

**DEPARTMENT OF COMMERCE****National Oceanic and Atmospheric Administration**

[Docket No.: 991215340-9340-01]

RIN 0648-ZA76

**Collaborative Science, Technology, and Applied Research (CSTAR) Program**

**AGENCY:** National Weather Service (NWS), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce (DOC).

**ACTION:** Notice and request for proposals.

**SUMMARY:** The CSTAR Program represents an NOAA/NWS effort to create a cost-effective continuum from basic and applied research to operations through collaborative research between operational forecasters and academic institutions which have expertise in the environmental sciences. These activities improve the accuracy of forecasts and warnings of environmental hazards by applying scientific knowledge and information from the modernization of the NWS. The NOAA CSTAR Program is a contributing element of the U.S. Weather Research Program, which is coordinated by the interagency Committee on Environmental and Natural Resources. NOAA's program is designed to complement other agency contributions to that national effort.

Pursuant to Executive Orders 12876, 12900, and 13021, DOC/NOAA is strongly committed to broadening the participation of Historically Black Colleges and Universities, Hispanic Serving Institutions, and Tribal Colleges and Universities in its educational and research programs. The DOC/NOAA vision, mission, and goals are to achieve full participation by Minority Serving Institutions (MSI) in order to advance the development of human potential, to strengthen the Nation's capacity to provide high-quality education, and to increase opportunities for MSIs to participate in and benefit from Federal Financial Assistance programs. DOC/NOAA encourages all applicants to include meaningful participation of MSIs.

This program is designated under Catalog for Federal Assistance number 11.468, Applied Meteorological Research.

**DATES:** Proposals must be received by the NWS no later than close of business April 14, 2000. We anticipate review of full proposals will occur during May 2000, and funding should begin during later summer 2000 for most approved

projects. August 1, 2000, should be used as the proposed start date on proposals, unless otherwise directed by the appropriate Program Officer. Applicants should be notified of their status within 3 months of the closing date. All proposals must be submitted in accordance with the guidelines below. Failure to follow these guidelines will result in proposals being returned to the submitter.

**ADDRESSES:** Proposals must be submitted to NWS, NOAA; 1325 East-West Highway, Room 13316; Silver Spring, Maryland 20910-3283.

**FOR FURTHER INFORMATION CONTACT:** Sam Contorno (see **ADDRESSES**), or by phone at 301-713-1970 ext. 193, or fax to 301-713-1520, or on Internet at samuel.contorno@noaa.gov.

**SUPPLEMENTARY INFORMATION:****Funding Availability**

NOAA/NWS believes its warning and forecast mission will benefit significantly from a strong partnership with outside investigators. Current program plans assume the total resources provided through this announcement will support extramural efforts through the broad academic community. Because of Federal budget uncertainties, it has not been determined how much money will be available through this announcement. Proposals should be prepared assuming an annual budget of no more than \$125,000. It is expected between two and five awards will be made depending on availability of funds. This program announcement is for projects to be conducted by university investigators for a 1-year, 2-year, or 3-year period. When a proposal for a multi-year award is approved, funding will initially be provided for only the first year of the program. If an application is selected for initial funding, the NWS has no obligation to provide additional funding in connection with that award in subsequent years. Funding for each subsequent year of a multi-year proposal is at the discretion of the NWS. It will be contingent upon satisfactory progress in relation to the stated goals of the proposal to address specific science needs and priorities of the NWS and the availability of funds. Applications must include a scope of work and a budget for the entire award period. Each funding period must be discrete and clearly distinguished from any other funding period.

The funding instrument for extramural awards will be a cooperative agreement since one or more NOAA/NWS components—forecast offices, National Centers for Environmental

Prediction (NCEP) service centers, or regional headquarters—will be substantially involved in implementation of the project. Examples of substantial involvement may include, but are not limited to, proposals for collaboration between NOAA scientists and a recipient scientist and/or contemplation by NOAA or detailing Federal personnel to work on proposed projects. Funding for non-U.S. institutions and contractual arrangements for services and products for delivery to NOAA are not available under this announcement. A matching share is not required by this program.

**Program Objectives**

The long term objective of the CSTAR Program is to improve the overall forecast and warning capabilities of the operational hydrometeorological community by addressing the following national science priorities through collaborative efforts between the NWS and academic institutions: Quantitative precipitation estimation (QPE) and forecasting (QPF), including precipitation type and probabilistic QPF; Flash flood and probabilistic river prediction; Prediction of seasonal-to-interannual and decadal climate variability, and the impacts of these variabilities on extreme weather events; Prediction of tropical cyclones near landfall, including track, intensity, and associated precipitation, and hazardous weather; Prediction of marine conditions, including fog, winds, coastal ocean, and open-ocean waves; The effect of topography and other surface forcing on local weather regimes; Locally hazardous weather, especially severe convection, winter weather, and phenomena that affect aviation; and Conditions conducive for the rapid development of wildfires and the dispersion of smoke and other air-quality hazards.

Individual NWS Regions and NCEP service centers have a subset of these science priorities due to differences in factors such as topography, weather regimes, and mission.

**Program Priorities**

NOAA will give sole attention to individual proposals addressing the identified science needs/priorities from NWS Regions and NCEP service centers as listed below. It is anticipated one proposal will be funded addressing one or more of the science needs/priorities of both the NWS Southern and Western Regions. Although there is no guarantee funding will be available, a proposal may be considered for funding separately as an "at large" award if it:

(1) Addresses Western or Southern Region science needs/priorities and is not selected for funding in its respective category, or

(2) Addresses one or more of the science needs/priorities from other NWS Regions or NCEP service centers. Therefore, universities are also encouraged to submit proposals addressing any of the science needs/priorities from other NWS Regions and NCEP service centers. Proposals must clearly specify which primary science priorities/needs are being addressed. Although a proposal may address science needs/priorities from more than one NWS Region or NCEP service center, a proposal can be considered only for funding in a single category which must be designated by the Principal Investigators (PI) (i.e., Southern Region, Western Region, or at large).

Since a goal of this call for proposals is to foster long-term collaborative interactions between a university and NWS operational offices/NCEP service centers, all PIs within this program must be a full, assistant, or associate college or university professor with substantial documented involvement in the proposal. Proposals should clearly state the role of each PI in the project.

A proposal must be submitted by at least two PIs from the same college or university. Multiple university proposals are not allowed. Except for researchers who are associate, assistant, or full professors at the Naval Postgraduate School or other federally funded educational institutions, Federal Government employees are not allowed to be listed as PIs, although collaboration between the academic community and NOAA within the project is strongly encouraged. A proposal must contain at least two distinct subtasks addressing one or more of the science needs/priorities listed by a single NWS Region or NCEP service center. PIs must clearly address the science and technology transfer process contained within the proposal. This includes their interactions with operational NWS units, including weather offices, River Forecast Centers, NCEP service centers, and regional offices, with the specific goal of improving operational services.

The names, affiliations, and phone numbers of relevant NWS regional/NCEP focal points are provided. Prospective applicants should communicate with these focal points for information on priorities within regional science needs. Applicants should send proposals to the NOAA/NWS program office identified earlier rather than to individual focal points.

#### *NWS Eastern Region Science Needs/Priorities*

NWS Eastern Region has listed the following science needs/priorities to be addressed by proposals:

Unique geomorphic influences on weather problems such as the type, amount, duration, and intensity of precipitation associated with the complex terrain of the Appalachian Mountains or the formation, duration, and intensity of severe storms and winter weather phenomena along the Atlantic Seaboard and the Great Lakes.

The relationship of land-falling tropical storms and hurricanes to severe weather, heavy precipitation, flooding, and flash flooding throughout the eastern United States. The development and enhancement of severe storms throughout the Middle Atlantic and the Piedmont regions due to the influence of small-scale thermal and moisture boundaries. The interaction of gravity waves and related phenomena with severe storms and winter weather systems throughout the East.

The primary factors causing high winds, waves, and flooding near the Atlantic Coast, Chesapeake Bay, and Great Lakes. Widespread river and localized flash flooding produced by synoptic and sub-synoptic scale weather systems interacting with the complex topography and expanding urbanization of the eastern United States.

Innovative approaches to formulate, produce, display, and deliver high-resolution hydrometeorological forecasts and products to meet the evolving needs of the user community throughout the heavily populated eastern United States.

*For Further Information Contact:* Gary Carter, NOAA/NWS/Eastern Region Scientific Services Division, 516-524-5131, or on the Internet at gary.carter@noaa.gov.

#### *NWS Southern Region Science Needs/Priorities*

The NWS Southern Region science needs/priorities to be addressed by proposals are as follows:

Development of improved techniques for the prediction of freezing and frozen precipitation events in the NWS Southern Region including timing, areal extent, intensity, and amount.

Development of diurnal lightning and cloud climatologies stratified by weather regime to better predict the onset, spatial coverage, and duration of precipitation, especially under weak synoptic forcing.

Development of improved techniques to forecast and monitor heavy-rain events.

Development of relationships between land falling tropical cyclones and associated severe weather, heavy precipitation, flooding, and flash flooding throughout the southern United States.

Development of improved techniques to observe and forecast winds and waves in the coastal environment.

Improved understanding of the unique geomorphic influences on weather problems such as type, amount, duration, and intensity of precipitation and resultant flash flooding associated with the complex terrain of the southern Appalachian Mountains, the Mexican Plateau, and the Gulf Coast.

Development of optimal strategies for using mesoscale models to accurately predict the effects of topography and other surface forcing on local weather.

Development of methodologies to better predict the development and duration of stratus, fog, and other conditions which produce instrument flight rule conditions in the NWS Southern Region.

Development of methodologies to use the Doppler weather surveillance radar (WSR-88D) and multi-sensor technology to detect/identify storm features leading to, and/or associated with, the development of weak (F0 and F1) tornadoes characteristic of semi-tropical environments.

Development of optimal WSR-88D scan strategies and adaptable parameter settings for accurately estimating heavy precipitation amounts.

Development of methodologies to better predict the type, duration, and severity of arctic outbreaks that result in damaging freezes affecting the NWS Southern Region.

*For Further Information Contact:* Dan Smith, NOAA/NWS/Southern Region Scientific Services Division, 817-978-2671, or on the Internet at dan.smith@noaa.gov.

#### *NWS Central Region Science Needs/Priorities*

The NWS Central Region science needs/priorities to be addressed by proposals are as follows:

Improve hazardous weather warnings for different geographical locations in Central Region, including the Central Plains, Northern Plains, Ozark Plateau, mid and upper Mississippi Valley, lower Ohio Valley and Great Lakes regions by:

Developing more accurate, region-specific conceptual models for tornado, hail, high wind, heavy precipitation, and elevated nocturnal convection events.

Developing more accurate, region-specific diagnostic strategies/

methodologies to interrogate remotely sensed data (radar, satellite, etc.) and numerical weather guidance with emphasis on weaker and shorter lived severe thunderstorm and tornado events.

Improve Central Region winter weather precipitation forecasts by:

Developing a climatology of winter precipitation events including, but not limited to, heavy snow, sleet or freezing rain stratified by Central Region County Warning Forecast Areas and relating it to public products and services.

Linking cloud physics and associated micro-physical processes, precipitation efficiency, water vapor distribution, and transport of winter stratiform and/or convective clouds to improved methodologies for estimating or forecasting winter precipitation amounts.

Improve the accuracy (probability of detection) and average forecast lead time for winter storm warnings by better understanding the development, intensification, and sudden acceleration northeastward of strong mid-west storm systems following Rocky Mountain lee-side cyclogenesis.

Improve aviation forecast products and services by:

Developing a climatology of ceiling, visibility, and low-level wind shear for Central Region county warning forecast areas.

Developing better methodologies to forecast the onset and dissipation of fog and low ceilings for different geographical locations in the Central Region.

Improve the utility and utilization of numerical guidance in the forecast process by developing more efficient and effective methodologies to display, review, and interrogate numerical model output in an operational environment.

Improve the quality of weather services to the public through the development of new and innovative forecast methodologies and products.

*For Further Information Contact:* Richard Livingston, NOAA/NWS/Central Region Scientific Services Division, 816-426-5672 ext. 300, or on the Internet at [Richard.Livingston@noaa.gov](mailto:Richard.Livingston@noaa.gov).

#### *NWS Western Region Science Needs/Priorities*

The NWS Western Region science goals are as follows: Improve operational precipitation and hydrological forecasts in complex terrain across a wide range of western U.S. meteorological regimes. In the West, water is a critical and closely managed resource.

Improve wintertime forecasts of snow in complex terrain and improve hydrological modeling of snow melt processes in complex terrain.

Improve precipitation and flash flooding forecasts produced from high based convection with a deep dry sub cloud layer in the arid inter-mountain region.

Improve forecast of significant precipitation events that produce flooding along the west coast.

Improve forecast of the onset of the monsoon season and flash flooding in the desert Southwest.

Improve snow and wind forecast associated with arctic front intrusion into complex terrain in the northern plains.

Improve operational forecasts through better capturing the effect of complex terrain and coastal marine environment over the western United States.

Improve use of observational networks, such as mesonets.

Improve analysis through better assimilation systems that produce more realistic analysis in complex terrain.

Improve numerical model performance in western complex terrain.

Conceptual models that better describe the effect of complex terrain on weather forecasts.

Develop innovative approaches to produce and deliver high resolution hydrometeorological forecasts and products to meet the evolving user community needs throughout the western United States.

Improve fire-weather forecasts and smoke dispersion in the western United States.

Improve forecasters ability to produce forecasts of temperature, humidity, and winds in complex terrain.

Improve forecast and warnings of severe weather unique to the western United States through the better use of observational systems and conceptual models.

Improve the performance of coastal and mountain-top WSR-88D radars on a variety of NWS Western Region weather regimes, such as high based inter-mountain convection and low topped storms along the west coast.

*For Further Information Contact:* Andy Edman, NOAA/NWS/Western Region Scientific Services Division, 801-524-5131, or on the Internet at [andy.edman@noaa.gov](mailto:andy.edman@noaa.gov).

#### *NWS Alaska Region Science Needs/Priorities*

The science needs/priorities of the NWS Alaska Region are as follows:

Improve the accuracy (probability of detection) and lead time for airborne

volcanic ash detection and tracking by better understanding source conditions and early developments of the ash cloud. Improvements must include remote sensing techniques.

Innovative approaches to remote sensing that result in the formulation and production of high resolution hydrometeorological forecasts of river and localized flash flooding produced by synoptic and mesoscale weather systems interacting with complex terrain in south-central Alaska. Emphasis should be placed on the Kenai River watershed.

Develop better methodologies to forecast winds over the marine inland waters of southeast Alaska. Methodologies can include numerical forecasts from mesoscale models.

Determine the geomorphic influences on type, amount, duration, and intensity of snow associated with complex terrain to improve forecasts for the Anchorage, Alaska, area, where over 50 percent of the state population resides.

Improve methodologies to forecast fog in the Alaska coastal communities located along the coast of the Gulf of Alaska.

Improve the winter season WSR-88D-based rain and snow QPEs. All six sites are influenced by complex topography.

*For Further Information Contact:* Gary Hufford, NOAA/NWS/Alaska Region Environmental and Scientific Services Division, 907-271-3886, or on the Internet at [gary.hufford@noaa.gov](mailto:gary.hufford@noaa.gov).

#### *NWS Pacific Region Science Needs/Priorities*

The science needs/priorities of the NWS Pacific Region are as follows:

Optimize the utility of new and existing observing systems, with emphasis on satellites and their use in providing precipitation estimations.

Develop, optimize, and utilize local high-resolution modeling capabilities aimed at providing operational real-time guidance as well as a tool for locally conducted research.

Conduct Pacific Basin synoptic climatological studies, with emphasis on flash-flood and high-wind events.

*For Further Information Contact:* Mark Jackson, NOAA/NWS/Pacific Region Regional Scientist, 808-532-6413, or on the Internet at [mark.jackson@noaa.gov](mailto:mark.jackson@noaa.gov).

#### *NWS National Centers for Environmental Prediction Science Needs/Priorities*

NCEP service centers have established the following science needs/priorities which may be addressed in proposals:

**Aviation Weather Center**

Develop numerical and subjective techniques to improve the accuracy of convective forecasts in the 2–6 hour time scale.

Improve the treatment of drizzle-size droplets in clouds that lead to aircraft icing through improved parameterization and/or explicit micro physics techniques that are both economical and support cloud initialization using existing observational data sets, including the Automated Surface Observing System, radar, and satellite data.

Enhance understanding of the triggering mechanisms associated with different families of clear-air turbulence events, including gravity waves emanating from convective systems, gravity waves induced by jet streaks, cross mountain flow, critical boundary-layer flow regimes, etc.

**Climate Prediction Center**

Develop dynamically and ensemble-based techniques to improve the prediction of weekly, monthly, and seasonal precipitation skill, including regional climate prediction systems.

Improve global and domestic forecasts of seasonal climate variability through better understanding and modeling of the coupled atmosphere/ocean system and the effect of variations on that coupling to ensemble prediction.

**Hydrometeorological Prediction Center (HPC)**

Efforts addressing the broad geographical and seasonal ranges of problems associated with QPF, from initiation, duration, movement, to winter weather type. This includes the spectrum from drizzle to heavy rain and from flurries through lake-effect snow to synoptic-scale snowfall.

Develop new model verification techniques to enhance current methods of objectively assessing which models will perform best. The techniques should apply for all time ranges used by HPC, from less than 6 hours to 7 days.

Develop techniques to modify gridded numerical guidance to produce gridded forecast products, which are made horizontally, vertically, and temporally consistent using sound meteorological theory.

**Marine Prediction Center (MPC)**

Develop a robust marine verification system that utilizes the various observations from both in-situ and remote sources. Parameters to be verified include, but are not limited to: wind speed and direction; sea-state (height, period, direction); visibility; weather; and icing conditions.

Improve forecasting techniques for warnings and forecasts of hazardous marine conditions through the use of additional data sources (especially in-situ), as well as improved use of all marine data sources in numerical weather prediction and model data assimilation techniques.

**Storm Prediction Center**

Develop mesoscale or storm-scale numerical prediction models, ensemble approaches, and verification techniques to improve forecasts of the location, timing, intensity, and mode of deep moist convection.

Develop three-dimensional mesoscale analysis techniques, observing systems, expert systems or statistical guidance, robust conceptual models, and scientific understanding to improve forecasts of the location, timing, intensity, and mode of deep moist convection.

**Tropical Prediction Center (TPC)**

Improve hurricane intensity forecasting using either empirical or dynamical forecasting techniques, especially those that combine atmospheric/oceanic interactions and which can be incorporated with existing TPC intensity guidance.

Improve forecasts for the size of tropical storms, including verification of TPC's (and the Geophysical Fluid Dynamic Laboratory's) wind radii forecasts. A goal of this effort will be the generation of probabilistic guidance by MPC and TPC on 34 and 50 kt forecast wind radii for marine and emergency management interests.

Development an "all-platform" surface wind display and analysis over marine areas for use by TPC and MPC that would cover the larger scale tropical storm environment and that would superimpose QuickScat, SSM/I, ERS, low-level cloud-drift winds, and conventional observations, including buoys and ships, etc.

**Note:** In all instances, projects are encouraged which not only address the needs of individual NCEP service centers but also address aspects of the NCEP/Environmental Modeling Center's need for improving data assimilation and numerical modeling of the atmosphere, oceans, and Earth's surface.

*For Further Information Contact:*  
Ralph Petersen, NOAA/NWS/National Centers for Environmental Prediction, 301–763–8000 ext. 7008, or on the Internet at ralph.petersen@noaa.gov.

**Eligibility**

All accredited U.S. colleges and universities, including federally funded educational institutions such as the Naval Postgraduate School, are eligible

for funding under this announcement. The restriction is needed because the results of the collaboration are to be incorporated in academic processes which ensure academic multidisciplinary peer review as well as Federal review of scientific validity for use in operations. Funding for non-U.S. institutions is not available under this announcement.

**Evaluation Criteria**

The evaluation criteria and weighting of the criteria are as follows:

(1) Operational Applicability (30 percent): What is the likelihood of the proposed science activities to improve operation hydrometeorological services? Are proposed research activities transferable to forecast operations in a reasonable time frame?

(2) Scientific Merit (25 percent): What is the intrinsic scientific value and maturity of the subject and the study proposed as they relate to the specific science priorities?

(3) Technology Transfer and Methodology (25 percent): What is the degree of collaboration with multiple operational units throughout the project? What is the level of planning by research to integrate results into operations successfully and efficiently? Were focused scientific objectives and strategies, including data management considerations, project milestones, and timeliness, used?

(4) Capability of researchers (10 percent): Do PIs clearly document past scientific collaborations with operational meteorologists? Have past interactions been successful? Are researchers likely to maintain effective and consistent interactions with operational forecasts throughout the course of the proposed research program? Have researchers demonstrated the ability to conduct successful research?

(5) Cost Effectiveness (10 percent): Do researchers demonstrate the ability to leverage other resources? Is there a high ratio of operationally useful results versus proposed costs?

**Selection Procedures**

All proposals will be evaluated and individually ranked in accordance with the assigned weights of the above evaluation criteria by an independent peer panel review. Three to seven NWS experts representing NWS Regions and Centers and non-Federal experts may be used in this process. Their recommendations and evaluations will be considered, along with the program policy factors discussed below, by the selecting official who will select the proposals to be funded and determine

the amount of funds available for each proposal. Unsatisfactory performance by a recipient under prior Federal awards may result in an application not being considered for funding. Because the selecting official will take into account program policy factors, awards may not necessarily be made to the highest scored proposals.

#### Program Policy Factors

In deciding which applications are to be funded, the Selecting Official will choose at least one award which addresses Southern Region science needs and at least one award which addresses Western Region science needs. Further, the selecting official may take into account the need to spread awards geographically and among universities. While a university may submit more than one application, the selecting official may limit the awards to only one per university. Finally, the amount of funds available and whether an application substantially duplicates other projects currently approved for funding or funded by NOAA or other Federal agencies may be considered by the Selecting Official.

#### Proposal Submission

Proposals must adhere to the five provisions under "Proposals" and the seven requirements under "Required Elements" by the deadline of April 14, 2000. Failure to follow these restrictions will result in proposals being returned to the submitter without review. In addition, applicants should note those provisions under "Other Requirements/Information" that must be complied with before an award can be made.

#### Proposals

(1) Proposals submitted to the NOAA NWS CSTAR Program must include the original and two unbound copies of the proposal.

(2) Investigators are not required to submit more than three copies of the proposal. Investigators are encouraged to submit sufficient proposal copies for the full review process if they wish all reviewers to receive color, unusually sized (not 8.5x11), or otherwise unusual materials submitted as part of the proposal. Only an original version of the federally required forms and two copies are needed.

(3) Proposals should be no more than 30 pages (numbered) in length, including budget, investigators vitae, and all appendices and should be limited to funding requests for 1- to 3-year duration. Appended information should be counted within the 30-page

total. Federally mandated forms are not included within the page count.

(4) Proposals should be sent to the NWS (see **ADDRESSES**).

(5) Facsimile transmissions and electronic mail submission of full proposals will not be accepted.

#### Required Elements

All proposals should include the following elements:

(1) Signed title page. The title page should be signed by the PIs and the institutional representative and should clearly indicate which project area is being addressed. The PIs and institutional representative should be identified by full name, title, organization, telephone number, and address. The total amount of Federal funds being requested should be listed for each budget period.

(2) Abstract. An abstract must be included and should contain an introduction of the problem, rationale, and a brief summary of work to be completed. The abstract should appear on a separate page, headed with the proposal title, institution's investigators, total proposed cost, and budget period.

(3) Results from prior research. The results of related projects supported by NOAA and other agencies should be described, including their relation to the currently proposed work. Reference to each prior research award should include the title, agency, award number, PIs, period of award, and total award. The section should be a brief summary and should not exceed two pages total.

(4) Statement of work. The proposed project must be completely described, including identification of the problem; scientific objectives; proposed methodology; relevance to the priorities of the NWS Region or NCEP service center; operational applicability; scientific merit; proposed technology transfer; past collaborations with operational hydrometeorologists; cost effectiveness of research; and the program priorities listed above. Benefits of the proposed project to the general public and the scientific community should be discussed. A year-by-year summary of proposed work must be included. The statement of work, including references but excluding figures and other visual materials, must not exceed 15 pages of text. In general, proposals from three or more investigators may include a statement of work containing up to 15 pages of overall project description plus up to 5 additional pages for individual project descriptions.

(5) Budget. Applicants must submit a Standard Form 424 "Application for

Federal Assistance," including a detailed budget using the Standard Form 424a, "Budget Information—Non-Construction Programs." The form is included in the standard NOAA application kit. The proposal must include total and annual budgets corresponding with the descriptions provided in the statement of work. Additional text to justify expenses should be included as necessary.

(6) Vitae. Abbreviated curriculum vitae are sought with each proposal. Reference lists should be limited to all publications in the last 3 years with up to five other relevant papers.

(7) Current and pending support. For each investigator, submit a list which includes project title, supporting agency with grant number, investigator months, dollar value, and duration. Requested values should be listed for pending support.

#### Other Requirements/Information

(1) Applicants may obtain a standard NOAA application kit from the NOAA Office of Grants Management. Primary applicant Certification: All primary applicants must submit a completed Form CD-511, "Certification Regarding Debarment, Suspension, and Other Responsibility Matters; Drug-Free Workplace Requirements and Lobbying." Applicants are also hereby notified of the following:

(2) Nonprocurement Debarment and Suspension. Prospective participants (as defined at 15 CFR 26.105) are subject to 15 CFR part 26, "Nonprocurement Debarment and Suspension," and the related section of the certification form described above applies to State and Local Governments, as applicable. Applications under this program are not subject to E.O. 12372, "Intergovernmental Review of Federal Programs."

(3) All non-profit and for-profit applicants are subject to a name check review process. Name checks are intended to reveal whether any key individuals associated with the applicant have been convicted of, or are presently facing, criminal charges such as fraud, theft, perjury, or other matters which significantly reflect on the applicant's management, honesty, or financial integrity.

(4) A false statement on an application is grounds for denial or termination of funds and grounds for possible punishment by a fine or imprisonment as provided in 18 U.S.C. 1001.

(5) No award of Federal funds shall be made to an applicant who has an outstanding delinquent Federal debt until either:

(a) The delinquent account is paid in full,

(b) A negotiated repayment schedule is established and at least one payment is received, or

(c) Other arrangements satisfactory to DOC.

(6) Buy American-Made Equipment or Products. Applicants who are authorized to purchase equipment or products with funding provided under this program are encouraged to purchase American-made equipment and products to the maximum extent feasible.

(7) The total dollar amount of the indirect costs proposed in an application under this program must not exceed the indirect cost rate negotiated and approved by a cognizant Federal agency prior to the proposed effective date of the award.

(8) Federal Policies and Procedures. Recipients and subrecipients are subject to all Federal laws and Federal and DOC policies, regulations, and procedures applicable to Federal financial assistance awards.

(9) Pre-award Activities. If applicants incur any costs prior to an award being made, they do so solely at their own risk of not being reimbursed by the Government. Notwithstanding any verbal or written assurance that may have been received, there is no obligation on the part of DOC to cover pre-award costs.

(10) Drug-Free Workplace. Grantees (as defined at 15 CFR Part 26, Section 605) are subject to 15 CFR Part 26, Subpart F, "Government-wide Requirements for Drug-Free Workplace (Grants)," and the related section of the certification form prescribed above applies.

(11) Anti-Lobbying. Persons (as defined at 15 CFR Part 28, Section 105) are subject to the lobbying provisions of 31 U.S.C. 1352, Limitation on use of appropriated funds to influence certain Federal contracting and financial transactions," and the lobbying section of the certification form prescribed above applies to applications/bids for grants, cooperative agreements, and contracts for more than \$100,000, and loans and loan guarantees for more than \$150,000.

(12) Anti Lobbying Disclosures. Any applicant that has paid or will pay for lobbying using any funds must submit an SF-LLL, "Disclosure of Lobbying Activities," as required under 15 CFR Part 28, Appendix B.

(13) Lower Tier Certifications. Recipients shall require applicants/bidders for subgrants, contracts, subcontracts, or other lower tier-covered transactions at any tier under the award

to submit, if applicable, a completed Form CD-512, "Certifications Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions and Lobbying" and disclosure form, SF-LLL, "Disclosure of Lobbying Activities." Form CD-512 is intended for the use of recipients and should not be transmitted to DOC. SF-LLL submitted by any tier recipient or subrecipient should be submitted to DOC in accordance with instructions contained in the award document. If an application is selected for funding, the DOC has no obligation to provide any additional future funding in connection with the award. Renewal of an award to increase funding or extend the period of performance is at the total discretion of the DOC.

In accordance with Federal statutes and regulations, no person on grounds of race, color, age, sex, national origin, or disability shall be excluded from participation in, denied benefits of, or subjected to discrimination under any program or activity receiving financial assistance from the NOAA/NWS. The NOAA/NWS does not have a direct telephonic device for the deaf (TDD capabilities can be reached through the State of Maryland-supplied TDD contact number, 800-735-2258, between the hours of 8 a.m.-4:30 p.m.

#### *Paperwork Reduction Act*

This notice contains collection-of-information requirements subject to the Paperwork Reduction Act. The standard forms have been approved by the Office of Management and Budget pursuant to the Paperwork Reduction Act under OMB approval number 0348-0043, 0348-0044, and 0348-0046.

Notwithstanding any other provision of law, no person is required to respond to nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB control number.

#### *Executive Order 12866*

This notice has been determined to be not significant for purposes of E.O. 12866.

**Authority:** 15 U.S.C. 313; 49 U.S.C. 44720(b); 33 U.S.C. 883d, 883e; 15 U.S.C. 2904; 15 U.S.C. 2931 et seq. (CFDA No. 11.468)—Applied Meteorological Research.

Dated: January 3, 2000.

**John E. Jones, Jr.,**  
*Deputy Assistant Administrator for Weather Services.*

[FR Doc. 00-1517 Filed 1-20-00; 8:45 am]

**BILLING CODE 3510-KE-M**

## DEPARTMENT OF COMMERCE

### Patent and Trademark Office

[Docket No. 991027289-9289-01]

RIN 0651-AB09

### Revised Interim Utility Examination Guidelines; Request for Comments; Correction

**AGENCY:** Patent and Trademark Office, Commerce.

**ACTION:** Notice and request for public comments; correction.

**SUMMARY:** The Patent and Trademark Office (PTO) published a document in the **Federal Register** of December 21, 1999, concerning request for comments on Revised Interim Utility Examination Guidelines. The word "interim" was inadvertently omitted from the document Subject Heading and text. In addition, an extra period divided the second sentence of the Summary caption into fragments. This document corrects the omissions of "interim" and removes the extra period.

#### **FOR FURTHER INFORMATION CONTACT:**

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#### **Correction**

In the **Federal Register** of December 21, 1999, in FR Doc. 99-33054, make the following corrections:

On page 71440, in the second column, correct the "Subject Heading" to read:

#### **Revised Interim Utility Examination Guidelines; Request for Comments**

On page 71440, in the third column, correct the "Summary" caption to read:

**SUMMARY:** The Patent and Trademark Office (PTO) requests comments from any interested member of the public on the following Revised Interim Utility Examination Guidelines. The PTO is publishing a revised version of guidelines to be used by Office personnel in their review of patent applications for compliance with the utility requirement based on comments received in response to the Request for Comments on Interim Guidelines for