National Science Foundation
WHERE DISCOVERIES BEGIN

Division of Ocean Sciences

DESIGN AND CONSTRUCTION OF REGIONAL CLASS RESEARCH VESSELS (RCRV)

This program has been archived.

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PROGRAM GUIDELINES

Solicitation **12-558**

Important Information for Proposers

A revised version of the *NSF Proposal & Award Policies & Procedures Guide* (PAPPG) (NSF 15-1), is effective for proposals submitted, or due, on or after December 26, 2014. The PAPPG is consistent with, and, implements the new Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (Uniform Guidance) (2 CFR § 200). Please be advised that the guidelines contained in NSF 15-1 apply to proposals submitted in response to this funding opportunity.

DUE DATES

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SYNOPSIS

The Division of Ocean Sciences (OCE) Integrative Programs Section (IPS) is soliciting proposals to manage the design and construction of up to three (3) Regional Class Research Vessels, to be based on an existing, NSF-owned concept design. **Advancement through successive project phases, including the award of a shipyard contract for the construction phase, will be contingent upon successful project execution by the Awardee as determined through NSF review and the availability of funds. The actual number of vessels built will be contingent upon projected future science utilization and the availability of funds.**

NSF will award a single Cooperative Agreement to a Lead Institution (LI) as the Awardee who will manage each phase of the design, construction and trials. Funding for the project will be awarded through Cooperative Support Agreements (CSA's) for each successive phase as described below. **Funding of subsequent phases will be contingent upon successful completion of prior phases.** Success will be determined through NSF review at key project milestones in accordance with the NSF Large Facilities Manual. **Unsuccessful project execution will result in NSF invoking one of several possible project off-ramps followed by solicitation for a new Lead Institution.**

All support is contingent upon appropriations from Congress and approval by the National Science Foundation as indicated herein. The proposing LI must demonstrate its ability to undertake the successful direction, management, technical oversight, procurement, construction, scientific outfitting, sea trials and post delivery activities of the vessel(s) as described herein. The proposing LI should demonstrate its ability to leverage planning and construction of the RCRV's to advance academic research; support investments in faculty development and graduate/undergraduate education; and engage in collaborative research.

Organizations responding to this program solicitation may, at their discretion, include a proposal to operate the first RCRV for a period not to exceed five (5) years, provided that it shall (1) operate the vessel in the appropriate geographic region based on coastal and near coastal science utilization at the time of delivery, and (2) operate the vessel with the highest degree of economic efficiency within that region. **The LI should anticipate an external review of operational effectiveness and quality of service after five (5) years of operation and, assuming a positive review, re-competition after ten (10) years of operation.** Re-competition does not imply that the Operating Institution will be required to change, but rather that it will be open for potential change. If the 5-year review is not satisfactory, NSF may decide to re-compete earlier than 10 years.

Selection of Operating Institutions for any additional vessels will be conducted by means of a separate competition that will be completed prior to delivery of the first RCRV. The selected Lead Institution will be allowed to compete for operation of any follow-on vessels.

The current RCRV design was developed through an interagency agreement with the U. S. Navy's Program Executive Office (Ships), which produced two competing vessel designs for a 155' multi-purpose oceanographic research ship capable of operating for up to 21 days in three distinct regions; the U.S. East, West and Gulf Coasts. That effort was completed in early 2009. A panel of experts was convened by NSF later that year to review the designs and recommend the one considered most favorable for further development.

During Phase I of the anticipated award, the existing design will be re-evaluated and refreshed by the Awardee based on (1) current regulatory requirements, and (2) recommendations from the University-National Oceanographic Laboratory System (UNOLS) Fleet Improvement Committee (FIC) as agreed to by NSF. An analysis of the feasibility and costs associated with acquiring and converting an existing vessel to meet the technical/operational requirements of the refreshed design shall accompany the analysis of construction costs for a new build RCRV. In accordance with the NSF Large Facilities Manual, an in-depth Conceptual Design Review (CDR) will be conducted during Phase I, the success of which will determine NSF approval of Awardee progression toward a Preliminary Design Review (PDR). A successful PDR will be required to support inclusion of the RCRV Project in a future Major Research Equipment and Facilities Construction (MREFC) budget request to Congress.

Following successful completion of PDR and NSF approval for inclusion of the RCRV in a future MREFC budget request, the LI will manage the shipyard selection process (Phase II). This Phase will include in-depth NSF review of the proposed Acquisition Strategy.

The LI will subsequently manage the entire construction effort (Phase III) for up to three hulls, contingent upon a successful Final Design Review (FDR), and the availability of funding. For efficiency of production, the hull and major machinery of the RCRVs will be identical and the arrangements nearly identical. Slight variations in the science outfitting may be made to suit the requirements of a particular region. The LI will also manage the trials and delivery of all three hulls (Phase IV) and assist in transition of the vessels to their respective Operating Institutions.

The proposal must demonstrate the Lead Institution's past experience in construction, conversion, maintenance and/or management of vessel operations in support of science and education as well as their ability to assemble a qualified team to successfully execute the RCRV project within cost, scope and schedule.

Following successful completion of Phase IV, the selected Operating Institution(s) will assume responsibility for the management, operation and maintenance of the vessel(s) to support NSF and other federally-funded oceanographic research projects. Operational funding for the RCRV(s) will be reviewed and negotiated annually through five-year Cooperative Agreement(s) with the

Ship Operations Program, Division of Ocean Sciences. NSF intends that, following delivery and turnover of the RCRV(s), the selected Operating Institution(s) will obtain University-National Oceanographic Laboratory System (UNOLS) membership (See http://www.unols.org) and the ship(s) will be scheduled through the UNOLS scheduling process, allowing all interested funded scientists equal access to the facility.

NSF will retain title to the RCRV(s).

REVISIONS AND UPDATES

What Has Been Funded (Recent Awards Made Through This Program, with Abstracts)

Map of Recent Awards Made Through This Program