

OPEN ANNOUNCEMENTS:

March 24, 2008

AGENCY: NSF award instrument for each proposal selected pursuant to this announcement.
TITLE: Industry/University Cooperative Research Centers Program
DEADLINE: March 28, 2008
LINK: http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf07537

The Industry/University Cooperative Research Centers (I/UCRCs) program develops long-term partnerships among industry, academe, and government. The centers are catalyzed by a small investment from the National Science Foundation (NSF) and are primarily supported by industry center members, with NSF taking a supporting role in their development and evolution. Each center is established to conduct research that is of interest to both the industry and the center. An I/UCRC contributes to the Nation's research infrastructure base and enhances the intellectual capacity of the engineering and science workforce through the integration of research and education.

AGENCY: NSF
TITLE: Joint Domestic Nuclear Detection Office/National Science Foundation: Academic Research Initiative
DEADLINE: April 2, 2008
LINK: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13414

In FY 2007, the Domestic Nuclear Detection Office (DNDO) within the Department of Homeland Security (DHS) will invest, in partnership with the National Science Foundation (NSF), in leading edge, frontier research at academic institutions. This transformational research effort will be focused on detection systems, individual sensors or other research that is potentially relevant to the detection of nuclear weapons, special nuclear material, radiation dispersal devices and related threats. Research that would benefit from incorporation of social and behavioral science components is appropriate for consideration. The joint DNDO/NSF effort, in coordination with the efforts of other agencies, seeks to advance fundamental knowledge in new technologies for the detection of nuclear threats and to develop intellectual capacity in fields relevant to long-term advances in nuclear detection capability. This research, and the research community that will be built under the ARI, is seen as critical to our nation's ability to deploy effective nuclear detection measures to counter the serious threat of a nuclear terrorist attack. Proposals outside of the scope described in this solicitation will be returned without review. Research proposals on detection of biological, chemical, and conventional weapons are specifically excluded from the scope of this solicitation.

AGENCY: NSF
TITLE: Center for Research at the Interface of the Mathematical and Biological Sciences
DEADLINE: April 2, 2008
LINK: http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf07597

This solicitation requests proposals to establish a Center to stimulate research and education at the interface of the mathematical and biological sciences. The Center will serve the biological and mathematical communities by providing mechanisms to foster synthetic, collaborative, cross-disciplinary studies. It will play a pivotal role by improving understanding and modeling of biological problems that can be gained only by using approaches of mathematical, statistical and computational biology. The Center also will play a critical role in addressing national needs, including the area of plant and animal infectious disease modeling, and provide knowledge that will be useful to policy makers, government agencies, and society.

AGENCY: NSF
TITLE: Advanced Learning Technologies (ALT)
DEADLINE: April 25, 2008
LINK: http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf06535

Through the Advanced Learning Technologies (ALT) program, the CISE and EHR Directorates of NSF support research that (1) enables radical improvements in learning through innovative computer and information technologies, and (2) advances research in computer science, information technology, learning, and cognitive science through the unique challenges posed by learning environments and learning technology platforms. Integrative research approaches that build across disciplines and establish tight linkages among theory, experiment, and design are strongly encouraged. Technology goals may include systems for tutoring or assessment, modeling and sensing of cognitive or emotional states, context awareness, natural language interfaces, collaboration, knowledge management, and non-traditional goals that redefine the roles of technology in learning. Educational foci for ALT projects must include an area of science, technology, engineering, or mathematics (STEM), or general cross-cutting skills directly relevant to STEM.

AGENCY: NSF
TITLE: Emerging Frontiers in Research and Innovation
DEADLINE: April 30, 2008
LINK: http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf07579

The Directorate for Engineering at the National Science Foundation has established the Office of Emerging Frontiers in Research and Innovation (EFRI) to serve a critical role in focusing on important emerging areas in a timely manner. The EFRI Office is launching a new funding opportunity for interdisciplinary teams of researchers to embark on rapidly advancing frontiers of fundamental engineering research. For this solicitation, we will consider proposals that aim to investigate emerging frontiers in the following two specific research areas: (1) Cognitive Optimization and Prediction: From Neural Systems to Neurotechnology (COPN), and (2) Resilient and Sustainable Infrastructures (RESIN). EFRI seeks proposals with transformative ideas that represent an opportunity for a significant shift in fundamental engineering knowledge with a strong potential for long term impact on national needs or a grand challenge. The proposals must also meet the detailed requirements delineated in this solicitation. INFORMATION WEBCAST: The EFRI Office plans to hold an information workshop on September 5, 2008, to answer any questions about the EFRI Office and this solicitation. Details will be posted on the EFRI website (www.nsf.gov/eng/efri) as they become available.

TITLE: Research Opportunities in Space and Earth Sciences 2008
DEADLINE: May 9, 2008
LINK: <http://nspires.nasaprs.com/>

NNH08ZDA001N, entitled "Research Opportunities in Space and Earth Sciences - 2008 (ROSES-2008)," will be available on or about February 15, 2008, by opening the NASA Research Opportunities homepage at <http://nspires.nasaprs.com/> and then linking through the menu listings "Solicitations" to "Open Solicitations." This NASA Research Announcement (NRA) solicits proposals for supporting basic and applied research and technology across a broad range of Earth and space science program elements relevant to one or more of the following NASA Research Programs: Earth Science, Heliophysics, Planetary Science, and Astrophysics. This ROSES NRA covers all aspects of basic and applied supporting research and

technology in space and Earth sciences, including, but not limited to: theory, modeling, and analysis of SMD science data; aircraft, stratospheric balloon, and suborbital rocket investigations; development of experiment techniques suitable for future SMD space missions; development of concepts for future SMD space missions; development of advanced technologies relevant to SMD missions; development of techniques for and the laboratory analysis of both extraterrestrial samples returned by spacecraft, as well as terrestrial samples that support or otherwise help verify observations from SMD Earth system science missions; determination of atomic and composition parameters needed to analyze space data, as well as returned samples from the Earth or space; Earth surface observations and field campaigns that support SMD science missions; development of integrated Earth system models; development of systems for applying Earth science research data to societal needs; and development of applied information systems applicable to SMD objectives and data. Awards range from under \$100K per year for focused, limited efforts (e.g., data analysis) to more than \$1M per year for extensive activities (e.g., development of science experiment hardware). The funds available for awards in each program element offered in this NRA range from less than one to several million dollars, which allow selection from a few to as many as several dozen proposals depending on the program objectives and the submission of proposals of merit. Awards will be made as grants, cooperative agreements, contracts, and inter- or intra-agency transfers depending on the nature of the proposing organization and/or program requirements. The typical period of performance for an award is four years, although a few programs may specify shorter or longer periods. Participation is open to all categories of organizations, foreign and domestic, including educational institutions, industry, nonprofit organizations, NASA centers, the Jet Propulsion Laboratory, and other Government agencies, without restriction on number or teaming arrangements. Note that it is NASA policy that all investigations involving non-U.S. organizations will be conducted on the basis of no exchange of funds. Proposal due dates are scheduled starting on May 9, 2008, and continue through March 27, 2009. Electronically submitted Notices of Intent to propose are requested for most program elements, with the first such due date being March 14, 2008. Electronic submission of proposals is required by the respective due dates for each program element and must be submitted by an authorized official of the proposing organization. Electronic proposals may be submitted via the NASA proposal data system NSPIRES or via Grants.gov. Every organization that intends to submit a proposal in response to this NRA must be registered with NSPIRES; organizations that intend to submit proposals via Grants.gov must also be registered with Grants.gov. Such registration must identify the authorized organizational representative(s) who will submit the electronic proposal. All principal investigators and other participants (e.g. co-investigators) must be registered in NSPIRES. Potential proposers and proposing organizations are urged to access the system(s) well in advance of the proposal due date(s) of interest to familiarize themselves with its structure and enter the requested information. Further information about specific program elements may be obtained from the individual Program Officers listed in the Summary of Key Information for each program element in this NRA, while questions concerning general NRA policies and procedures may be directed to Dr. Yvonne Pendleton, Senior Advisor for Research and Analysis, Science Mission Directorate, NASA Headquarters, Washington, DC 20546-0001; E-mail: sara@nasa.gov; Telephone: 202-358-1182.

AGENCY: NASA

TITLE: ROSES 2008: Planetary Geology and Geophysics

DEADLINE: May 16, 2008

LINK:

<http://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId={7A237BC8-9809-BB78-9C86-BB33ACF962C9}&path=open>

NNH08ZDA001N, entitled "Research Opportunities in Space and Earth Sciences - 2008 (ROSES-2008)," will be available on or about February 15, 2008, by opening the NASA Research Opportunities homepage at <http://nspires.nasaprs.com/> and then linking through the menu listings "Solicitations" to "Open Solicitations." This NASA Research Announcement (NRA) solicits proposals for supporting basic and applied research and technology across a broad range of Earth and space science program elements relevant to one or more of the following NASA Research Programs: Earth Science, Heliophysics, Planetary Science, and Astrophysics. This ROSES NRA covers all aspects of basic and applied supporting research and technology in space and Earth sciences, including, but not limited to: theory, modeling, and analysis of

SMD science data; aircraft, stratospheric balloon, and suborbital rocket investigations; development of experiment techniques suitable for future SMD space missions; development of concepts for future SMD space missions; development of advanced technologies relevant to SMD missions; development of techniques for and the laboratory analysis of both extraterrestrial samples returned by spacecraft, as well as terrestrial samples that support or otherwise help verify observations from SMD Earth system science missions; determination of atomic and composition parameters needed to analyze space data, as well as returned samples from the Earth or space; Earth surface observations and field campaigns that support SMD science missions; development of integrated Earth system models; development of systems for applying Earth science research data to societal needs; and development of applied information systems applicable to SMD objectives and data. Awards range from under \$100K per year for focused, limited efforts (e.g., data analysis) to more than \$1M per year for extensive activities (e.g., development of science experiment hardware). The funds available for awards in each program element offered in this NRA range from less than one to several million dollars, which allow selection from a few to as many as several dozen proposals depending on the program objectives and the submission of proposals of merit. Awards will be made as grants, cooperative agreements, contracts, and inter- or intra-agency transfers depending on the nature of the proposing organization and/or program requirements. The typical period of performance for an award is four years, although a few programs may specify shorter or longer periods. Participation is open to all categories of organizations, foreign and domestic, including educational institutions, industry, nonprofit organizations, NASA centers, the Jet Propulsion Laboratory, and other Government agencies, without restriction on number or teaming arrangements. Note that it is NASA policy that all investigations involving non-U.S. organizations will be conducted on the basis of no exchange of funds. Proposal due dates are scheduled starting on May 9, 2008, and continue through March 27, 2009. Electronically submitted Notices of Intent to propose are requested for most program elements, with the first such due date being March 14, 2008. Electronic submission of proposals is required by the respective due dates for each program element and must be submitted by an authorized official of the proposing organization. Electronic proposals may be submitted via the NASA proposal data system NSPIRES or via Grants.gov. Every organization that intends to submit a proposal in response to this NRA must be registered with NSPIRES; organizations that intend to submit proposals via Grants.gov must also be registered with Grants.gov. Such registration must identify the authorized organizational representative(s) who will submit the electronic proposal. All principal investigators and other participants (e.g. co-investigators) must be registered in NSPIRES. Potential proposers and proposing organizations are urged to access the system(s) well in advance of the proposal due date(s) of interest to familiarize themselves with its structure and enter the requested information. Individual program elements under this solicitation may be found by using the Advanced Search method in Grants.gov (<http://www.grants.gov/search/advanced.do>). In the "Search by Funding Opportunity Number" box, enter the ROSES solicitation number of NNH08ZDA001N followed by an * (i.e., NNH08ZDA001N*). This will result in a list of all posted program elements. Use the funding number associated with the program element you wish to apply for to download the application package. Further information about specific program elements may be obtained from the individual Program Officers listed in the Summary of Key Information for each program element in this NRA, while questions concerning general NRA policies and procedures may be directed to Dr. Yvonne Pendleton, Senior Advisor for Research and Analysis, Science Mission Directorate, NASA Headquarters, Washington, DC 20546-0001; E-mail: sara@nasa.gov; Telephone: 202-358-1182.

AGENCY: NASA

TITLE: ROSES 2008: Fellowships for Early Career Researchers

DEADLINE: May 30, 2008

LINK:

<http://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId={7A237BC8-9809-BB78-9C86-BB33ACF962C9}&path=open>

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applied research and technology across a broad range of Earth and space science program elements relevant to one or more of the following NASA Research Programs: Earth Science, Heliophysics, Planetary Science, and Astrophysics. This ROSES NRA covers all aspects of basic and applied supporting research and technology in space and Earth sciences, including, but not limited to: theory, modeling, and analysis of SMD science data; aircraft, stratospheric balloon, and suborbital rocket investigations; development of experiment techniques suitable for future SMD space missions; development of concepts for future SMD space missions; development of advanced technologies relevant to SMD missions; development of techniques for and the laboratory analysis of both extraterrestrial samples returned by spacecraft, as well as terrestrial samples that support or otherwise help verify observations from SMD Earth system science missions; determination of atomic and composition parameters needed to analyze space data, as well as returned samples from the Earth or space; Earth surface observations and field campaigns that support SMD science missions; development of integrated Earth system models; development of systems for applying Earth science research data to societal needs; and development of applied information systems applicable to SMD objectives and data. Awards range from under \$100K per year for focused, limited efforts (e.g., data analysis) to more than \$1M per year for extensive activities (e.g., development of science experiment hardware). The funds available for awards in each program element offered in this NRA range from less than one to several million dollars, which allow selection from a few to as many as several dozen proposals depending on the program objectives and the submission of proposals of merit. Awards will be made as grants, cooperative agreements, contracts, and inter- or intra-agency transfers depending on the nature of the proposing organization and/or program requirements. The typical period of performance for an award is four years, although a few programs may specify shorter or longer periods. Participation is open to all categories of organizations, foreign and domestic, including educational institutions, industry, nonprofit organizations, NASA centers, the Jet Propulsion Laboratory, and other Government agencies, without restriction on number or teaming arrangements. Note that it is NASA policy that all investigations involving non-U.S. organizations will be conducted on the basis of no exchange of funds. Proposal due dates are scheduled starting on May 9, 2008, and continue through March 27, 2009. Electronically submitted Notices of Intent to propose are requested for most program elements, with the first such due date being March 14, 2008. Electronic submission of proposals is required by the respective due dates for each program element and must be submitted by an authorized official of the proposing organization. Electronic proposals may be submitted via the NASA proposal data system NSPIRES or via Grants.gov. Every organization that intends to submit a proposal in response to this NRA must be registered with NSPIRES; organizations that intend to submit proposals via Grants.gov must also be registered with Grants.gov. Such registration must identify the authorized organizational representative(s) who will submit the electronic proposal. All principal investigators and other participants (e.g. co-investigators) must be registered in NSPIRES. Potential proposers and proposing organizations are urged to access the system(s) well in advance of the proposal due date(s) of interest to familiarize themselves with its structure and enter the requested information. Individual program elements under this solicitation may be found by using the Advanced Search method in Grants.gov (<http://www.grants.gov/search/advanced.do>). In the "Search by Funding Opportunity Number" box, enter the ROSES solicitation number of NNH08ZDA001N followed by an * (i.e., NNH08ZDA001N*). This will result in a list of all posted program elements. Use the funding number associated with the program element you wish to apply for to download the application package. Further information about specific program elements may be obtained from the individual Program Officers listed in the Summary of Key Information for each program element in this NRA, while questions concerning general NRA policies and procedures may be directed to Dr. Yvonne Pendleton, Senior Advisor for Research and Analysis, Science Mission Directorate, NASA Headquarters, Washington, DC 20546-0001; E-mail: sara@nasa.gov; Telephone: 202-358-1182.

AGENCY: NASA
TITLE: ROSES 2008: Cassini Data Analysis
DEADLINE: May 30, 2008
LINK:

<http://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId={7A237BC8-9809-BB78-9C86-BB33ACF962C9}&path=open>

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AGENCY: NSF
TITLE: Research Experience for Undergraduates
DEADLINE: June 6, 2008
LINK: http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf07569

The Research Experiences for Undergraduates (REU) program supports active research participation by undergraduate students in any of the areas of research funded by the National Science Foundation. REU projects involve students in meaningful ways in ongoing research programs or in research projects specifically designed for the REU program. This solicitation features two mechanisms for support of student research: (1) REU Sites are based on independent proposals to initiate and conduct projects that engage a number of students in research. REU Sites may be based in a single discipline or academic department, or on interdisciplinary or multi-department research opportunities with a coherent intellectual theme. Proposals with an international dimension are welcome. A partnership with the Department of Defense supports REU Sites in DoD-relevant research areas. (2) REU Supplements may be requested for ongoing NSF-funded research projects or may be included as a component of proposals for new or renewal NSF grants or cooperative agreements. Undergraduate student participants in either Sites or Supplements must be citizens or permanent residents of the United States or its possessions. Students may not apply to NSF to participate in REU activities. Students apply directly to REU Sites and should consult the directory of active REU Sites on the Web at http://www.nsf.gov/crssprgm/reu/reu_search.cfm.

AGENCY: NASA

TITLE: ROSES 2008: Ocean Biology and Biogeochemistry

DEADLINE: June 2, 2008

LINK:

<http://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId={7A237BC8-9809-BB78-9C86-BB33ACF962C9}&path=open>

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AGENCY: NSF
TITLE: EAR Education and Human Resources
DEADLINE: No specified closing date
LINK: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13414

The Division of Earth Sciences' Education and Human Resources Program (EH) facilitates highly innovative educational activities in the earth sciences, including efforts to increase the diversity of participants and involve leading researchers in education. Activities at all levels are supported, including: 1) graduate and postdoctoral education outside the framework of normal NSF research grants; 2) undergraduate education, including the NSF-wide Research Experiences for Undergraduates Program; and 3) education activities at the K-12 level both inside and outside the classroom.

AGENCY: NSF
TITLE: Aeronomy
DEADLINE: No specified closing date
LINK: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=11686

The Aeronomy program supports research on upper and middle atmosphere phenomena of ionization, recombination, chemical reaction, photo emission, and transport; the transport of energy, and momentum. This program also supports research into mass in the mesosphere-thermosphere-ionosphere system including the processes involved and the coupling of this global system to the stratosphere below and magnetosphere above and the plasma physics of phenomena manifested in the coupled ionosphere-magnetosphere system, including the effects of high-power radio wave modification. About the Coupling, Energetics, and Dynamics of Atmospheric Regions (CEDAR) Program The CEDAR concept originated in the mideighties and was developed over several years through workshops, symposia, and committee deliberations by nearly 100 scientists involved in aeronomical studies. These activities led to a comprehensive report that provided a framework for developing upper atmospheric research in the United States through an evolutionary strategy of instrument development and deployment coordinated with campaign activities related to the global scale, coupled, near earth environment. The program has attracted a large number of graduate students and many international collaborators. Guidance is provided by a science steering committee appointed by the NSF Aeronomy and Upper Atmospheric Facilities program directors; scientific feedback to the community is provided by newsletters and an annual summer workshop. Three broad categories embrace the scientific goals of the CEDAR program: (1) dynamics and energetics of the upper atmosphere, with particular emphasis on the hard to observe region between 80 and 150 km; (2) coupling between the mesosphere, ionosphere, thermosphere, exosphere, and magnetosphere; and (3) horizontal coupling between adjacent geographic regions. CEDAR has provided the community with improved spectrometers, interferometers, and imagers; allowed upgrades of existing facilities; and supported the development of lidars and small radars. Several facilities have been established containing a broad array of state of the art tools to provide a solid infrastructure with which to attack outstanding

aeronomy problems well into the future. A report has recently been prepared that summarizes the results from the first five years of CEDAR funding.

AGENCY: NSF
TITLE: **Climate and Large-Scale Dynamics (CLD)**
DEADLINE: **No specified closing date**
LINK: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=11699

The goals of the Program are to: (i) advance knowledge about the processes that force and regulate the atmosphere's synoptic and planetary circulation, weather and climate, and (ii) sustain the pool of human resources required for excellence in synoptic and global atmospheric dynamics and climate research. Research topics include theoretical, observational and modeling studies of the general circulation of the stratosphere and troposphere; synoptic scale weather phenomena; processes that govern climate; the causes of climate variability and change; methods to predict climate variations; extended weather and climate predictability; development and testing of parameterization of physical processes; numerical methods for use in large-scale weather and climate models; the assembly and analysis of instrumental and/or modeled weather and climate data; data assimilation studies; development and use of climate models to diagnose and simulate climate and its variations and change.

AGENCY: NSF
TITLE: **Lower Atmospheric Observing Facilities**
DEADLINE: **No specified closing date**
LINK: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=12807

The National Science Foundation (NSF), Division of Atmospheric Sciences (ATM), Lower Atmospheric Observing Facilities (LAOF) Program consists of planning, budgeting, coordination, and oversight of multi-user national facilities that are sponsored by NSF for the geosciences research community. Program Management resides within ATM in the UCAR and Lower Atmospheric Facilities Oversight Section (ULAFOS) which provides a single point for coordination. Geosciences research often requires specialized facilities, instrumentation and field support services to carry out scientific field work that is needed to understand the complex, interdependent geophysical processes, often covering remote areas of the globe. Making platforms and instrumentation available to support scientific experiments depends upon adequate acquisition, operation, maintenance, upgrading and replacement of these facilities. Also these platforms and instruments may collect large and sometimes unique data sets that must be validated, archived and made available to the research community. Likewise both pre- and post-planning for scientific field programs (e.g., experimental design, operational plans, logistical support) in which NSF sponsored facilities are deployed is an important element of the overall program.

AGENCY: NSF
TITLE: **Paleoclimate**
DEADLINE: **No specified closing date**
LINK: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=12727

Supports research on the natural evolution of Earth's climate with the goal of providing a baseline for present variability and future trends through improved understanding of the physical, chemical, and biological processes that influence climate over the long-term. The annual Earth System History (ESH) competition in global change research provides support for research in several focussed areas of paleoclimate science. Proposals involving research topics within ESH are not eligible for support in the Paleoclimate Program. Researchers are strongly advised to contact the Director of the Paleoclimate Program for guidance as to the suitability of their proposed research for the Paleoclimate Program or the ESH competition.

AGENCY: NSF
TITLE: Physical Oceanography
DEADLINE: No specified closing date
LINK: <http://www.grants.gov/search/search.do?mode=VIEW&oppId=10665>

The Physical Oceanography Program supports research on a wide range of topics associated with the structure and movement of the ocean, with the way in which it transports various quantities, with the way the ocean's physical structure interacts with the biological and chemical processes within it, and with interactions between the ocean and the atmosphere, solid earth and ice that surround it.

AGENCY: NSF
TITLE: Oceanographic Centers and Facilities
DEADLINE: No specified closing date
LINK: <http://www.grants.gov/search/search.do?mode=VIEW&oppId=10652>

NSF supports construction, conversion, acquisition, and operation of major shared-use oceanographic facilities. The University-National Oceanographic Laboratory System (UNOLS) schedules these facilities and expeditionary programs. This program supports expensive facilities that are necessary for NSF-funded research and training of oceanographers. Examples of these facilities are ships, submersibles, large shipboard equipment, and shared-use instruments to collect and analyze data. NSF encourages local contributions from nonfederal funds; however, there is no fixed requirement for institutional contributions.

AGENCY: NSF
TITLE: Ocean Technology and Interdisciplinary Coordination
DEADLINE: No specified closing date
LINK: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=12724

The Oceanographic Technology and Interdisciplinary Coordination (OTIC) Program supports a broad range of research and technology development activities. Unsolicited proposals are accepted for instrumentation development that has broad applicability to ocean science research projects and that enhance observational, experimental or analytical capabilities of the ocean science research community. Specific announcements for funding opportunities are made for additional projects involving Coastal Ocean Processes, FSML: Improvements in Facilities, Communications, and Equipment at Biological Field Stations and Marine Laboratories and the National Ocean Partnership Program.

AGENCY: NSF
TITLE: Atmospheric Chemistry
DEADLINE: No specified closing date
LINK: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=11692

Supports research to measure and model the concentration and distribution of gases and aerosols in the lower and middle atmosphere. Also supports research on the chemical reactions among atmospheric species; the sources and sinks of important trace gases and aerosols; the aqueous-phase atmospheric chemistry; the transport of gases and aerosols throughout the atmosphere; and the improved methods for measuring the concentrations of trace species and their fluxes into and out of the atmosphere.

AGENCY: U. S. Department of Energy
TITLE: Research Interest (BAA 2006-1)

DEADLINE: Anytime

LINK: <http://www.afosr.af.mil/oppts/afprop.htm>

The Air Force Office of Scientific Research (AFOSR) manages the entire basic research investment of the US Air Force (USAF). As a part of the Air Force Research Laboratory (AFRL), AFOSR's technical experts foster support and fund research within the Air Force Research Laboratory, universities, and industry laboratories to ensure the transition of research results to support USAF needs.

AFOSR's focus is on research areas that offer significant and comprehensive benefits to our national warfighting and peacekeeping capabilities. These areas are organized and managed as summarized below:

Aerospace and Materials Sciences (Structural Mechanics; Mechanics of Materials and Devices; Unsteady Aerodynamics and Hypersonics; Turbulence and Rotating Flows; Combustion and Diagnostics; Space Power and Propulsion, Metallic Materials; Ceramic and Nonmetallic Materials; Organic Matrix Composites)

Physics and Electronics (ElectroEnergetic Physics; Electromagnetic Disruption / Detection Physics; Space Electronics, University NanoSatellites; Atomic and Molecular Physics; Remote Sensing and Imaging; Optoelectronics: Components and Information Processing; Laser and Optical Physics; Quantum Electronic Solids; Semiconductor Materials; Sensors in the Space Environment; High Density Optical Memory; Space Sciences)

Chemistry and Life Sciences (Polymer Chemistry; Surface and Interfacial Science; Biophysical Mechanisms; Theoretical Chemistry; Molecular Dynamics; Chronobiology; Biomimetics, Biomaterials, and Biointerfacial Sciences, Cognition and Decision; Sensory Systems; Biological Response Profiling and Assessment)

Mathematics and Information Sciences (Dynamics and Control; Physical Mathematics and Applied Analysis; Computational Mathematics; Information Forensics and Process Integration for Networked Operations; Optimization and Discrete Mathematics; Signals Communication and Surveillance; Software and Systems; Information Fusion and Artificial Intelligence; Electromagnetics)

AFOSR primary contacts' names, telephone numbers, mailing addresses, and e-mail addresses are provided at the end of each research interest, external program description, and special program description. Anyone qualified to perform research is encouraged to contact AFOSR in accordance with the appropriate BAA point of contact and the guidelines given in this document.

Program: Mechanics & Energy Conversion Science & Technology Research

Agency: Office of Naval Research

Deadline: Anytime

URL:

http://www.onr.navy.mil/sci_tech/engineering/333_mechanics/http://www.onr.navy.mil/sci_tech/engineering/333_mechanics/

The Mechanics and Energy Conversion Sciences and Technology Division plans, fosters, and encourages scientific research and technology development in the areas of Energy Conversion, Hydromechanics, and Undersea Weaponry. Program Officers in the Mechanics and Energy Conversion Sciences and Technology Division have diverse backgrounds in fields of chemistry, physics, materials science, and naval weaponry to bring a unique perspective to each programmatic area.

The current programmatic areas focus basic and exploratory development on areas which will have broad impact on future Naval Forces.

Individuals seeking support are encouraged to provide a strong S&T proposal that clearly outlines a vision for a future technology of benefit to the Navy and Marine Corps while putting forward strong scientific concepts that will form the basis of this technology.

ONR is, generally speaking, looking for high risk, high pay-off approaches that could potentially offer order of magnitude increases in a specific capability/metri

AGENCY: NOAA/NOS/NCCOS/CSOR
TITLE: Great Lakes and Mid-Atlantic Programs
DEADLINE: Anytime
LINK: <http://www.grants.gov/search/search.do?oppId=14667&mode=VIEW>

NOAA/NOS/NCCOS/CSOR is soliciting proposals for three separate regional ecosystem prediction projects on (1) Invasive Species in the Great Lakes, (2) Cumulative Impacts of Stressors at the Land-Water Interface in the Mid-Atlantic, and (3) Ecosystem Goal-Setting in Coastal Waters and Reefs of South Florida.

For the Great Lakes and Mid-Atlantic programs, projects will be of up to 5 years in duration. In the Great Lakes, proposals are requested for a regional-scale ecosystem research study investigating recent and future changes in water quality, habitats and populations of living resources in the context of invasive species. For the Mid-Atlantic region, proposals are requested for a regional-scale ecosystem research study investigating the cumulative impacts of multiple stressors at the land- water interface of estuaries and bays on recreationally, economically or ecologically important living resource populations and communities. Proposals for these two programs should be regional in scale, interdisciplinary, comprehensive, integrated, and multiple investigator to develop capabilities for innovative forecasts and predictions for improved management and control capabilities. For the South Florida program, proposals will be 2-3 years in duration.

In the South Florida program, proposals are solicited to develop, undertake and conclude a consensus-building process that results in scientifically-based quantifiable goals for aquatic resources and habitats of the Florida Bay and Keys. Proposals should include a diverse and comprehensive team of managers, scientists and NGOs and be regional in scope.

Funds for the Invasive Species in the Great Lakes--A Regional Scale Approach and for the Cumulative Impacts of Stressors at the Land-Water Interface in the Mid-Atlantic programs typically will not exceed \$500,000-\$1,000,000 per project per year, exclusive of ship costs. It is anticipated that 1-3 projects will be awarded for each of these two programs with project duration of 3 to 5 years. The Ecosystem Goal-Setting in Coastal Waters and Reefs of South Florida program is expected to have a project duration of 2 to 3 years with funds not to exceed \$500,000 per project per year. It is anticipated that 1 project will be awarded for this program. Support in out years after FY 2008 is contingent upon the availability of funds.

A National Aeronautics and Space Administration (NASA) Research Announcement (NRA), entitled, "Research and Technology Development to Support Crew Health and Performance in Space Exploration Missions" (NASANNJ07ZSA002N), has been released and is available through the NASA Research Opportunities homepage at <http://nspires.nasaprs.com/> and then linking through the menu listings "Solicitations" to "Open Solicitations."

This NRA jointly solicits ground-based, bed rest definition and flight definition proposals for the NASA Human Research Program (HRP) and the National Space Biomedical Research Institute (NSBRI). Proposals are solicited by the HRP in the areas of Bone, Cardiovascular, Muscle, Nutrition, and Lunar Analog Bed Rest Investigations. Proposals are solicited by the NSBRI in the areas of Bone Loss; Cardiovascular Alterations; Human Performance Factors, Sleep and Chronobiology; Muscle Alterations and Atrophy; Neurobehavioral and Psychosocial Factors; Nutrition, Physical Fitness and Rehabilitation; Sensorimotor Adaptation; Smart Medical Systems; and Technology Development. Proposals responding to the HRP emphases and NSBRI emphases must be submitted separately, and will result in separate evaluations and awards. Step-1 proposals are due on September 14, 2007, and invited Step-2 proposals are due on December 14, 2007. Participation is open to all categories of organizations, including educational institutions, industry, nonprofit organizations, NASA centers, and other Government agencies.

Participation is open to all categories of organizations, including educational institutions, industry, nonprofit organizations, NASA centers, and other Government agencies. Electronic proposals to HRP may

be submitted via the NASA Proposal data system NSPIRES or via Grants.gov. (www.grants.gov)
Electronic proposals to NSBRI must be submitted via NSPIRES.

Proposals solicited through this NRA will use a two-step proposal process. Only Step-1 proposers determined to be relevant with respect to the solicited research of this NRA will be invited to submit full Step-2 proposals. Proposals must be submitted electronically.

This email is being sent on behalf of and is intended as an information announcement to researchers associated with the NASA Exploration Systems Mission Directorate (ESMD) Human Research Program (HRP).

Thank you for your continued interest in NASA and NSBRI. Replies to this email will go unanswered, please reference the above solicitation for contact information.
NASA's Office of Education, in cooperation with the NASA Johnson Space Center is requesting proposals for a NASA Cooperative Agreement Notice, Undergraduate Student Research Program (USRP). It has been released and is available through the NASA Research Opportunities homepage at <http://nspires.nasaprs.com/> and then linking through the menu listings "Solicitations" to "Open Solicitations."

Organizations eligible to respond to this CAN are limited to higher education institutions and non-profit organizations serving higher education students. Partnerships among these institutions and/or organizations are encouraged to apply.

The NASA USRP is one of NASA's workforce development projects for undergraduate students. It will incorporate science, technology, engineering, and mathematics (STEM) activities of each of NASA's field centers and the Jet Propulsion Laboratory (JPL). Undergraduate students selected for this program will undertake research internships at NASA field centers under the tutelage of NASA scientists and engineers.

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