

The Fire Research Grants Program will provide funding for innovative ideas in the fire research area generated by the proposal writer, who chooses the topic and approach, consistent with the program description and objectives of this notice.

SUPPLEMENTARY INFORMATION:

Precision Measurement Grants Program

Dates: Applicants for the Precision Measurement Grants Program must submit an abbreviated proposal for preliminary screening. Based on the merit of the abbreviated proposal, applicants will be advised whether a full proposal should be submitted. The abbreviated proposals must be received at the address listed below no later than 5 p.m. eastern standard time on March 24, 2003. Proposals received after this deadline will be returned with no further consideration. Finalists will be selected by approximately May 9, 2003, and will be requested to submit full proposals to NIST by close of business on June 20, 2003. NIST expects to issue awards on or before September 30, 2003.

Addresses: For the Precision Measurement Grants Program, applicants are requested to direct technical questions and submit an abbreviated proposal (original and two signed copies), with a description of their proposed work of no more than five double spaced pages to: Dr. Peter J. Mohr, Manager, NIST Precision Measurement Grants Program, National Institute of Standards and Technology, Bldg. 225, Rm. B161, 100 Bureau Drive, Stop 8401, Gaithersburg, MD 20899-8401. Tel: (301) 975-3217. E-mail: mohr@nist.gov. Web site: <http://physics.nist.gov/pmg>.

Although applicants are not required to submit more than three copies of the proposal, the normal review process for the Precision Measurement Grants Program utilizes 10 copies. Applicants are encouraged to submit sufficient proposal copies for the full review process if they wish all reviewers to receive color, unusually sized (not 8.5" x 11"), or otherwise unusual materials submitted as part of the proposal. Only three copies of the Federally required forms are needed.

Authority: The authority for the Precision Measurement Grants Program is as follows: As authorized by 15 U.S.C. 272 (b) and (c), NIST conducts directly, and supports through grants and cooperative agreements, a basic and applied research program in the general area of fundamental measurement and the determination of fundamental constants of nature.

Program Description and Objectives: The program description and objectives for the Precision Measurement Grants

Program are as follows: as part of its research program, since 1970 NIST has awarded Precision Measurement Grants primarily to universities and colleges so that faculty may conduct significant, primarily experimental research in the field of fundamental measurement or the determination of fundamental constants. NIST sponsors these grants and cooperative agreements primarily to encourage basic, measurement-related research in universities and colleges and other research laboratories and to foster contacts between NIST scientists and those faculty members of academic institutions and other researchers who are actively engaged in such work. The Precision Measurement Grants are also intended to make it possible for researchers to pursue new, fundamental measurement ideas for which other sources of support may be difficult to find. There is some latitude in research topics that will be considered under the Precision Measurement Grants Program. The key requirement is that the proposed project support NIST's ongoing work in the field of basic measurement science, which includes:

1. Experimental and theoretical studies of fundamental physical phenomena which test the basic laws of physics or which may lead to new or improved fundamental measurement methods and standards.

2. The determination of important fundamental physical constants.

Although proposals for either experimental or theoretical research will be considered, the former will be given preference because of the more immediate applicability of experimental work to metrology. Proposals from workers at the assistant and associate professor level who have some record of accomplishment are especially encouraged in view of the comparative difficulty researchers have in obtaining funds at the early stages of their careers.

Typical projects which have been funded through the NIST Precision Measurement Grants Program include:

- (1) Precision optical spectroscopy of positronium, S. Chu, Stanford University.

- (2) Spectroscopy of francium: towards a precise parity nonconservation measurement in a laser trap, L. A. Orozco, State University of New York at Stony Brook.

- (3) Measurement of Newton's constant G using a new method, J.H. Gundlach, University of Washington.

- (4) Measurement of the polarization of the cosmic microwave background, S.T. Staggs, Princeton University.

- (5) Combining the quantum Hall and AC Josephson effects for electric current

metrology, E.A. Gwinn, University of California, Santa Barbara.

- (6) A test of CPT symmetry using a new K-3He self-compensating magnetometer, M.V. Romalis, University of Washington.

Eligibility: Eligible applicants are institutions of higher education, other non-profits, commercial organizations, international organizations, State, local and Indian tribal governments and Federal agencies with appropriate legal authority.

Award Period and Funding

Availability: Applicants should propose multi-year projects for up to three years at no more than \$50,000 per year. NIST anticipates spending \$100,000 this year for two new grants at \$50,000 each for the first year of the research projects. NIST may award all, none or some of these new awards. Second and third year funding will be at the discretion of NIST, based on satisfactory performance, continuing relevance to program objectives, and the availability of funds.

Proposal Review Process: For the Precision Measurement Grants Program, to simplify the proposal writing and evaluation process, the following selection procedure will be used:

Applicants will initially submit abbreviated proposals, containing a description of the proposed project, including sufficient information to address the evaluation criteria, with a total length of no more than five double spaced pages, to the mailing address given above in the *Addresses* section. These proposals will be screened to determine whether they address the requirements outlined in this notice. Proposals that do not meet those requirements will not be considered further. Eight independent, objective individuals, at least half of whom are NIST employees, and who are knowledgeable about the scientific areas that the program addresses will conduct a technical review of each proposal, based on the evaluation criteria described in the Evaluation Criteria section for this program. The proposals will then be ranked based on the average of the reviewers' rankings. If non-Federal reviewers are used, the reviewers may discuss the proposals with each other, but ranks will be determined on an individual basis, not as a consensus.

The Precision Measurement Grants Program manager, the selecting official, will then select approximately four to eight finalists. In selecting finalists, the selecting official will take into consideration the results of the reviewers' evaluations, including rank,