

## OBSIP

### U.S. National Ocean Bottom Seismic Instrumentation Pool

This is an informational budget provided to prospective users of instruments in the U.S. National Ocean Bottom Seismic Instrumentation Pool. The institutional instrument contributors (IICs) to the National Pool will provide complete engineering and technical support for OBS operations at sea. The cost of providing this support (e.g., instrument charges, personnel support, shipping and travel) will be funded directly through the Pool; these costs do not need to be included in individual science proposals. NSF does, however, require PIs to provide an informational budget estimating these costs in any proposal requesting OBSIP instruments. For more information on OBSIP, see <http://www.obsip.org>.

Project title: *Western Atlantic Lithospheric Structure*

Principal Investigator(s): *William Menke, Spahr Webb, Vadim Levin*

Funding Agency: *NSF*

Submission deadline: *August 15, 2002*

Instruments: 20 OBS 3 component  
20 total deployments  
29 days of ship time

Date of proposed experiment: *Spring 2004*

Logistics: *2 legs of 14 days (deploy) & 15 days (recover)*

Ports: *Woods Hole, Massachusettes & Hamilton, Bermuda*

The following is an estimate of the cost of supporting the OBS operations requested in this proposal. These costs are subject to change depending on the scheduling of this project, the length and ports of the deployment and recovery legs, and the OBSIP institution that supports this project. A final budget for OBS support operations for this project will be negotiated as part of the annual cooperative agreement between NSF and the Pool IICs.

OBS Instrument drop charge:	9,021 per instrument*	180,421
	(includes batteries, deployment and, if applicable, redeployment costs)	
OBS engineering and technical support cost:		146,379
	(on shore and at sea)	
Shipping:		12,600
Travel:		25,129
Estimated total:		\$364,529

\* Varies from proposal to proposal based on the mix of instrument types and deployment lengths

## **OBSIP Instrument Use Policies and Procedures**

The U.S. National Ocean Bottom Seismic Instrumentation Pool (OBSIP) provides seismic instruments to support research on the structure and tectonics of the ocean basins, their margins, and the dynamics and structure of the Earth's interior. Funded through the National Science Foundation, the Pool makes ocean bottom seismic equipment available to NSF investigators, and to investigators at research or educational institutions with other government, private or industry funding.

The intent of these guidelines is to establish the procedures to enable investigators to request OBSIP instruments, to let them know what requirements and responsibilities are incurred in using OBSIP instruments, and to inform potential users of when and how decisions on instrument use will be made. The efficient use of OBSIP instruments will require close cooperation among all parties involved. The Principal Investigator is encouraged to contact the Chair of the OBSIP Management Group during the proposal development stage with any questions regarding OBSIP policies and procedures. Information on the numbers and technical specification of OBSIP instruments, and scheduled commitments of these instruments, is available through the OBSIP web page at <http://www.obsip.org>.

For NSF-funded projects, all OBS costs will be supported through cooperative agreements between NSF and the individual Institutional Instrument Contributors providing instruments to the Pool (currently Lamont-Doherty Earth Observatory, Scripps Institution of Oceanography, and the Woods Hole Oceanographic Institution). Thus, OBS costs do not have to be included in science budgets proposed to NSF; however, since the costs come from Marine Geology and Geophysics and Ocean Drilling Program funds, an informational budget must be included (see below). OBSIP instruments may also be used in non-NSF funded programs on an "as available" basis. Non-NSF users (except the USGS Woods Hole Field Office which is also contributing instruments to the Pool) will be charged an OBSIP Facility Use Fee in addition to the normal OBS charges.

### Procedures for Requesting OBSIP Instruments

Any research or educational institution may request the use of OBSIP instruments for experiments of scientific merit. An OBSIP Instrument Request form must be submitted to the OBSIP Management Group prior to proposal submission. The form is available on the OBSIP web page and may be electronically submitted from there.

Each request will at a minimum include the following information:

1. Date of Request
2. Project name and short project description
3. Names and contact information for the lead PI
4. Funding agency, program and proposal deadline
5. Number and type of instruments required
6. Number of deployments, length of deployments, time between deployments
7. Number of legs, length of legs, proposed ports, proposed cruise dates

8. Proposed ship(s)
9. Other special requirements

Note: maximum deployment time (without recovery) will be 12-15 months, depending on sampling rate; maximum deployment depth is 5500 m of water

#### NSF Proposal Submission

An OBSIP Informational Budget *\*must\** be included in NSF proposals requesting OBSIP instruments. NSF may not review proposals which do not include this informational budget. The 1-page OBSIP Informational Budget will include a summary of instrument mobilization and demobilization costs, instrument drop charges, technical and engineering support costs, and travel and shipping costs. This informational budget will be prepared by the Chair of the OBSIP Management Group and emailed to the PI when an Instrument Request Form is submitted. This informational budget will be in pdf format. This pdf file should be uploaded to the NSF Fastlane system in the "supplementary documentation" section of the NSF Fastlane proposal submission website.

If a proposal is a resubmission, a new Instrument Request Form should be submitted and a new, updated OBSIP Informational Budget will be provided.

None of the costs that appear in the OBSIP Informational Budget should be included in the project's science budget. The project's science budget will, however, need to include travel and salary costs for other personnel, and any other costs not specifically covered in the OBSIP Informational Budget (see below for PI Responsibilities).

#### Non-NSF Projects

OBSIP will support non-NSF funded experiments if instrumentation is available. An OBSIP Instrument Request Form must be submitted and approved by the OBSIP Management Group. Funding will be negotiated on a case-by-case basis. Typically, a subcontract will be negotiated between the non-NSF user and the Pool institution designated to support this experiment. In addition to the normal use charges, non-NSF users (except the USGS Woods Hole Field Office which is also contributing instruments to the Pool) will be charged an OBSIP Facility Use Fee in addition to the normal OBS charges. This Facility Use Fee will depend on the number of instruments and length of deployment and will be used to reduce NSF base support costs for the Pool.

#### Scheduling of OBSIP instruments

The OBSIP Management Group, in consultation with NSF, is responsible for the scheduling of OBSIP instruments. The OBSIP Management Group will typically meet in June or July of each year to schedule experiments for the following calendar year. Only experiments with confirmed funding *and* ship time will be entered into the schedule. Scheduling priorities will be set in the following order:

1. Programs funded by the Ocean Sciences Division of NSF;
2. Programs funded by other divisions of NSF;

3. Programs funded by other US government agencies\*; and
4. Other funded programs

\* USGS will have first priority for use of the 15 USGS OBH/S instruments in the Pool; USGS will be the highest priority non-NSF user for other instruments in the Pool

All other conditions being equal, the highest scheduling priority will go to experiments with the earliest funding dates, then the earliest request dates. The goal of the scheduling is to optimize the use of the instruments, and to accommodate as many experiments as possible. Therefore, it will sometimes be necessary to negotiate with the PI the exact type and number of instruments, or to move the scheduled time of an experiment.

Funded programs which cannot be scheduled, will be placed on a waiting list for scheduling at the earliest possible date consistent with the scheduling criteria outlined above. In some cases, especially for work in remote areas, ship scheduling may drive OBS scheduling.

The OBSIP Management Group will make the final decision on which Institutional Instrument Contributor supports a given experiment.

Requests can be made for OBSIP instruments at any time of the year. Instruments will be made available to users for rapid response studies as the schedule permits.

The OBSIP Management Group will publish a schedule of future instrument use on the OBSIP web page. Funded, but not yet scheduled programs, will also be listed on the OBSIP web site.

#### OBSIP Responsibilities:

OBSIP and its Institutional Instrument Contributors will be responsible for all operations and equipment relevant to seagoing operations involving OBSIP seismic instrumentation. This includes:

- ocean bottom seismic instrumentation and related equipment
- expendables (e.g. anchors, batteries, etc.) for instrument operations
- technical and engineering support personnel for instrument operation
- shipping of instruments and ancillary equipment to and from ship
- travel of OBSIP personnel to and from ship
- provide one copy of data in standard format (e.g. segy or seed) to the PI and one copy to the IRIS DMC

For NSF-funded projects, all OBS costs will be supported through the cooperative agreements between NSF and the individual Institutional Instrument Contributors supporting a funded experiment.

#### PI Responsibilities:

The responsibilities of the PI in seagoing operations utilizing OBSIP equipment are:

1. All prospective users are required to submit an OBSIP Instrument Request Form (available on the OBSIP web site). NSF proposals utilizing OBSIP instruments are required to include a 1-page OBSIP informational budget with estimated costs of the OBS operations. Requests for OBSIP Informational Budgets should be made to the Chair of the OBSIP Management Group at least 2 weeks prior to a proposal deadline. Non-NSF users must also submit an OBSIP Instrument Request Form.
2. PIs are required to provide all non-instrument support personnel for the project. This includes watchstanders for recording deployment/recovery information (e.g. instrument locations, etc.) and communicating with the bridge, and personnel for assisting with deck operations during instrument deployments and recoveries. Since OBS operations continue around the clock, this typically requires 4-6 cruise participants in addition to the PI and OBSIP personnel. The involvement of extra people beyond these minimum requirements is always encouraged. Certain cruise scenarios may require more or less personnel depending upon the workload; we recommend contacting the OBSIP Management Group Chair to discuss cruise logistics before proposal submission.
3. OBSIP technicians and engineers will not normally be available for other shipboard duties (e.g. watchstanding) during non-OBS operational periods. If OBS personnel are needed for other operations, written approval must be obtained from the OBSIP Management Group prior to the leg and additional costs (e.g. overtime) must be paid by the PI.
4. The PI is responsible for requesting sufficient ship time for all OBS operations and for handling all cruise logistics and interactions with the research vessel operator (e.g. clearances, port locations, schedule changes, personnel). Some guidelines for estimating ship time are given below. It is strongly recommended that each PI consult with the OBSIP Management Group to insure that adequate ship time for OBS operations has been requested. It is expected that OBS operations will normally take place from UNOLS vessels; utilization of a non-UNOLS vessel requires prior approval of the OBSIP Management Group and a certification in writing from the Captain that the vessel meets UNOLS safety standards.
5. PIs planning OBS operations in areas with unusual risks (e.g., severe weather, currents or seas; unusually shallow (<100 m) or deep (>5000 m) water depths, intensive bottom fishing; foreign waters in areas of political unrest) are required to notify the OBSIP Management Group of these conditions well in advance of the experiment.
6. The PI/Chief Scientist has ultimate responsibility for the safety of OBSIP personnel and the return of all OBSIP instruments and equipment. The PI/Chief Scientist should consult with the senior OBSIP engineer/technician on the leg regarding all OBS operations. If the senior OBSIP engineer/technician determines that conditions represent undue risks to OBSIP personnel or instrumentation, or if there is not an adequate plan for instrument recovery, they may terminate OBS operations.

7. All data acquired with OBSIP instruments will be archived at the IRIS DMC. The OBSIP operating institution will submit the data to the IRIS DMC; the PI must provide all necessary ancillary data (instrument locations, shot times etc.) to the OBSIP technicians prior to the end of the recovery leg. The data will be proprietary to PIs for 24 months from the date of the end of the instrument recovery leg. After this period, all data will be available to any interested investigator.

8. In any publications or reports resulting from the use of OBSIP instruments, please include the following statement in the acknowledgements section:

"The instruments used in this field program were provided by the U.S. National Ocean Bottom Seismic Instrumentation Pool which is funded by the Ocean Sciences Division of the National Science Foundation through cooperative agreements with Lamont-Doherty Earth Observatory, Scripps Institution of Oceanography and Woods Hole Oceanographic Institution. Data collected during this experiment will be available through the IRIS Data Management Center."

Please provide the Chair of the OBSIP Management Group with copies of any publications related to your experiment.

#### Guidelines for Estimating Deployment and Recovery Times

The following estimates should be used as a guideline for planning the duration of a cruise, as well as for estimating the time required for OBS shipboard operations:

- 1 hour/deployment for active source (short-deployment) experiments
- 2 hour/deployment for passive source (long-deployment) experiments
- 4 hr/recovery for all recoveries
- 0.25 hour contingency time (minimum) for each instrument deployment and recovery

These times do not include the transit time between instrument sites. However, they do take into account the time it takes to maneuver the ship on site and to acoustically interrogate the instrument. For recoveries, these time estimates also include time for the instrument to rise through the water column, reach the surface, maneuver the ship to the instrument, and recover the instrument.

Multiple deployment experiments with a fast turn-around time may require slightly more time between deployments for data recovery and instrument preparation. Additional contingency time should be allocated in areas with severe weather.

We strongly encourage that PI's talk to the OBSIP Management Group Chair to discuss additional questions or concerns regarding cruise logistics.

*This policy has been approved by the OBSIP Management Group effective 12/8/2000.*