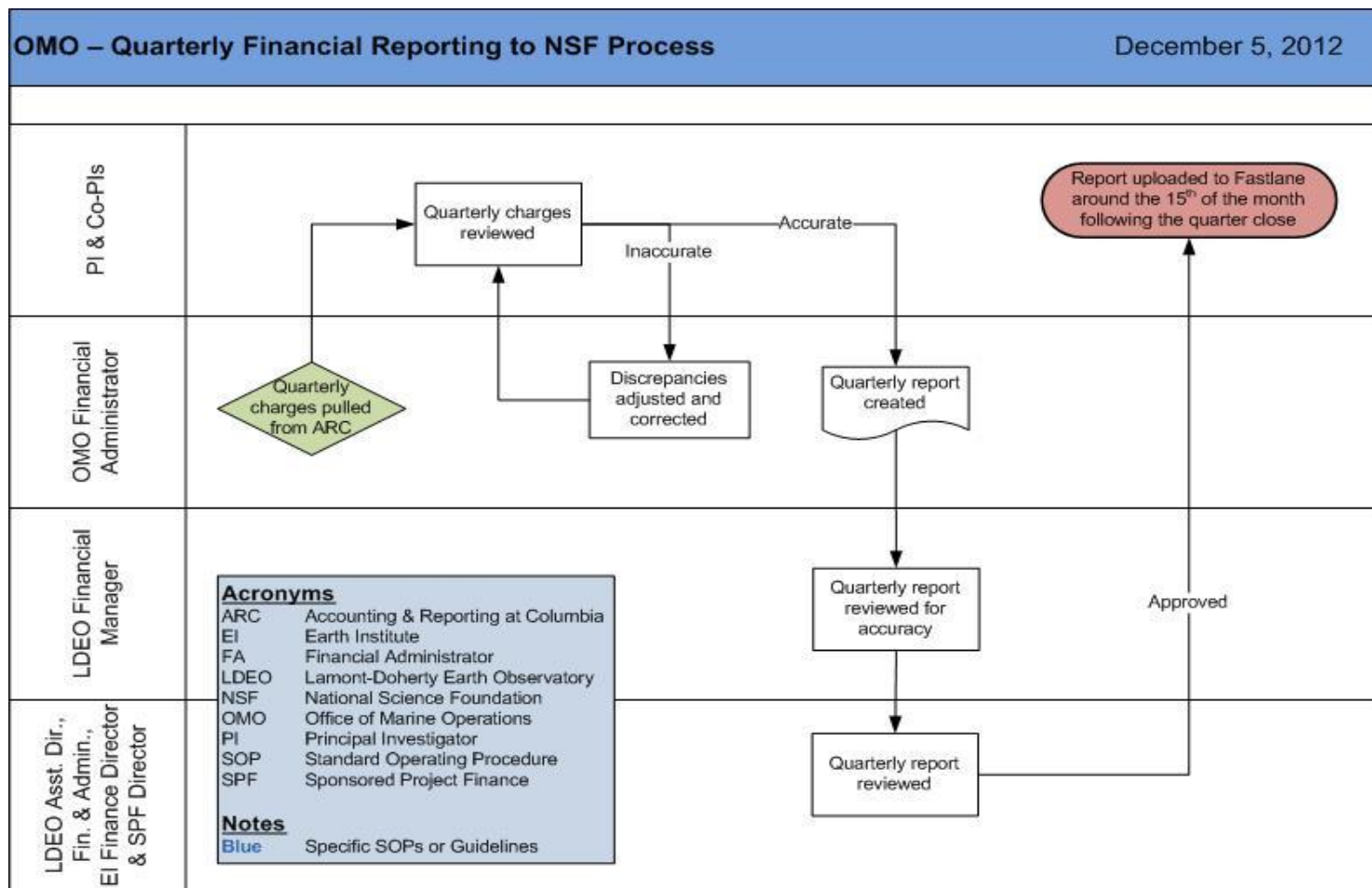
[https://www.fastlane.nsf.gov/NSFHelp/flashhelp/fastlane/FastLane\\_Help/fastlane\\_help.htm#introduction\\_to\\_fastlane.htm](https://www.fastlane.nsf.gov/NSFHelp/flashhelp/fastlane/FastLane_Help/fastlane_help.htm#introduction_to_fastlane.htm)

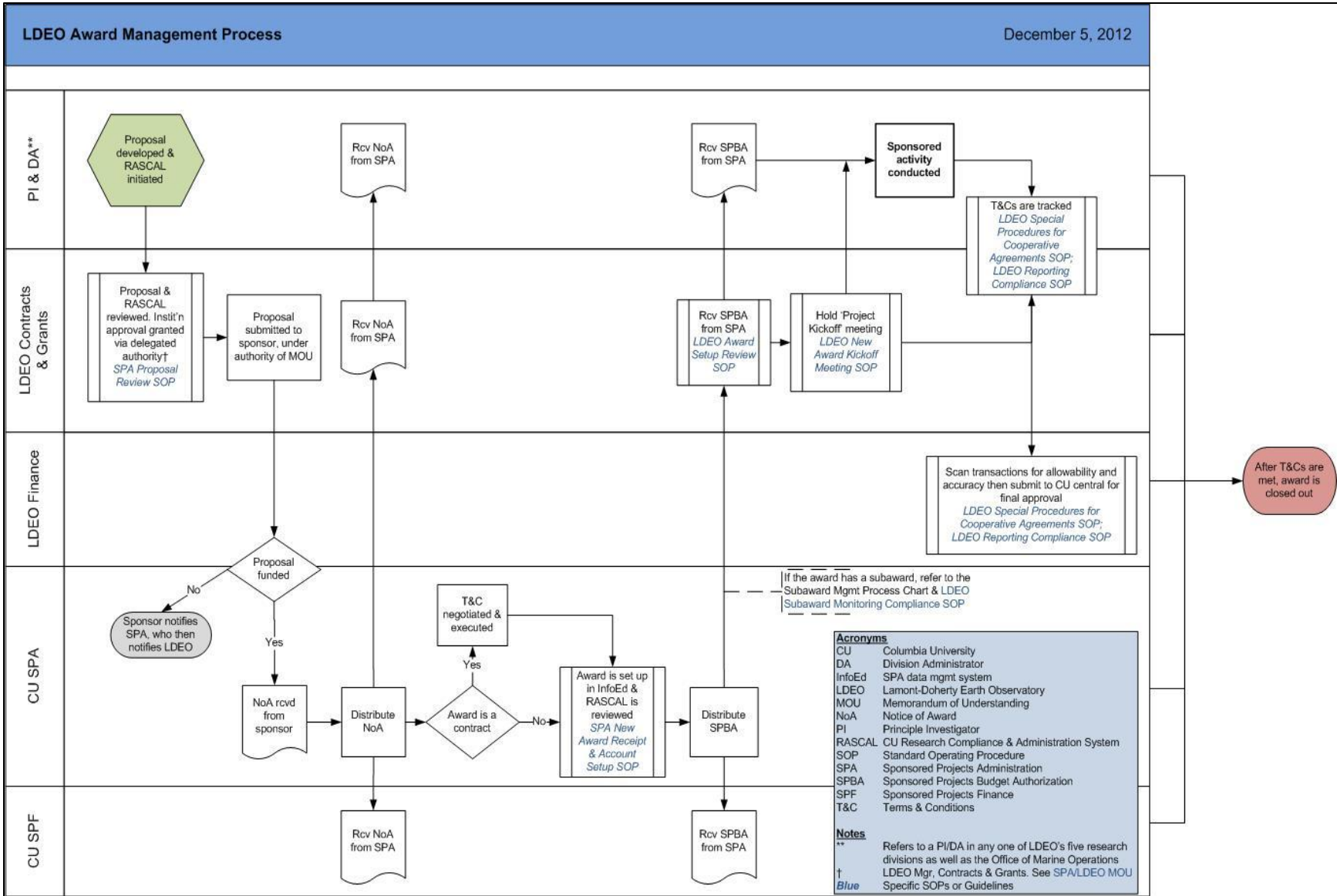
**Last Revised:**

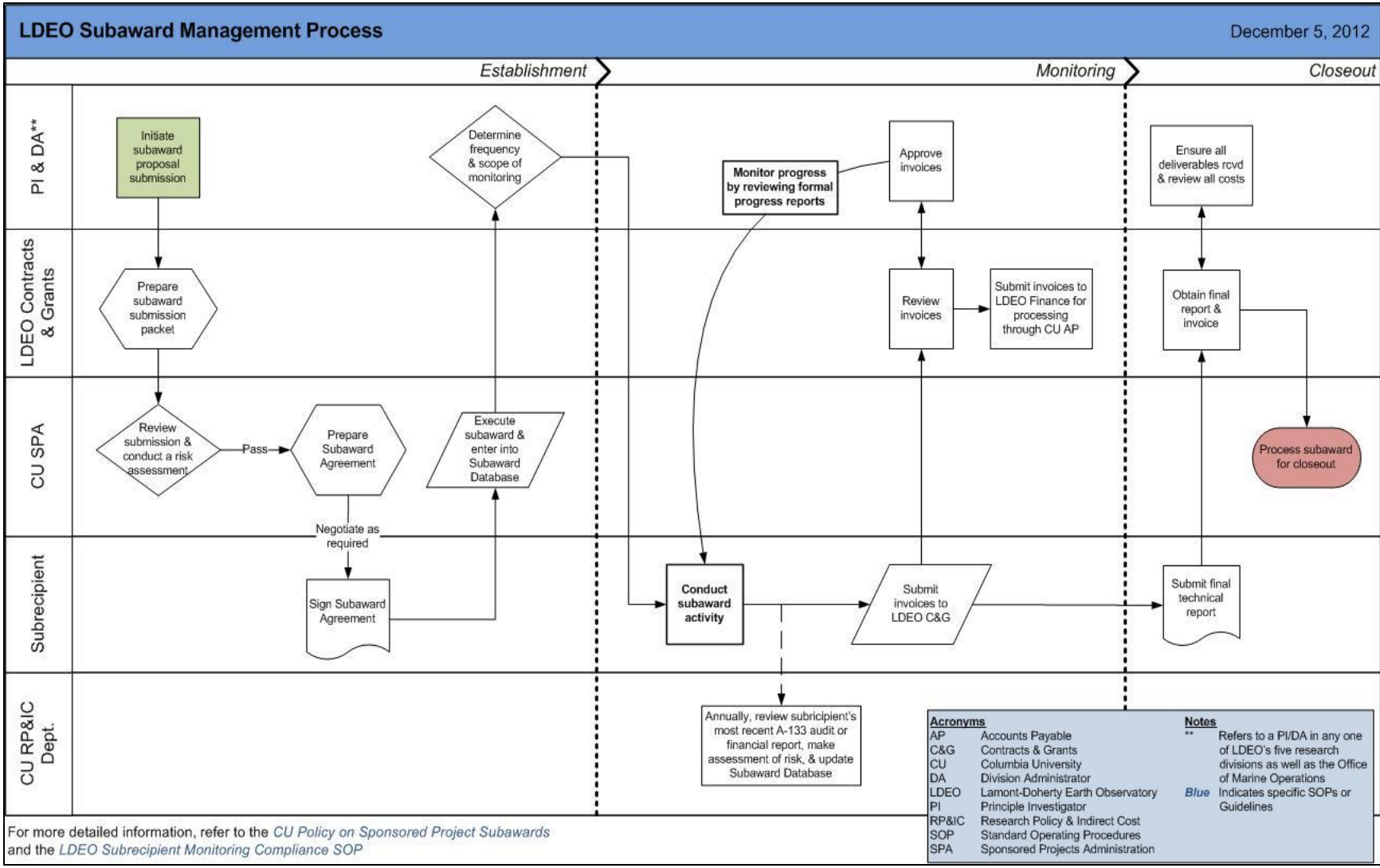
November 20, 2012

## 6. SUPPORTING MATERIALS

This section contains materials to aid the operational support of OMO and the *Langseth*, and should be used as a reference only.

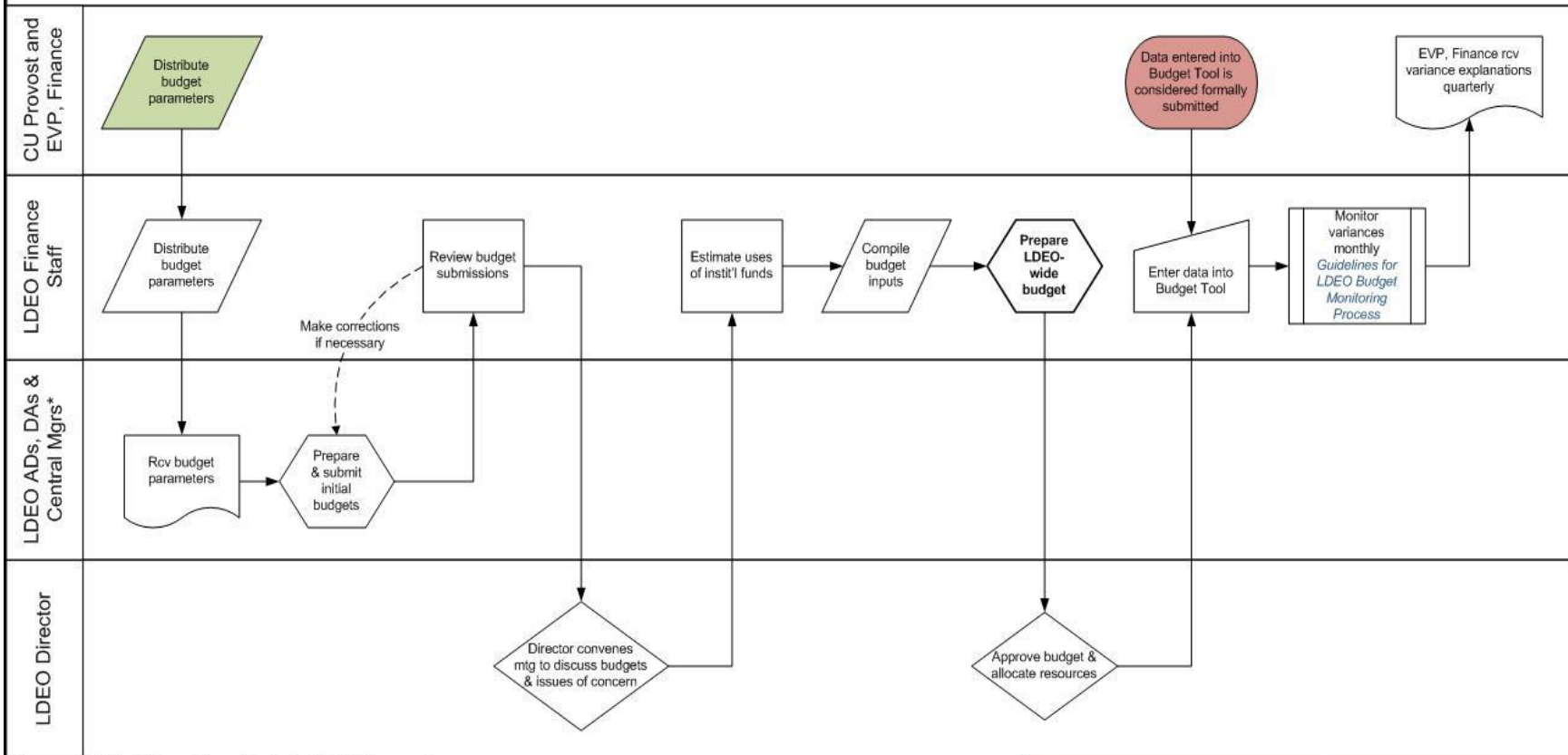






# LDEO Budget Process

December 5, 2012



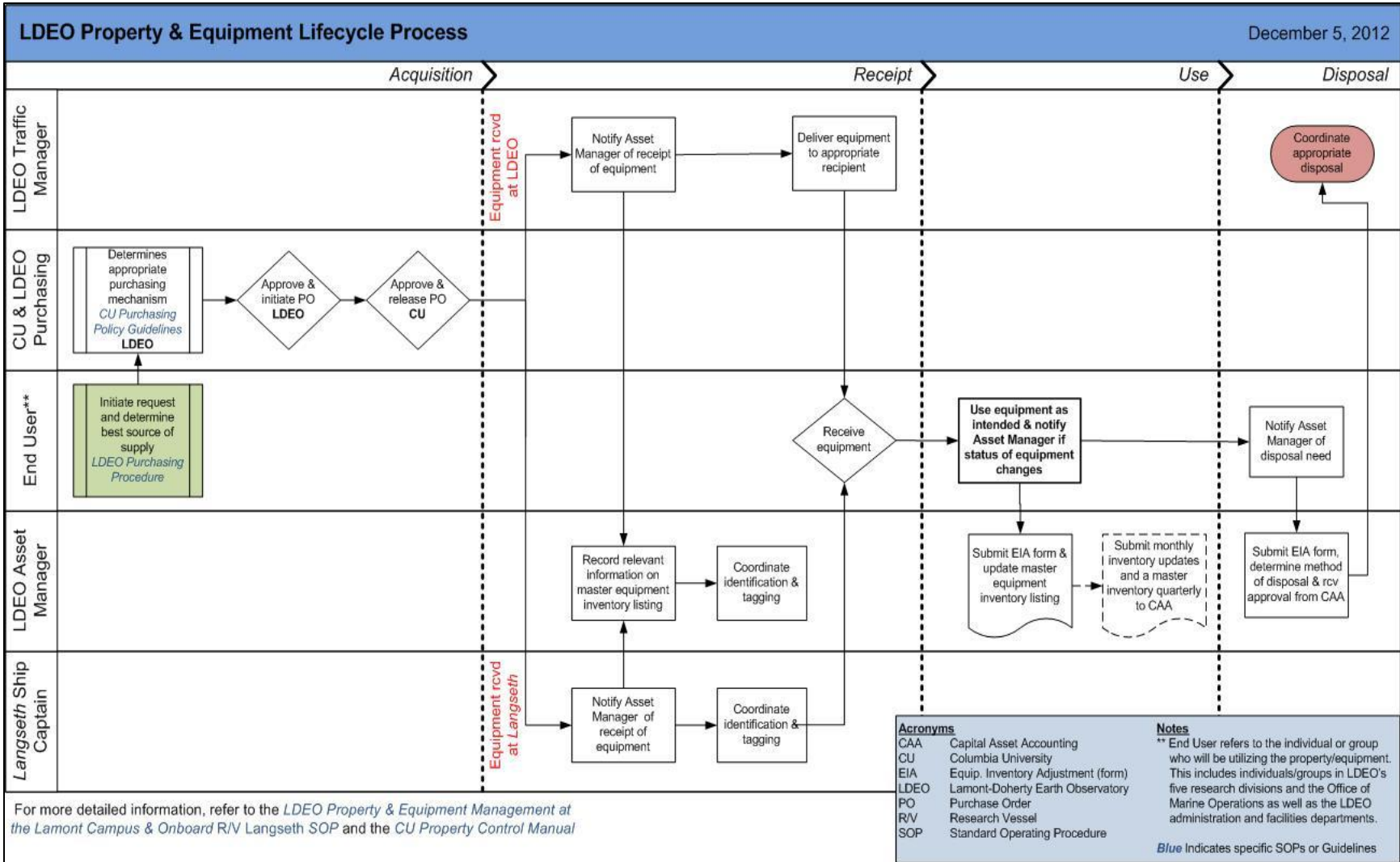
For more detailed information, refer to the LDEO Finance & Administration Standard Operating Procedure: *Guidelines for LDEO Budget Development Process*

### Acronyms

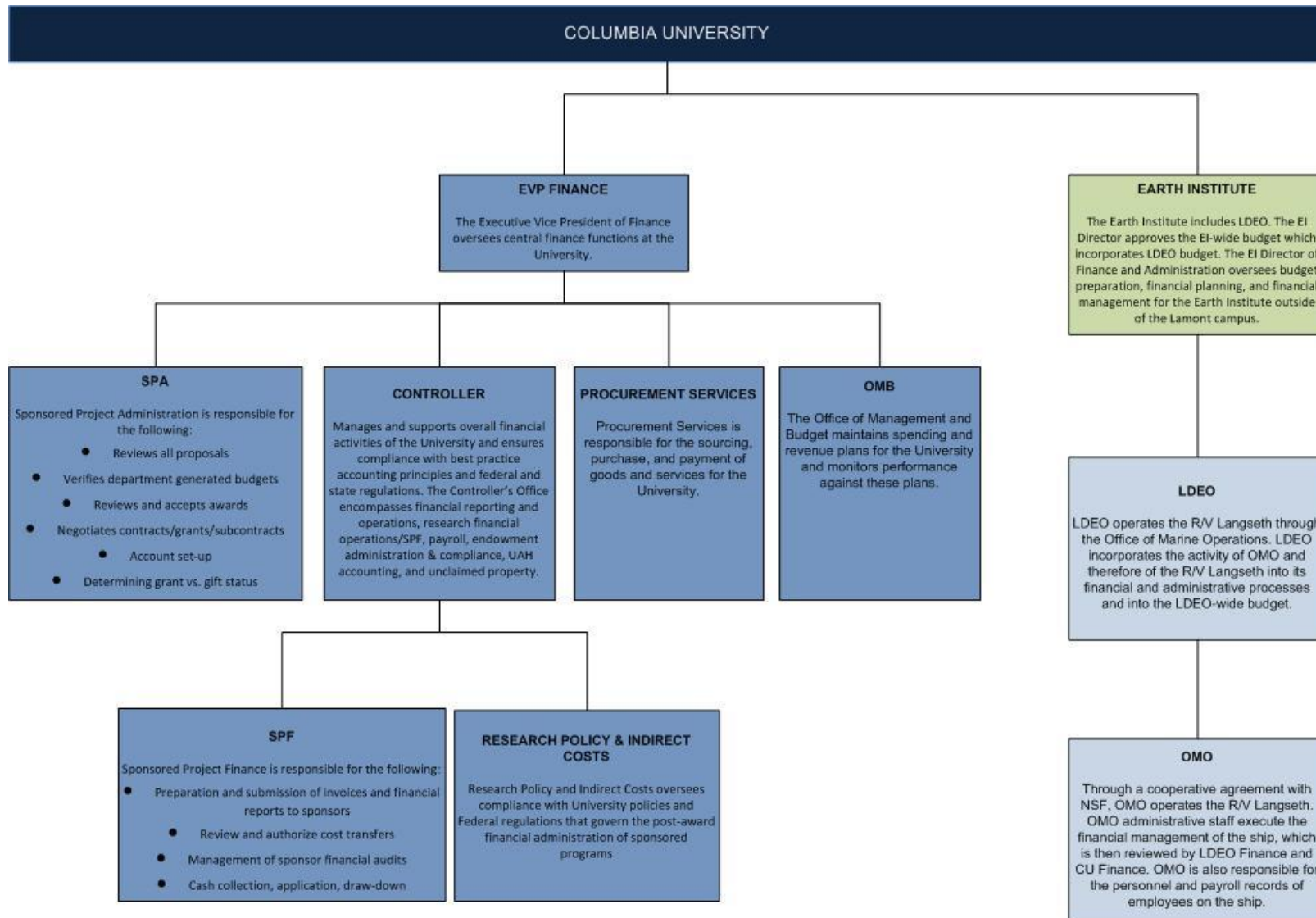
AD	Associate Director
CU	Columbia University
DA	Division Administrator
EI	Earth Institute
LDEO	Lamont-Doherty Earth Observatory
OMB	CU Office of Management & Budget
SOP	Standard Operating Procedure

### Notes

\* Refers to an AD/DA in any one of LDEO's five research divisions, the Office of Marine Operations, and administrative departments. Note that the OMO Financial Administrator performs the role of DA in this process.  
*Blue* Specific SOPs or Guidelines







		Monitoring Grant Expenditures	Financial Reporting	Purchasing	Cost Transfers	Program Income	Award Budget Prep.	Indirect Costs	Subrecipient	Monitoring	Award Closeout	Personnel Costs	Travel Advances and Reimbursement	Cost Sharing	Cash Management	Record Retention	Fastlane Permissions	
Ship	Captain of the R/V <i>Langseth</i>			X										X				
Office of Marine Operations	Technical/Purchasing Service Coordinator			X														
	Administrative Aide – Junior Buyer			X														
	Marine Operations Manager			X											X			
	Technical Services Manager			X											X			
	Marine Recruitment and Staffing Coordinator		X							X	X		X					
	Financial Administrator	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
	Principal Investigator	X	X	X	X	X	X	X	X	X	X	X	X	X				
	Associate Director, Marine Division						X									X		
Lamont-Doherty Earth Observatory	Contracts & Grants Administrative Aide	X					X			X	X	X						
	Contracts and Grants Manager				X			X					X					
	Accounts Payable Clerk			X				X		X				X				
	Accountant							X		X	X			X				
	Payroll Manager				X													
	The Receiving Department			X														
	Asset Manager			X														
	LDEO Operating Unit Managers															X		
	Finance Manager	X	X	X	X		X		X		X				X	X		
	Purchasing Manager	X		X														
	Assistant Director, Finance & Administration		X		X		X				X			X		X		
Director													X					
EI	Director, Finance & Administration		X				X											
Columbia University	Accountant, SPF		X								X			X				
	Project Manager SPF				X				X									
	Assoc.VP, Research Financial Operations, SPF													X				
	Director, SPF		X						X	X	X			X				
	Bursar					X												
	Manager, Capital Asset Accounting									X								
	Research Policy & Indirect Cost, Controller's					X					X							



## 7. COMMUNICATION PLAN

### **Purpose:**

To document the communication plan for dissemination of information, training, review and approval of all transactions and tracking of key performance indicators of LDEO and OMO. This document describes mechanisms in which various communications are made to responsible parties for the administration of government funded projects.

### **Definitions:**

DA	Division Administrator
EI	Earth Institute
EVPR	Executive Vice President for Research (CU)
LDEO	Lamont-Doherty Earth Observatory
OMO	Office of Marine Operations
PI	Principal Investigator
RC	Research Coordinator
RCT	Office of Research Compliance and Training (CU)
RP&IC	Research Policy and Indirect Cost, Office of the Controller (CU)
SPA	Sponsored Projects Administration (CU)
SPF	Sponsored Projects Finance, Office of the Controller (CU)

### **Process:**

Compliance with Columbia University policies is a shared responsibility. Individual employees are responsible for understanding policies and conducting their work in accordance with the procedures, guidelines and regulations. Lamont-Doherty Earth Observatory administrative staff play an important role in providing information to the academic, program and administrative community and act as a control to ensure compliance with University and LDEO/OMO specific Policies and Procedures.

The LDEO Contracts and Grants Manager and the Finance Manager conduct monthly kick-off meetings or when needed related to new awards. The kick-off meeting provides information such as: the budget, account setup, award terms and conditions.

In addition, the OMO Financial Administrator meets monthly with the LDEO Contracts and Grants Manager and the Financial Manager to obtain updates (e.g., NSF, Central University) related to Financial Management and Compliance issues. The OMO Financial Administrator then meets with the PI and Co-PIs, including other financial personnel to disseminate the information.

Listed below are the Communication Mechanisms used throughout Columbia University.

**Communication Mechanisms :**

<b>Mechanism</b>	<b>Medium</b>	<b>Audience</b>	<b>Responsible Party</b>	<b>Frequency</b>
Sponsored Projects Handbook	Document	DA, PI, RC, Administrators	SPA/SPF/RCT/EVPR	Once a year
EVPR Newsletter	Email/Web	University-wide researchers & research administrators	EVPR	Quarterly
GRANTS-MORNINGSIDE-DA@CUVMC.AIS.COLUMBIA.EDU	Email List	DA, PI, RC, Administrators	SPA	Ad-hoc
Grants kick-off meetings	Meeting	PI and FA	LDEO	Ad-hoc
DA Forum	Training/ Meeting	DA	SPA/SPF/RCT	Every 6 weeks
OMO Financial Management and Compliance	Meeting	PI, Co-PIs and financial personnel	FA	Monthly
Research Compliance Foundations	Training/ Meeting	DA	RCT	Twice a year
Sponsored Projects Essentials	Training/ Meeting	DA	RCT	Twice a year
University Administrative Policy Library	Website	DA, PI, RC, Administrators	RCT/RP&IC/SPA/SPF	Ad-hoc
Updates to RCT Website	Website	DA, PI, RC, Administrators	RCT	Ad-hoc
Updates to Effort Reporting Website	Website	DA, PI, RC, Administrators	RCT, RP&IC	Ad-hoc
Updates to RP&IC Website	Website	DA, PI, RC, Administrators	RP&IC	Ad-hoc
Updates to SPF Website	Website	DA, PI, RC, Administrators	SPF	Ad-hoc
Updates to SPA Website	Website	DA, PI, RC, Administrators	SPA	Ad-hoc
Updates to EI Website	Website	DA, PI, RC, Administrators	EI	Ad-hoc
Updates to OMO Website	Website	DA, PI, RC, Administrators	OMO	Ad-hoc
Updates to EVPR Website	Website	DA, PI, RC, Administrators	EVPR	Ad-hoc