



National Science Foundation
4201 Wilson Boulevard
Arlington, Virginia 22230

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Dear Colleague Letter: National Radio Astronomy Observatory

Consistent with the National Science Board Resolution on Competition and Recompetition of National Science Foundation (NSF) Awards ([NSB-08-12](#)), NSF will compete the next cooperative agreement for the management and operation of the National Radio Astronomy Observatory (NRAO) and North American (NA) contributions to the international Atacama Large Millimeter/submillimeter Array (ALMA) through an open, merit-based review process. The Division of Astronomical Sciences (AST) of the Directorate for Mathematical and Physical Sciences (MPS) is currently preparing the program solicitation, which is expected to lead to the award of ten-year cooperative agreement(s) for the management and operation of NRAO and NA ALMA following the expiration of the current cooperative agreement in 2015.

NSF is currently assessing whether to separate the management and operation of NRAO and NA ALMA. The result of this assessment will inform the competition guidelines as described in the program solicitation.

This letter provides general information regarding the upcoming competition and invites potential proposing organizations to meet with NSF and identify any information needed for proposal preparation.

ELIGIBILITY INFORMATION

The competition for the management and operation of NRAO and NA ALMA will be open to the following types of organizations or consortia of organizations: academic institutions, other not-for-profit or nonprofit organizations, and any industrial firm operating as an autonomous organization or as an identifiable, separate operating unit of a parent organization. NSF will consider proposals from consortia including international partnerships, but NSF funds may be awarded only to U.S. organizations.

As a Federally Funded Research and Development Center (FFRDC), NRAO must be managed in the public interest with objectivity and independence, free from organizational conflicts of interest, and with full disclosure of its affairs to NSF. NSF will have overall responsibility for award oversight, including technical, programmatic, and financial and administrative performance of the awardee(s).

PROGRAM DESCRIPTION

The NRAO mission is to enable the scientific research community to perform forefront research into the Universe at radio wavelengths. In partnership with the community, NRAO: (1) provides world-leading telescopes, instrumentation and expertise; (2) works with colleges and universities to train the next generation of scientists and engineers; and (3) promotes astronomy to foster a more scientifically literate society.

NRAO telescopes annually serve over 1,500 users worldwide and are available to any qualified scientist, regardless of institutional or national affiliation. Observing time is available on a competitive basis after evaluation of research proposals on the basis of scientific merit, on the capability of the instruments to do the work, and on the availability of the telescope during the requested time. In addition, NRAO supports both formal and informal education and public outreach programs for teachers, students and the general public, including public visitor centers in Green Bank, West Virginia, and near Socorro, New Mexico, as well as research and training programs for undergraduate and graduate students and

postdoctoral scholars.

NRAO is presently headquartered on the University of Virginia campus in Charlottesville, Virginia. Major domestic observing facilities currently include the Robert C. Byrd Green Bank Telescope (GBT), located at the Green Bank Observatory in the National Radio Quiet Zone, the Karl G. Jansky Very Large Array (JVLA), near Socorro, and the Very Long Baseline Array (VLBA), with antennas at ten sites across the continental United States and on the islands of Hawaii and St. Croix, U.S. Virgin Islands. Operated between 300 MHz and 100 GHz with an unblocked aperture and high surface accuracy, the 100-meter GBT is the world's largest fully steerable, single-dish radio telescope. Located in west-central New Mexico, JVLA consists of twenty-seven 25-meter radio telescopes in an extended, reconfigurable array operating at frequencies from 1 to 50 GHz, with some capabilities also present below 1GHz. Recently upgraded with state-of-the-art digital electronics, low-noise receivers, a wideband digital correlator, and fiber optic transmission systems, the JVLA provides unprecedented sensitivity, frequency coverage and imaging capability at centimeter wavelengths. The VLBA consists of a transcontinental network of ten 25-meter antennas, operating at frequencies ranging from 300 MHz to 90 GHz, and a state-of-the-art software correlator facility in Socorro. The VLBA is the premier ultra-high resolution radio-wavelength array in the world, with applications ranging from sub-milli-arcsecond resolution imaging to micro-arcsecond astrometry.

NRAO currently also leads the North American contributions to ALMA. ALMA is an international collaboration among "North America" (US, Canada and Taiwan), Europe (represented by the European Southern Observatory, ESO), East Asia (Japan and Taiwan) and Chile. ALMA, due for completion in 2013, consists of a 66-telescope array operating at frequencies from 80 to 950 GHz in the high Atacama Desert of northern Chile. The awardee for ALMA will act as the North American Executive.

SPONSOR'S CONCEPT OF NRAO and NA ALMA OPERATIONS

As the selected managing organization(s), the awardee(s) will work closely with NSF and the scientific research community to ensure that, within available resources, NRAO and NA ALMA support, sustain and advance frontier science as enabled by NRAO and NA ALMA's unique research capabilities and as promoted through a culture of excellence. The awardee(s) will be accountable for fulfilling the NRAO and NA ALMA missions through visionary strategies that capitalize on the Federal investment to serve the scientific community and to promote world-class research and education.

The awardee(s) will be responsible for the overall management and performance of NRAO and NA ALMA, including the infrastructure, instrumentation and staff, and for maximizing the benefits to the scientific research community through a strategically planned scope of activities. In discharging these responsibilities, the awardee(s) will ensure that NRAO and NA ALMA maintain their character as multidisciplinary and multi-user facilities that primarily enable first-rate visitor research.

In cooperation with NSF and within available resources, NRAO and NA ALMA will plan and execute viable, coherent and inclusive programs of research and education, consistent with the objectives and priorities of the scientific community. The awardee(s) will manage facilities and equipment provided by NSF, will provide additional facilities and equipment as necessary to fulfill the proposed programmatic scope, and will develop diverse and inclusive teams of expert support and technical personnel to manage NRAO and NA ALMA as scientifically competitive research and education facilities. The facilities are multi-user resources; as such, a significant portion of the NRAO and NA ALMA research and education programs should be carried out in collaboration with their stakeholder communities.

NSF intends that NRAO and NA ALMA should serve as exemplars of management excellence. The awardee(s) will be expected to meet the highest standards for service and delivery to the scientific community and to demonstrate proactive and effective approaches to performance management. The awardee(s) will ensure that NRAO and NA ALMA operate with integrity and transparency, maintaining quality and responsiveness in administration and management.

ANTICIPATED COMPETITION SCHEDULE

This notice does not constitute a solicitation; therefore, no award of any kind will result from this notice. Although the competition is still in the planning stage, NSF anticipates that a program solicitation will be issued in the second quarter of 2013. The solicitation will specify all program guidelines and proposal requirements, including budgetary information, review criteria, exceptions to [NSF Grant Proposal Guide](#) proposal preparation instructions, and a schedule for site visits and meetings for potential proposers.

It is expected that the program solicitation will call for the submission of required Letters of Intent, due 90 days after publication of the solicitation. The Letters are expected to provide a statement of the organization's capabilities to perform the management and operation of NRAO and/or ALMA, as well as an outline of the organization's vision and design concept for the future of the observatories. The Letters would be intended to provide an overview of the applicant's approach, and as such will be limited in length.

The anticipated due date for full proposals in response to the program solicitation is six months following publication of the solicitation.

REQUESTS FOR INFORMATION

All inquiries regarding this announcement and the competition for the management and operation of NRAO and NA ALMA should be directed to the Primary Contacts listed below.

NSF invites requests for individual conferences with NSF from eligible organizations interested in this competition. At conferences, organizations may request clarification of general aspects of the competition or identify to NSF any information needed for proposal preparation. Requests should be submitted via email to the Primary Contacts listed below no later than 1 August 2012.

SOURCES OF ADDITIONAL INFORMATION

- National Science Foundation, Astronomical Sciences: <http://www.nsf.gov/div/index.jsp?org=AST>
- National Radio Astronomy Observatory and NA ALMA: <http://www.nrao.edu>
- Atacama Large Millimeter/submillimeter Array: <http://www.almaobservatory.org/>

PRIMARY CONTACTS

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Sincerely,
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