



NATIONAL SCIENCE FOUNDATION  
4201 WILSON BOULEVARD  
ARLINGTON, VIRGINIA 22230

NSF 17-076

## Dear Colleague Letter: Using JOIDES Resolution to Collect Cores with Advanced Piston Coring (APC) System

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April 10, 2017

Dear Colleagues:

The Division of Ocean Sciences (OCE) of the National Science Foundation (NSF) announces that proposals will now be accepted for U.S. researchers to use the drill ship *JOIDES Resolution* to collect cores using the Advanced Piston Coring (APC) system up to sub-bottom depths of 100 meters to address research on multiple aspects of the ocean basins.

This program, referred to as "JR100," was outlined in a previous Dear Colleague Letter ([NSF 17-018](#)). This new NSF Dear Colleague Letter provides the specific dates and geographic area of operation for the first JR100 cruise and updates information previously provided on proposal preparation requirements.

### GEOGRAPHIC AREA AND DATES OF OPERATION

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*JOIDES Resolution* is scheduled to be transiting from Papeete, Tahiti, to Punta Arenas, Chile, from 19 December 2018 to 18 January 2019. Approximately thirteen (13) days during this transit period will be available for cruise operations (including coring and site-to-site transit time) with the remaining seventeen (17) days allocated to the direct transit route between ports. The cruise participants will stay on the ship during the entire thirty days.

### PROPOSAL PREPARATION

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JR100 proposals will be reviewed using the two standard established NSF merit review criteria (Intellectual Merit and Broader Impacts) and be evaluated in the competitive context of the NSF core science programs. Prior to writing a proposal to use *JOIDES Resolution* in the JR100 program, Principal Investigators (PI) are strongly encouraged to contact the cognizant Program Officer of the Program in the Division of Ocean Sciences at NSF to which their proposal will be submitted for guidance. Prospective PIs will also need to work with the [JOIDES Resolution Science Operator](#) (JRSO) prior to proposal submission to refine operational needs and provide information in the proposal regarding core-processing requirements, science party expertise and size, coring/transit times (see [coring/transit time estimator](#)), core shipment logistics, and permitting issues. In all other aspects, a JR100 coring proposal is identical to a science proposal that would require use of a vessel that is part of the UNOLS Academic Research Fleet (ARF), but would instead be based on the APC system operating on *JOIDES Resolution*. A UNOLS ship-time request form is not required for a JR100 submission.

For a successful proposal, the NSF science program to which the proposal is submitted will provide funding for the types of items normally included in an ARF-based coring proposal including, but not limited to, funding for PI and cruise participant salaries, core shipments, non-standard analytical equipment required at sea, and post-cruise research funding. Funding sources for the ship operations to implement successful proposals will be determined through conversations between cognizant NSF Program Directors.

*JOIDES Resolution* has a fully-equipped laboratory stack to process, analyze, and store cores, and the JRSO will provide technical assistance to the cruise participants in a similar fashion to International Ocean Discovery Program (IODP) expeditions. The level of core processing on a JR100 cruise, ranging generally from simply cutting the cores into 1.5-meter sections for storage to fully utilizing the analytical capabilities available in the *JOIDES Resolution* laboratories, will depend upon the science needs justified in the proposal. Any analytical equipment required by the PI that is not part of the current IODP analytical suite on the ship must be approved by the JRSO. The costs associated with the use of this non-standard equipment (e.g., shipping, consumables, staff to operate the equipment, etc.) are the responsibility of the PI and must be justified in the science proposal.

Cruise participant requirements (number of participants, expertise, etc.) on the vessel must be clearly described and justified in the NSF proposal and developed in consultation with JRSO prior to proposal submission. Cruise staffing will be determined by a combination of the number of persons required for shipboard core processing as defined by the science needs and funding constraints from the NSF-OCE science program(s) to which the proposal is submitted. All cruise participants will be subject to the [medical examination protocols](#) currently used by the JRSO for IODP operations.

All data collected using *JOIDES Resolution* equipment during the cruise will be provided to the PI by the JRSO at the end of the cruise. The PI is responsible for archiving data collected with non-*JOIDES Resolution* analytical equipment. Per normal NSF guidelines, each NSF proposal will require a Data Management Plan (see information in the NSF [Proposal & Award Policies & Procedures Guide](#)). In addition, a "Cruise Preparation Timeline" (including such items as pre-cruise meetings with the JRSO, approval of coring sites by the JRSO safety panel, staffing deadlines, shipping deadlines medical approvals, permitting, etc.), developed in consultation with the JRSO, must be included in the proposal. Access to the cores and the archival of data collected from cores (both shipboard and shore-based data) will follow the [NSF Division of Ocean Sciences Sample and Data Policy](#). Core shipments to a repository identified in the proposal and approved by NSF are at the expense of the PI's science award, as is the case with coring cruises that occur on any NSF-funded award using ARF or other vessels. Prospective PIs should work with the JRSO to coordinate shipping logistics.

[Site characterization requirements](#) will be similar to those required for an IODP proposal to collect cores from 0-100 mbsf. The APC system will be the only over-the-side tool used during this particular cruise. Any other coring (e.g., gravity cores, multi-cores) or seismic (e.g., multi-beam) site characterization necessary for the science justification will not be conducted during this cruise.

## **CONTACT INFORMATION**

For questions and comments please contact:

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Sincerely,

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