

INFORMATION REQUIRED FOR ENVIRONMENTAL COMPLIANCE DOCUMENTS

Information is needed to complete the necessary environmental compliance actions for the proposed seismic survey activities. Under the terms of the marine Mammal Protection Act (MMPA) of 1972, an Incidental Harassment Authorization (IHA) is required for seismic programs conducted by U.S. citizens and/or from a U.S. research vessel. Additionally, pursuant to the National Environmental Policy Act (NEPA) and/or Executive Order 12114, Environmental Effects Abroad of Major Federal Actions, federal agencies must consider the environmental impacts of their actions. As such, NSF must prepare environmental analysis to help inform what potential impacts on the environment may result from the proposed activities (NSF-funded research and/or the use of the NSF owned research vessel (R/V Langseth). Depending upon the nature and location of the proposed activities, compliance with other federal regulations, such as the Endangered Species Act (ESA), Coastal Zone Management Act, and National Historic Preservation Act, may be necessary.

The Principal Investigator (PI) is asked to provide the following information about the proposed seismic survey activities (**some of which may be copied from relevant proposal sections**) to form the basis for the environmental analysis to be used for compliance with the above mentioned regulatory processes. Delay in providing the information may result in a delay in processing the necessary regulatory authorizations and consultations, and ultimately a delay in the proposed cruise.

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**Directions for Form:**

Please answer questions as completely as possible. It is acceptable to answer within body of document or as a separate attachment if necessary. Electronic documents (e.g. digital map files) can be sent via email to LDEO Office of Marine Operations. If you have any questions, please submit via email.

1. Identify funding source: Federal: \_\_\_\_\_  
State: \_\_\_\_\_  
Other: \_\_\_\_\_
  
2. Title of project and NSF proposal number (if applicable) and any collaborative proposal numbers:
  
3. (a) Name(s), affiliation(s), and email addresses of PI(s):  
  
(b) Name(s), affiliation(s), and email addresses of co-PI(s):  
  
(c) Name(s), affiliation(s), and email addresses of International Collaborator(s) (if applicable):
  
4. Designated contact for further information and review of final environmental compliance documentation:

5. What is the proposed action(s) (e.g. 2D survey along the Atlantic Margin to collect geophysical data via seismic airguns and coring, etc.)?
6. What is the purpose of the proposed action(s) (i.e. what are the scientific goals and objectives of the data collection)?:

*Provide a brief overview of the purpose of the proposed action(s) in plain language (~1 paragraph) (a):*

*Provide a more detailed description of the purpose of the proposed action(s), including equipment and methodologies that would be used (2-3 paragraphs) (b):*

**7. Provide details regarding the proposed survey:**

Proposed Survey Dates:	
Ports:	Port of departure: Port of return:
Number of operational days:	# Seismic Survey Days: _____ # of Transit Days: _____ # Deploy/Retrieve OBS days: _____ Other ( <i>Define</i> ): _____ _____ Total Number of Days: _____
Location:	The project would occur ( <i>check all that apply</i> ): 1. US EEZ: Within _____ Outside _____ 2. US State waters: Within _____ Outside _____ 3. International waters: Within _____ Outside _____ 4. Foreign Territorial waters: Within _____ Outside _____  The proposed survey area would be limited by the following geographic coordinates:
Description of Survey	

Operations:	
Water depth range during survey:	
Length of Survey Tracklines	<p><b>Primary Survey Operations:</b></p> <p>____ m (deep) ____ % of total  ____ m (intermediate) ____ % of total  ____ m (shallow) ____ % of total</p> <p>____. :  ____ m Total Secondary Survey Tracklines</p> <p><b>Secondary Survey Operations*</b> (<i>Identify any additional seismic survey tracklines that would be surveyed in the event Primary Survey Operations were completed ahead of schedule. This information would be considered during the IHA process and take estimates generated and included</i>):</p> <p>____ m (deep) ____ % of total  ____ m (intermediate) ____ % of total  ____ m (shallow) ____ % of total</p> <p>____. :  ____ m Total Secondary Survey Tracklines</p> <p><b>Contingency lines:</b>  An additional 25% of the Total Survey Tracklines (Secondary + Primary) would be added to account for re-surveying tracklines due to poor data quality, weather, mechanical issues, infill, etc.)</p> <p>____ Primary Tracklines  + ____ Secondary Tracklines</p> <p>____. :  = ____  + ____ (25% of Primary + Secondary Tracklines)  = ____ Total Survey Tracklines</p> <p><b>Survey Operations With Mitigation Airgun:</b>  <i>If data collection is not necessary during trackline turns, a mitigation gun would be operated, unless turns would take longer than 3 hours (in which case no airguns would be operated).</i></p> <p>Would data be collected during trackline turns:  ____ Yes ____ No</p> <p>If applicable, estimate length of turns with mitigation gun:  ____ m (deep)  ____ m (intermediate)  ____ m (shallow)</p> <p>____. :  ____ m Total Tracklines Turns With Mitigation Airgun</p>
Additional Vessels:	<p><i>IDENTIFY IF ANY ADDITIONAL VESSELS WOULD BE INVOLVED IN THE PROPOSED SURVEY ACTIVITIES AND ANY ACOUSTIC SOURCES ASSOCIATED WITH THAT VESSEL (E.G. MBE, SBP, ETC.)</i></p>

Other:	<i>IDENTIFY ANY OTHER UNIQUE CHARACTERISTICS OF THE PROPOSED CRUISE (E.G. EQUIPMENT, METHODOLOGIES, PARTNERSHIPS, ETC.).</i>
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8. Provide details regarding the proposed acoustic sources:

<b>Acoustic Equipment</b>		<b>Details</b>
Energy Sources	Airguns	Number of airguns: ____ Total volume: ____ in <sup>3</sup> Tow depth: ____ m Shot interval: ____ m(or sec) (during MCS) ____ m(or sec) (during OBS)
	MBES*	Type:
	SBP*	Type:
	ADCP*	Type:
	Acoustic Releases for OBS	Interrogates at: Response received at:
Receivers	OBS	Number and type of OBS (if any) (e.g. short pd/broadband, WHOI, etc.): Type: _____ # OBS: Type: _____ # OBS:
	MCS Streamer	Length: ____ km

*\* Unless otherwise noted, other acoustic sources, such as MBE, ADCP, and SBP, would be assumed to be operated during survey at standard settings, continuously, and simultaneously with airguns.*

9. Provide information about the proposed survey planning phase:

- a. *Describe why the energy source level was selected and why it is optimal. Were smaller airgun source levels considered?*
- b. *Describe why the survey location was selected and why it is optimal. If applicable, describe why this survey location was chosen over alternative locations.*
- c. *Describe any unique reasons (aside from personal) why the survey is proposed with the current schedule (e.g. consideration of endangered species, weather, etc.). Were alternative survey timings considered?*
- d. *Describe any alternative technologies to airguns that could be used to collect the data desired.*

10. *Are you aware of any Marine Protected Areas (MPAs), Sanctuaries, and/or areas of sensitivity in or near the proposed survey area? If so, provide a description and coordinates (if possible, identify the location)*

- 11.** *Are you aware of any existing/historical seismic data for the proposed survey area? If so, can you briefly explain why additional seismic data is necessary to meet your research objectives (e.g. if historical seismic data reflects antiquated technology or was of poor quality, etc.)?*
- 12.** *Describe the societal relevance of the proposed research activities (e.g. NSF broader impacts). Could the research results be used to enhance knowledge about other similar environments?*
- 13.** *What other activities may have or could occur within the proposed survey area:*
  - a. Are you aware of any other US- or internationally-funded scientific research activities (seismic and non-seismic), or other activities, that have occurred in the proposed survey area in the recent past, or are any proposed to occur in the future?*
  - b. Are you aware of any environmental compliance documents been prepared for these other activities?*

Please be aware you may be asked to participate in regional outreach efforts depending on the nature and location of the proposed activities.