ANNOUNCEMENT OF FEDERAL FUNDING OPPORTUNITY

EXECUTIVE SUMMARY

Federal Agency Name(s): Office of the Under Secretary (USEC), National Oceanic and Atmospheric Administration, Department of Commerce


Announcement Type: Initial

Funding Opportunity Number: SEC-OED-2008-2001089

Catalog of Federal Domestic Assistance (CFDA) Number: 11.469, Congressionally Identified Awards and Projects.

Dates: The deadline for applications is 5:00 PM EDT on October 30, 2007.

Funding Opportunity Description: The NOAA Office of Education (OEd) is issuing a request for applications from institutions with interest in developing exhibits featuring spherical display systems showing Earth system science, or developing science modules for these display systems. Spherical display systems are sphere-shaped "screens" onto which global data and other imagery can be shown. Awards will be offered in two priorities, with priority 1 supporting installation of spherical displays systems into public exhibits and priority 2 supporting development and evaluation of Earth system science modules for the spherical display systems. Awards in priority 1 will be made as one-year cooperative agreements and grants. Awards in priority 2 will be made as one or two-year grants. Successful priority 1 projects will support installation of spherical displays systems into public exhibits with an Earth system science theme. Successful priority 2 projects will support partnerships designed to create content focused on Earth system science topics for spherical display systems. The purpose of these awards is to support the incorporation of spherical display systems and compatible, educationally effective environmental data products into public exhibits. The goal of this program is to build environmental literacy among the general public through increased use of NOAA and NOAA-related data and data products in informal education institutions. See NOAA's Education Plan for more details on this goal and strategy: http://www.oesd.noaa.gov/NOAA_Ed_Plan.pdf. It is anticipated that recommendations for funding under this announcement will be made by January 30, 2008 and that projects funded under this announcement will have a start date no earlier than April 30, 2008, and possibly as late as March 30, 2009. Note: an MS Word-formatted version of this announcement is available at http://www.oesd.noaa.gov/funding_opps.html.
I. Funding Opportunity Description

A. Program Objective
The purpose of this document is to advise the public that NOAA's Office of Education (OEd) is requesting applications for (priority 1) installations of spherical display systems for integration into public exhibits with an Earth system science theme, and (priority 2) the development and evaluation of Earth system science modules for these display systems. Funded projects will be one year duration for priority 1, and between one and two years duration for priority 2. Funded projects should expect to start between April 30, 2008 and March 30, 2009. The purpose of these awards is to support the incorporation of spherical display systems and compatible, educationally effective environmental data products into public exhibits.

There are two goals for this program (1) to improve the understanding of how these spherical display systems can be used to enhance informal science education learning, and, (2) to build environmental literacy among the general public through increased use of NOAA data and NOAA-related data and data products in informal education institutions. See NOAA's Education Plan for more details on this goal and strategy: (http://www.oesd.noaa.gov/NOAA_Ed_Plan.pdf)

Spherical display systems are sphere-shaped "screens" onto which global data and other imagery can be shown. The displays typically range in diameter from 18 inches to 6 feet. One example is NOAA's Science On a Sphere (SOS), which consists of a 68-inch diameter opaque sphere onto which 4 video projectors project seamless "movies" of animated Earth system dynamics (http://www.sos.noaa.gov/). Other examples of convex spherical display systems include, but are not limited to, Magic Planet (http://www.globalimagination.com/) and OmniGlobe (http://www.arcscience.com/omni.htm). This funding opportunity does not include installation of concave systems such as immersive caves or domes and other similar technologies.

Funded projects will further NOAA's education goals articulated in the NOAA Education Plan (http://www.oesd.noaa.gov/NOAA_Ed_Plan.pdf). The goals of the NOAA Education Program are to:

- Promote environmental literacy by increasing understanding and use of NOAA data, information and programs;
- Engage audiences and enable informed decision making; and
- Increase the number of people, particularly in underrepresented groups, who choose education and careers supporting NOAA's mission.

Proposed projects should aim to improve environmental literacy among the general public in fields relevant to NOAA-related sciences and to one or more of the
following mission goals of the Agency

- Protect, restore, and manage the use of coastal and ocean resources through an ecosystem approach to management;
- Understand climate variability and change to enhance society's ability to plan and respond;
- Serve society's needs for weather and water information; and
- Support the nation's commerce with information for safe, efficient, and environmentally sound transportation.

This FFO meets NOAA's Mission Goal to provide Critical Support for NOAA’s Mission.

**B. Program Priorities**

NOAA seeks partners to further promote the inclusion of Earth system science concepts in informal science education venues through the development of exhibits involving spherical display systems.

There are two priorities for this competition: priority 1 installations of spherical display systems into public exhibits and, priority 2 development and evaluation of Earth system science modules.

A single institution may apply to both priorities, but with separate applications, one to each priority. Applications will be reviewed independently.

**1. Priority 1: Installation of Spherical Display Systems into Public Exhibits**

Support is available for the installation of spherical display system(s) on public exhibit in informal science education venues such as science centers, museums, and aquariums. These spherical display system(s) should be used to display Earth system science content and are expected to be major components or centerpieces of exhibits related to Earth system sciences. It is preferable that exhibits incorporate the use of NOAA data.

Applicants are sought that can demonstrate previous success in incorporating this type of technology into public exhibits and/or demonstrate sufficient technical capability to support this technology; have large visitorship or serve underserved communities; have well-developed partnerships with formal education institutions or community organizations; and can leverage existing funding. It is expected that successful applicants will evaluate the effectiveness of the installed spherical display systems as Earth system science learning tools. See Section I.B.3. Project Evaluation for guidance.
Applicants should have a facility prepared to begin a public exhibit involving the spherical display system(s) between mid 2008 and mid 2009. For Science On a Sphere, installations should be expected to occur approximately four months after the selected start date. If applicants do not have a facility prepared to receive an installation within these stated timeframes, then an application should be submitted to a future solicitation. Future solicitations will be posted at: http://www.oesd.noaa.gov/funding_opps.html as well as in grants.gov. Once installation has occurred, the spherical display system(s) may remain on public display indefinitely until the institution chooses to dismantle the exhibit or NOAA requests the system to be returned. However, it is required that the display continue to be used in the manner described in the initial grant proposal. Spherical display systems funded through this solicitation must be on display in a public exhibit venue for the majority of the award period. If the display will be removed from public exhibit for more than a two-week period during the award period, prior approval from NOAA must be obtained with the exception of exhibits that are planned as traveling exhibits.

Funding can be requested to cover the following aspects of spherical display systems installation: (1) required hardware, (2) required software*, (3) technical support for the installation of the system*, (4) staff training*, (5) existing library of prepared datasets*, (6) costs associated with necessary site preparation such as room setup, facilities setup, labor charges, personnel salary, exhibit design and fabrication, (7) integration of the display system into existing educational programming, (8) program evaluation, (9) necessary travel, and (10) indirect costs. [Note on asterisks (*): If an applicant is requesting funding for NOAA's Science On a Sphere, funding does NOT have to be requested to cover the items with an asterisk (*) as they are part of the standard award package. Also, see the section below for additional instructions for SOS.]

a. Installations of NOAA's Science On a Sphere

If funding is being requested for NOAA's Science On a Sphere (SOS), applicants should explicitly state this in their project description. See http://sos.noaa.gov/about/ for information on SOS. Because Science On a Sphere is NOAA created and owned, the installation procedure differs from that of other, commercial products. Cooperative agreements will be used as the funding instrument for SOS installations because the installation project requires substantial involvement of and coordination with NOAA personnel. The cooperators/awardees will provide a suitable informal education venue for SOS and display NOAA data products on the system and include prominent attribution to NOAA within the exhibit. NOAA will provide the technical support associated with the installation and training on use of existing content, and system software.

Funded projects involving an installation of Science On a Sphere will receive each of the following: (1) financial support to purchase required and optional hardware for the SOS system, (2) SOS operating software, (3) technical support for the installation of the system, (4) staff training, and (5) existing library of prepared
datasets (See http://sos.noaa.gov/datasets/ for information on the existing datasets). Installation and training will be provided by NOAA personnel at the installation site (unless an applicant can demonstrate substantial knowledge of and experience with installations of the SOS system). Note: SOS has specific site requirements. See http://sos.noaa.gov/docs/requirements.html to ensure your facility can meet these requirements.

For SOS installations, funding will be provided to support the purchase of required, commercially available SOS hardware. Funding must be used to purchase all required hardware unless the applicant demonstrates alternative acquisition mechanisms or current possession of required hardware. Note: all hardware must be exclusively dedicated to the SOS system. A list of the required and optional equipment that constitutes an SOS system is available at http://sos.noaa.gov/equipment/. The required and optional equipment for a standard fully functional SOS system totals approximately $60,000. NOAA personnel are available for consultation on the required and optional hardware list as well as on the requirements for site preparation and installation. Please contact the program manager if a paper copy of the required hardware list is needed.

2. Priority 2: Development and Evaluation of Earth System Science Modules
NOAA is interested in supporting the development of Earth system science content for spherical display systems that is educationally effective. Content deemed educationally effective should be developed utilizing the results of relevant research and assessed for efficacy using appropriate evaluation methods. NOAA's interests are in the areas of Earth system science that are most directly related to the mission of the Agency. Due to the investment NOAA has already made in Science On a Sphere (SOS), content for this spherical display system is of strong interest.

Based on the feedback about content needed for SOS from NOAA's partner institutions, this solicitation will provide support for the development of Earth system science modules that contain story-based content for display on any spherical display system and accompanying materials, technologies, or programs that extend the visitor experience beyond viewing the content on the sphere. The Earth system science module(s) that is/are created should:

- Be structured to tell a compelling Earth system science story that is related to NOAA's mission. The story should explain an Earth system phenomenon and provide the context and relevance of this phenomenon to the general public;
- Have clear messages and learning objectives that will be evaluated;
- Be based on an appropriate combination of data visualizations, animations, video and still imagery, and computer graphics;
- Feature use of NOAA data (can be complemented by other, non-NOAA datasets). Examples of current visualizations involving NOAA data can be found at the Science On a Sphere Picture and Image Gallery (http://sos.noaa.gov/gallery) and the NOAA Environmental Visualization Program (http://www.nvrl.noaa.gov/);
- Include additional content not appropriate for spherical display that provides background information and references for the main story, materials for use with
• school groups (if this is an identified target audience), and/or complimentary content that could be displayed on surrounding panels/screens, kiosks, web sites, or other Earth-viewing platforms* (if appropriate);
• Be structured to be delivered via automatic play mode, but with allowance for components of the sphere content to be used in a docent-led presentation;
• Include an audio script for all sphere content;
• Be able to be displayed on the Science On a Sphere (SOS) System;
• Be of a minimum resolution of 2048 X 1024 pixels for all sphere content;
• Have planetary images plotted on an equatorial cylindrical equidistant projection for all sphere content;
• Be made available as an MPEG-4 file, and/or as a directory of JPEG images with accompanying MP3 file for all sphere content;
• Be based on methods that have been demonstrated to be effective (cite relevant published articles or evaluation studies);
• Be developed through an iterative evaluation (or formative) process; and
• Be evaluated for efficacy at delivering environmental messages after fully developed.

[Note on asterisks (*): Earth-viewing platforms include, but are not limited to the following: SOS, Magic Planet, Omniglobe, Immersive cave or dome technologies, or virtual globes such as, Google Earth, NASA's World Wind and Animated Earth.]

Additional recommendations for effective content can be found in the Science On a Sphere Workshop 2007 report. Applicants are recommended to review this report (http://www.oesd.noaa.gov/sos_workshop_rept). Modules should be created to address a particular audience that is a subset of the visitors to a public science education venue where the sphere is viewable. Module developers should indicate an understanding of the audience, it's scientific literacy and interest in the subject of the proposed module, or plan to gain this information through front-end evaluation. Module components should be selected to match the audience. Topics of priority interest to NOAA include, but are not limited to climate, climate change and variability, the impacts of climate change, any topic related to the ocean literacy essential principles (http://www.coexploration.org/oceanliteracy/), and large-scale weather phenomena. The development of multiple modules may be proposed. While content is required to be displayable on SOS, it is strongly preferred that content be designed such that it can be displayed on more than one earth viewing platform*.

Also of interest is the development of content and content templates that utilize regularly updated data. Developed content will be made publicly available, free of charge, via placement in NOAA's Science On a Sphere Users virtual library (under development).

[Note on asterisks (*): Earth-viewing platforms include, but are not limited to the following: SOS, Magic Planet, Omniglobe, Immersive cave or dome technologies, or virtual globes such as, Google Earth, NASA's World Wind and Animated Earth.]

Characteristics of the ideal Module Development Team include:
• Experience in creating content for or handling content for spherical display systems;
• Knowledge of the specific requirements for the intended spherical display system;
• Experience in crafting compelling and understandable earth system science stories;
• Graphic artistry/animation capability;
• Scientific expertise in topic(s) selected for inclusion in story;
• Experience in creating data visualizations for general audiences;
• Willingness and interest in becoming part of the SOS users collaborative network;
• Experience in evaluating similar content;
• Ability to present project findings at a meeting of the SOS users collaborative network; and,
• Partnership with NOAA sought or developed for improving access to and understanding of NOAA's data resources.

A module development team may consist of multiple institutions working together in partnership. It is required that applicants establish a partnership with at least one institution currently displaying (on public exhibit) SOS. A list of such institutions is available at: http://www.oesd.noaa.gov/sos_exhibits. Modules should be developed in collaboration with this partner. A method of collaborative, iterative prototype module development and formative evaluation should be established involving the partner. It is expected that the partner SOS institution(s) will receive a portion of the project funds to compensate them for their efforts in the project. It is also expected that module developers will participate in future meetings of NOAA's SOS community collaborative network.

Applicants are strongly encouraged to submit letters of commitment from institutions with public displays of spherical display systems indicating their interest in the topic and format of the earth system science module(s) being proposed and their willingness to adopt and use the module(s), once created.

3. Project Evaluation
For projects applying for priority 1 or 2, project evaluation should be specifically addressed and a plan for how the project will be evaluated should be well constructed and included in the project description and budget sections. Project activities should be evaluated for their effectiveness in meeting stated project goals and objectives as well as against the goals of the program, which are (1) improving the understanding of spherical display systems as an effective Earth system science learning tool, and (2) building environmental literacy among the general public through increased use of NOAA data and NOAA-related data and data products in informal education institutions. Evaluation should be handled by an external professional evaluator or by internal staff who has significant experience with evaluation. Evaluation should include assessment of changes in participant's attitudes, knowledge, awareness, and/or behaviors as a result of viewing the spherical display system and the Earth system science content shown. Additional specificity for project evaluation under each priority is provided below.
Also, during the project, the institution with the spherical display system may be asked to participate in a program-wide evaluation. A small portion of the budget devoted to evaluation should be planned to accommodate this participation.

a. Priority 1
It is expected that successful applicants will evaluate the effectiveness of the installed spherical display systems as an Earth system science learning tool. Also, data should be collected on the number of visitors who see the spherical display system in a given period of time, or minimally, the percentage of the overall visitors to the entire institution who view the spherical display system and the average time spent viewing the system.

b. Priority 2
It is expected that successful applicants will create an evaluation process to determine the type of content that is most effective in conveying the desired Earth system science messages. The process should involve front-end, formative, remedial, and summative evaluation. A method of iterative prototype module development and formative evaluation should be established involving the SOS institution partner(s). Evaluation should be conducted throughout the entire project beginning with consultation with an evaluator during the project conception phase.

C. Program Authority
Authority for this program is provided by the following: 15 U.S.C. 1540.

D. Cost Principles
Funds awarded cannot necessarily pay for all the costs that the recipient might incur in the course of carrying out the project. Allowable costs are determined by reference to the Office of Management and Budget Circulars A-122, "Cost Principles for Nonprofit Organizations"; A-21, "Cost Principles for Education Institutions"; and A-87, "Cost Principles for State, Local and Indian Tribal Governments." Generally, costs that are allowable include salaries, equipment, supplies, and training, as long as these are "necessary and reasonable."

II. Award Information
A. Funding Availability
NOAA anticipates the availability of approximately $4,000,000 of Federal financial assistance from FY08 and FY09 for Environmental Literacy Grants for Spherical Display Technologies for Earth System Science--Installations and Content Development.

Approximately $500,000 for each fiscal year may be dedicated to awards in priority 1. NOAA will only consider projects for priority 1 that have a requested award period of one year. The total Federal amount that may be requested from NOAA for projects in priority 1 shall not exceed $100,000 including direct and indirect costs. Applications to priority 1 requesting Federal support from NOAA of more than $100,000 total will not be considered for funding through this announcement.

Approximately $1,500,000 for each fiscal year may be dedicated to awards in priority 2. NOAA will only consider projects for priority 2 that have durations of one to two years. The total Federal amount that may be requested from NOAA for priority 2 shall not exceed $300,000 including direct and indirect costs. Applications for priority 2 requesting Federal support from NOAA of more than $300,000 total will not be considered for funding.

The amount of funding available through this announcement will be dependent upon the final FY08 and FY09 appropriation. Publication of this notice does not oblige DOC/NOAA to award any specific project or to obligate any available funds. It is possible that there will NOT be an additional solicitation issued for these projects for FY09 funding. If an applicant incurs any costs prior to receiving an award agreement from an authorized NOAA Grants Officer, the applicant would do so solely at one's own risk of such costs not being included under the award.

A single institution may apply to both priorities, but with separate applications, one to each priority. Applications will be reviewed and selected independently.

B. Project/Award Period
For priority 1 (installations), applications should cover a project period of 12 months. Start dates can range from April 30, 2008 (at the earliest) to March 30, 2009.

For priority 2 (content development), applications should cover a project period of up to 24 months. Start dates can range from April 30, 2008 (at the earliest) to March 30, 2009.

Applicants selected to receive funding may be asked to modify the project start date. It is recommended to include in your project description the flexibility of
the requested start date. In anticipation of additional funding, applications may be retained through September 2009 and then destroyed.

C. Type of Funding Instrument
Grants and cooperative agreements will be awarded to fund the successful projects. Cooperative agreements will be used as the funding instrument for projects involving installation of NOAA’s Science On a Sphere (SOS) because the project requires substantial involvement of and coordination with NOAA personnel. The cooperators/awardees will provide a suitable informal education venue for SOS and display NOAA data products on the system with prominent attribution to NOAA within the exhibit. NOAA will provide the technical support associated with the installation and use of NOAA data, as well as the software associated with the system for the 12-month award period.

III. Eligibility Information

A. Eligible Applicants
Eligible applicants are institutions of higher education, other nonprofits, and state, local and Indian tribal governments in the United States. For profit organizations, foreign institutions, foreign organizations and foreign government agencies are not eligible to apply. For-profit organizations can be project partners. Federal agencies are not eligible to receive Federal assistance under this announcement, but may be project partners.

The Department of Commerce/National Oceanic and Atmospheric Administration (DOC/NOAA) is strongly committed to increasing the participation of Minority Serving Institutions (MSIs), i.e., Historically Black Colleges and Universities, Hispanic-serving institutions, Tribal colleges and universities, Alaskan Native and Native Hawaiian institutions, and institutions that work in underserved communities. Applications are encouraged that involve any of the above types of institutions.

An individual may apply only once per priority as principal investigator (PI) through this funding opportunity. However institutions may submit more than one application and individuals may serve as co-PIs or key personnel on more than one application.

B. Cost Sharing or Matching Requirement
There are no cost-sharing requirements. Applicant resource commitment will, however, be considered in the competitive selection process (see V. A. 4. Evaluation Criteria, Project Costs).

**C. Other Criteria that Affect Eligibility**

Applications with budgets in which the total Federal share requested from NOAA is more than $100,000 for priority 1 or $300,000 for priority 2 for the direct and indirect costs of the proposed project will not be considered for review.

Applications that are lacking any of the required elements of the application or do not follow the format prescribed in IV.B will not be reviewed.

Applications received after the deadline will not be reviewed. See additional details in Section IV. C.

An individual may serve as a principal investigator on only one application to each priority through this funding opportunity.

**IV. Application and Submission Information**

**A. Address to Request Application Package**

Application forms are available through grants.gov (http://www.grants.gov). If an applicant does not have Internet access, please contact the program officer for information on how to submit an application. The program officer can be reached at the following mailing address: Carrie McDougall, Dept. of Commerce, NOAA Office of Education, 1401 Constitution Avenue NW, Room 6863, Washington, DC 20230, or by phone (202) 482-0875, or by e-mail carrie.mcdougall@noaa.gov.

If an applicant has problems downloading the application package from Grants.gov, contact Grants.gov Customer Support at 1-800-518-4726 or support@grants.gov. For non-Windows computer systems, please see http://www.grants.gov/resources/download_software.jsp#non_window for information on how to download and submit an application through Grants.gov.

**B. Content and Form of Application**

The provisions for application preparation are mandatory. Failure to comply
with the stated format and content requirements will result in the application not being reviewed. Additional information on completing an application, including frequently asked questions (FAQs) can be found at http://www.oesd.noaa.gov/dataviz_faqs.html.

1. FORMAT: The page margin on standard letter-size paper must be one inch (2.5 cm) at the top, bottom, left, and right. All pages should be numbered. The typeface must be standard 11-point size or larger and must be clear and easily legible. Color or high-resolution graphics, unusually sized materials, or otherwise unusual materials submitted as part of the application are allowed, but should be employed only when necessary for adequate description of the proposed project. All narrative sections of the application should be single spaced and consist of the sections described in Section IV.B.2. Failure to comply with the required format and within the prescribed page limits will result in the application not being reviewed.

2. CONTENT: Full applications must include the elements (a) through (i) below; element (j) is optional. Failure to provide this information in the required format and within prescribed page limits will result in the application being excluded from further review.

   (a) Required Forms. At the time of application submission, all applicants anticipating direct funding shall submit the following forms with signatures of authorizing representative of the submitting institution (Note: submission through Grants.gov results in automatic electronic signatures on these forms. Paper applications must have these forms with a "wet" signature):
   (i) SF-424, Application for Federal Assistance
   (ii) SF-424-A, Budget Information, Non-Construction Programs
   (iii) SF-424-B, Assurances, Non-Construction Programs
   (iv) CD-511, Certifications Regarding Lobbying
   (v) SF-LLL, Disclosure of Lobbying Activities (if applicable, see instructions on form)

   Only the versions of these forms available in Grants.gov are acceptable for electronic submission. If submitting a paper application, you must contact the program officer for paper versions of these forms.

   (b) Title Page. The title page identifies the priority to which you are applying, the project's title, the PI's and co-PI's names, affiliations, complete mailing addresses, email addresses, telephone numbers and fax numbers. There should be an executive summary of the project that does not exceed 150 words. The proposed start and end dates for the project, and requested budget must also be included on the title page. Title page templates are available at http://www.oesd.noaa.gov/funding_templates.html.

   (c) One-page Abstract. Describe the essential elements of the proposed project. Include: (1) Project Title; (2) List of names and affiliations of each investigator who will significantly contribute to the project; (3) Total funding
requested from NOAA; and (4) Concise statement of the objectives of the project, description of the project activities, the location of the project, the expected outcome(s) and the rationale for the work proposed. The abstract is used to help compare applications quickly and allows the respondents to summarize these key points in their own words. Project summaries of applications that receive funding may be posted on program-related websites. The abstract should appear on a separate page, and not exceed one page in length.

(d) 15-page Project Description. The project description section must not exceed 15 pages and must follow the requirements in IV.B.2, Application Format. Page limits are inclusive of figures and other visual materials, but exclusive of references, budget information, resumes, milestone charts, proposed work plans, and letters of commitment. Each page of the project description should include page numbers and the PI's name in the header or footer.

The proposed project must be completely described. The project description should clearly describe project implementation and management. It should provide a full justification for and explanation of the project. This section should also include:

(i) The priority to which you are applying, the objective(s), expected outcomes, and an explanation for how the activity and outcomes support the priorities of this funding program (refer to I.B);

(ii) For priority 1, descriptions of how the spherical display system will be incorporated into public exhibits, how visitor interaction with the system will occur (i.e., if facilitators will be used to explain content, if a kiosk will allow users to interact with the system, or if automated narrated play sequences will run), the key messages associated with the exhibit, and the datasets or other media that are planned for display. Specifically, describe how NOAA science themes or mission goals will be incorporated into the overall exhibit, and how NOAA's contribution will be attributed;

For priority 2, descriptions of the Earth system science story/ies that will be the focus of the module(s); the main messages and learning objectives of the story(ies); all of the component parts of the module(s); the types of data products and visualizations that will be used; the need for the module(s), including any research or evaluation studies that indicate their necessity or basis; the process for creating the module(s) and how this will actively involve partners; and the dissemination plan that clearly demonstrates that the content will be displayed in public settings. Specifically, describe how NOAA science themes or mission goals will be incorporated into the content, and how NOAA's contribution will be attributed;

(iii) For priority 2, a description of the platforms on which the content can be viewed, novel ways the content is made to be more engaging, how the method of content presentation is appropriate given the target audience, presentation style, and the learning objectives.

(iv) A discussion of how the proposed project reflects or addresses components of the NOAA Education Plan;

(v) For priority 1, a discussion of the institution's capability to meet the requirements of the installation of a spherical display system (For Science On a Sphere, see the SOS Proposed Work Plan for Installation in IV.B.1.f) with details on
technical capabilities of the facility and staff. Include a description of any previous experience with incorporating this type of technology into public exhibits and any in-house or contracted technical support or data visualization/media content creation capability the applicant possesses;

For priority 2, a discussion of the institution's or partnership's capability to create engaging and informative content on spherical display systems. Include a description of any previous experience with incorporating this type of technology into public exhibits and any in-house or contracted technical support or data visualization/media content creation capability the applicant possesses. Specifically address how the proposed team meets the criteria described in section I. B. Program Priorities, Priority 2.

(vi) A description of the visitorship to the institution(s) that will display the content or exhibit the system, and any existing partnerships with community groups or formal education institutions;

(vii) A description of how partners or partnership programs may benefit from this project;

(viii) A description of any in-kind resources or equipment that will be provided;

(ix) A description of any other funding that is being sought or has been obtained that could be leveraged to complement this project;

(x) A description of the capabilities of the personnel that will be involved in the project;

(xi) A description of how project results will be disseminated beyond the audience immediately involved in the activities of the project;

(xii) A description of how the project activities will be evaluated for their effectiveness in meeting stated project goals and objectives as well as against the goals of (1) improving the understanding of spherical display systems as an effective Earth system science learning tool, and (2) building environmental literacy among the general public through increased use of NOAA data and NOAA-related data and data products in informal education institutions. See Section I.B.3. Project Evaluation for guidance.

(e) References Cited. Reference information is required. Each reference must include the names of all authors in the same sequence in which they appear in the publication, the article title, publication or publication title, volume number, page numbers, and year of publication. While there is no established page limit, this section should include bibliographic citations only and should not be used to provide parenthetical information outside the 15-page project description. If there are no references to cite, applicants must indicate that this is the case.

(f) Proposed Work Plan and Milestone Chart. Describe the involvement of your institution and partners including deliverables. Provide time lines of major tasks and potential outcomes covering the duration of the proposed project, including project evaluation. For priority 1, indicate a preferred installation schedule. However, also provide the flexibility associated with the requested time line as start dates could be delayed by up to 12 months depending on funding levels. (See http://www.oesd.noaa.gov/funding_templates.html for a template for an SOS
(g) **Budget.** All applications must include a budget section that contains both a table and a narrative, as well as the required official budget form (SF-424A). Both the table and the narrative should use the same categories as shown on the SF-424A form.

The Budget Section should provide enough detail to allow OEd staff and the review panel to evaluate the level of effort proposed by investigators and staff on a specific project. When appropriate, the narrative and table must provide details on: personnel salaries and fringe benefits (broken out by percent time and number of months devoted to the project for each individual to be paid by the project); travel including per person and per trip costs for transportation, lodging and meals; equipment; supplies; contractual costs, such as anticipated sub-awards; and other costs, including printing, publications and communication costs. Funding should also be requested to provide for the PI(s) to attend annual meetings of the NOAA SOS community collaborative network (assume meeting will require at least one person to travel to Washington DC for 3 days). See [http://www.oesd.noaa.gov/funding_templates.html](http://www.oesd.noaa.gov/funding_templates.html) for a budget narrative template and model and a budget table model. Documentation regarding indirect-cost-rate agreements must also be included. For additional guidance on providing adequate budget justifications, visit [http://www.oesd.noaa.gov/funding_templates.html](http://www.oesd.noaa.gov/funding_templates.html) and click on "NOAA Standard Budget Guidelines".

**Priority 1**

Funding can be requested to cover the following aspects of spherical display systems installation: (1) required hardware, (2) required software*, (3) technical support for the installation of the system*, (4) staff training*, (5) existing library of prepared datasets*, (6) costs associated with necessary site preparation such as room setup, facilities setup, labor charges, personnel salary, exhibit design and fabrication, (7) integration of the display system into existing educational programming, (8) program evaluation, (9) necessary travel, and (10) indirect costs. [Note on asterisks (*): If an applicant is requesting funding for NOAA’s Science On a Sphere (SOS), funding does NOT have to be requested to cover the items with an asterisk (*) as they are part of the standard award package.] Although a range of budgets for the project evaluations will be accepted, it is not unreasonable for 10-15% of the budget to be allotted to a comprehensive evaluation of the project. Funding should also be requested to provide for PI to attend annual meetings of the NOAA SOS community collaborative network (assume meeting will require at least one person to travel to Washington DC for 3 days). If appropriate, also include in the budget narrative, a description of any in-kind resources or equipment that will be provided as well as a description of any other funding that is being sought or has been obtained that could be leveraged to complement this project.

For projects involving installation of Science On a Sphere, the budget narrative and table should include the details provided in the list of required and optional hardware supplies and equipment and their associated costs or a reduced list of required hardware with an explanation as to how the other required equipment will be supplied. See [http://sos.noaa.gov/equipment/](http://sos.noaa.gov/equipment/) for hardware list. Applicants should modify this hardware list to reflect those items required for their site's installation.
needs and use this as the basis of the budget request. If the applicant is able to offset the retail costs of the required hardware due to existing agreements with certain vendors or because the hardware is already owned by the applicant or will be secured by another means, then that should be clearly stated.

Priority 2

The same amount of budget detail provided for the lead institution's activities should be provided for all partners and any planned subcontracts associated with the grant. Although a range of budgets for the project evaluations will be accepted, it is not unreasonable for 15-20% of the budget to be allotted to the front-end, formative, remedial, and summative evaluation of the project.

(h) Brief Resumes. All principal investigators, co-principal investigators, and/or key personnel of project partners must provide summaries of no more than 3 pages per person that include a list of professional and academic credentials and contact information (mailing address, email address, phone, fax); Resumes should demonstrate skills and expertise in areas described in Section I. B. 2 for priority 2 applications. Failure to provide this information in the required format and within the prescribed page limits will result in the application not being reviewed.

(i) Current and Pending Support. Describe all current and pending Federal and non-Federal funding for all principal investigators (PIs) and co-PIs. The capability of the applicants (PIs and co-PIs) and their collaborators to complete the proposed work in light of present commitments to other projects must be assessable. Therefore, please list the percentage of time the applicant and collaborators have committed to other Federal or non-Federal projects, as compared to the time that will be committed to the project solicited under this notice. If the applicants have no current or pending funding beyond this application, this must be clearly indicated under a heading "Current and Pending Support".

(j) Letters of commitment or other supplemental materials. If substantive partnerships are described in the project description, letters of commitment should be provided. Letters of commitment are important for demonstrating the commitment of project partners. Letters of commitment should be submitted as separate attachments in Grants.gov or submitted along with the paper application. Any other supplemental material should also be submitted as separate attachments in Grants.gov. Letters submitted after the application deadline should be transmitted by e-mail to the program officer or by express delivery.

(k) NEPA Questionnaire. The Office of Education has determined that applicants do not need to provide answers to the NOAA NEPA Questionnaire at this time.
C. Submission Dates and Times
The deadline for applications is 5:00 PM, EDT on October 30, 2007.

Applications submitted through Grants.gov APPLY will be accompanied by an automated receipt of the date and time of submission and will be the basis of determining timeliness. Additional instructions for Grants.gov can be found at http://www.oesd.noaa.gov/dataviz_faqs.html.

Note: The Grants.gov validation process for a submitted application can take up to 48 hours to complete (following submission through Grants.gov). Only "validated" applications are sent to NOAA for review. To ensure successful submission of an application, it is strongly recommended that a final and complete application is submitted 48 hours prior to the submission deadline.

If an applicant does not have Internet access, paper applications will be accepted and date and time stamped **when they are received** in the Department of Commerce Building. Facsimile or e-mail transmissions of applications will not be accepted. **Electronic or paper applications received after the deadline will not be considered for review** and will be destroyed. Except in the case where the applicant can document that the paper application was provided to a guaranteed delivery service for delivery by 5:00 PM, EDT on October 30, 2007 and the application is received in the Office of Education no later than 5 p.m. EDT, November 1, 2007 to the address listed in Section IV. F. "Other Submission Requirements". Please note: paper applications submitted via the US Postal Service can take up to 4 weeks to reach this office; therefore applicants are recommended to send paper applications via expedited shipping methods (e.g., Airborne Express, DHL, Fed Ex, UPS).

D. Intergovernmental Review
Applications submitted to this funding opportunity **are not subject** to Executive Order 12372, Intergovernmental Review of Federal Programs.

E. Funding Restrictions
There are no special restrictions.

F. Other Submission Requirements
Applications should be submitted through Grants.gov APPLY (http://www.grants.gov). It is strongly suggested that Grants.gov be accessed using
Internet Explorer for maximum compatibility. Because first-time registration with Grants.gov can take up to three weeks, it is strongly recommended that this registration process is completed as soon as possible. Also, even if an applicant has registered with Grants.gov previously, the applicant's password may have expired. It is recommended that submission through Grants.gov be attempted 2 days prior to the deadline to avoid electronic submission errors. See the Office of Education's frequently asked questions site http://www.oesd.noaa.gov/dataviz_faqs.html for more details.

If an applicant does not have Internet access, paper applications will be accepted. Paper applications must be submitted with completed, signed, original forms and one printed copy of the rest of the application. Applicants are also asked to provide a CD of the application, including scanned signed forms or forms with electronic signatures. Paper applications should be delivered to: Carrie McDougall, Dept. of Commerce, NOAA Office of Education, 1401 Constitution Avenue NW, Room 6863, Washington, DC 20230. See the Office of Education's frequently asked questions site http://www.oesd.noaa.gov/dataviz_faqs.html for more details.

V. Application Review Information

A. Evaluation Criteria
Applications submitted to the two priorities will be reviewed separately. Please review the evaluation criteria that applies to the priority to which you are submitting your application.

Priority 1
(1) Importance and/or relevance and applicability of proposed project to the program goals (30%): This ascertains whether there is intrinsic value in the proposed work and/or relevance to NOAA's Federal, regional, or local activities. The application should address how well the proposed project addresses NOAA's stated objectives and priorities. Reviewers will evaluate:

• How well the project addresses the program priorities (refer to Section I.B);
• How well aligned the project is with NOAA education goals and strategies;
• The extent to which NOAA mission goal topics or NOAA-related science themes are incorporated into the exhibit, and how well incorporated is NOAA data or NOAA-related data;
• The likelihood that the project will impact environmental literacy in any of NOAA's mission goal areas; and
• The likelihood that existing partnerships with formal education institutions and community organizations will benefit from the spherical display system.

(2) Technical/scientific merit (30%): This assesses whether the approach is
technically sound and/or innovative, if the methods are appropriate, and whether there are clear project goals and objectives. Reviewers will evaluate:

- The completeness and adequacy of detail in the project description including clearly stated goals and measurable objectives;
- The overall technical feasibility of the project, including whether the proposed approach is educationally and technically sound and uses appropriate methods to achieve project outcomes, and specifically, is the plan for incorporation of the spherical display system into existing exhibits appropriate;
- The likelihood of meeting milestones and achieving anticipated results in the time proposed;
- Whether there are appropriate mechanisms to evaluate the success of the project in meeting the anticipated outcomes; and,
- If the institution serves a sufficiently large and diverse audience or serves an underserved audience.

3) Overall Qualifications of Applicants (15%): This ascertains whether the applicant possesses the necessary education, experience, training, facilities, and administrative resources to accomplish the project. Reviewers will evaluate:

- The qualifications and demonstrated ability within their areas of expertise of the applicants, of key personnel who would receive funds from this program, and of key personnel of project's partners;
- If the institution serves a sufficiently large and diverse audience or serves an underserved audience;
- The applicant's previous experience in implementing a similar technical project;
- The adequacy of the facility and computer/IT support to house and operate the spherical display system; and
- The technical capability of the personnel involved, including the ability to provide technical support for the spherical display system and/or create stories using the existing content.

4) Project Costs (15%): The budget is evaluated to determine if it is realistic and commensurate with the project needs and time-frame. Reviewers will evaluate:

- The adequacy of the proposed resources to accomplish the proposed work within the indicated time-frame, specifically have all required hardware costs been covered either through requested funds or through in-kind support;
- If other funding is being leveraged to complement requested funds;
- Adequacy of in-kind resources and equipment being provided;
- If funds are requested for partial support of a project, how does the overall project budget allow an informed determination of the project's readiness and cost-benefit ratio; and
- How well justified are all costs associated with the project.

5) Outreach and Education (10%): This criterion ascertains whether this project provides a focused and effective education and outreach strategy regarding NOAA's mission to protect the Nation's natural resources. Reviewers will evaluate how the outcomes and results of the proposed project will be disseminated to
audiences beyond those participating directly in the project. These may include publications, conferences, community events, media, etc.

- How well NOAA will be attributed in the content or exhibit;
- The intention to collaborate with the other users of this technology and specifically with NOAA's SOS users collaborative network; and
- The likelihood that the project will increase awareness of NOAA and NOAA-related sciences.

**Priority 2**

1. Importance and/or relevance and applicability of proposed project to the program goals (30%): This ascertains whether there is intrinsic value in the proposed work and/or relevance to NOAA's Federal, regional, or local activities. The application should address how well the proposed project addresses NOAA's stated objectives and priorities. Reviewers will evaluate:
   - How well the project addresses the program priorities (refer to Section I.B);
   - How well aligned the project is with NOAA education goals and strategies
   - The extent to which NOAA mission goal topics or NOAA-related science themes are incorporated into the exhibit, and how well incorporated is NOAA data or NOAA-related data; and
   - The likelihood that project will impact environmental literacy in any of NOAA's mission goal areas.

2. Technical/scientific merit (30%): This assesses whether the approach is technically sound and/or innovative, if the methods are appropriate, and whether there are clear project goals and objectives. Reviewers will evaluate:
   - The completeness and adequacy of detail in the project description including clearly stated goals and measurable objectives;
   - The overall technical feasibility of the project, including whether the proposed approach is educationally and technically sound and uses appropriate methods to achieve project outcomes;
   - The likelihood of meeting milestones and achieving anticipated results in the time proposed;
   - Whether there are appropriate mechanisms to evaluate the success of the project in meeting the anticipated outcomes;
   - The innovativeness of the project approach or product to be delivered; and
   - If the module(s) to be developed are of sufficient "high impact". Impact will be assessed by the number of institutions with spherical display technologies willing to use the content and the relevancy of the topic to NOAA's mission and current scientific issues of significance.

3. Overall Qualifications of Applicants (15%): This ascertains whether the applicant possesses the necessary education, experience, training, facilities, and administrative resources to accomplish the project. Reviewers will evaluate:
   - The qualifications and demonstrated ability within their areas of expertise of the applicants, of key personnel who would receive funds from this program, and of key personnel of project's partners;
• The applicant's previous experience in implementing a similar technical project;
• The adequacy of the facility to create content; and
• The technical capability of the personnel involved, including the ability to create content or new data visualizations for display on spherical display systems.

(4) Project Costs (15%): The budget is evaluated to determine if it is realistic and commensurate with the project needs and time-frame. Reviewers will evaluate:
• The adequacy of the proposed resources to accomplish the proposed work within the indicated time-frame;
• If other funding is being leveraged to complement requested funds;
• Adequacy of in-kind resources and equipment being provided;
• If funds are requested for partial support of a project, how does the overall project budget allow an informed determination of the project's readiness and cost-benefit ratio;
• Has the scope of the evaluation plan been adequately budgeted;
• Are partners being adequately compensated for their efforts; and
• How well justified are all costs associated with the project.

(5) Outreach and Education (10%): This criterion ascertains whether this project provides a focused and effective education and outreach strategy regarding NOAA's mission to protect the Nation's natural resources. Reviewers will evaluate how the outcomes and results of the proposed project will be disseminated to audiences beyond those participating directly in the project. These may include publications, conferences, community events, media, etc.
• How well NOAA will be attributed in the content or exhibit;
• The intention to collaborate with the other users of this technology and specifically with NOAA's SOS users collaborative network; and
• The likelihood that the project will increase awareness of NOAA and NOAA-related sciences.

B. Review and Selection Process
Upon receipt of a completed application by NOAA, an initial administrative review is conducted to determine compliance with requirements and completeness of the application. All applications that meet the eligibility and minimum requirements and that are ascertained to be complete will be evaluated and scored by independent reviewers. The reviews will be conducted by mail and panel review. Reviewers may be Federal or non-Federal experts, each having expertise in a separate area so that the reviewers as a whole cover the spectrum of applications received. There will be two review panels, one for each priority. The reviewers will score each application using the evaluation criteria and relative weights provided above. The individual review ratings shall be averaged for each application to establish rank order for each priority and presented to the Program Officer. No consensus advice will be given by the reviewers. The Program Officer will neither vote nor score applications as part of the
review process nor participate in discussion of the merits of any application.

The Program Officer will make his/her recommendations for funding based on rank order and the selection factors listed in the next paragraph to the Selecting Official, the Director of NOAA Education, for the selection of applications.

C. Selection Factors

The panel review ratings shall provide a rank order to the Selecting Official for final recommendation to the NOAA Grants Officer. The Selecting Official will select applications from each priority based on the evaluation criteria and rank order established by each panel unless the application is justified to be selected out of rank order based upon one or more of the following factors:

1. Availability of funding;
2. Balance/distribution of funds:
   a. Geographically
   b. By type of institutions
   c. By type of partners
   d. By research areas
   e. By project types
3. Whether this project duplicates other projects funded or considered for funding by NOAA or other federal agencies;
4. Program priorities and policy factors;
5. Applicant's prior award performance;
6. Partnerships and/or Participation of targeted groups;
7. Adequacy of information necessary for NOAA staff to make a NEPA determination and draft necessary documentation before recommendations for funding are made to the Grants Officer.

Selected applicants may be asked to modify objectives, project plans, time lines, or budgets, and provide supplemental information required by the agency prior to the award. When a decision has been made (whether an award or declination), anonymous copies of reviews and summaries of review panel deliberations, if any,
will be made available to the applicant.

In anticipation of additional funding, applications will be retained until September 2009 and may be funded if additional funds become available in FY08 or from newly appropriated FY09 funds. After September 2009 all applications not funded will be destroyed.

D. Anticipated Announcement and Award Dates
Subject to the availability of funds, review of applications will occur during January 2008. Recommendations for funding will be made in January 2008. Awards will be made approximately in April 2008. Start dates should be no earlier than April 30, 2008, and possibly as late as March 30, 2009.

VI. Award Administration Information

A. Award Notices
Successful applicants will receive notification (either hard copy or electronically) from OEd that the application has been recommended for funding to the NOAA Grants Management Division in February 2008. This notification is not an authorization to begin performance of the project. Official notification of funding, authorized by a NOAA Grants Officer, is the authorizing document that allows the project to begin. Notifications will be made by e-mail from Grants Online to the Authorizing Official of the project.

Unsuccessful applicants will be notified that their reviewed application was not recommended for funding (declined) or was not reviewed because it did not meet the minimum requirements prescribed in Sections IV.B and IV.C by April 2008.

B. Administrative and National Policy Requirements
Indirect Costs: the budget may include an amount for indirect costs if the applicant has an established indirect cost rate with the Federal government. Indirect costs are essentially overhead costs for basic operational functions (e.g., utilities, rent, insurance) that are incurred for common or joint objectives and, therefore, cannot be identified specifically within a particular project. A copy of the current, approved
negotiated indirect cost agreement with the Federal Government must be included with the application. If the applicant does not have a current negotiated rate and plans to seek reimbursement for indirect costs, documentation necessary to establish a rate must be submitted within 90 days of receiving an award.

If an application is selected for multi-year funding, NOAA has no obligation to provide any additional prospective funding in connection with that award in subsequent years. Any subsequent proposal to continue work on an existing project must be submitted to the competitive process for consideration and will not receive preferential treatment. Renewal of an award to increase funding or to extend the period of performance is at the total discretion of NOAA.

The recipients must comply with Executive Order 12906 regarding any and all geospatial data collected or produced under grants or cooperative agreements. This includes documenting all geospatial data in accordance with the Federal Geographic Data Committee Content Standard for digital geospatial data. The Program uses only the existing NOAA Federal financial assistance awards package requirements per 15 CFR parts 14 and 24.

**National Environmental Policy Act (NEPA)**

NOAA must analyze the potential environmental impacts, as required by the National Environmental Policy Act (NEPA), for applicant projects or proposals which are seeking NOAA federal funding opportunities. Detailed information on NOAA compliance with NEPA can be found at the following NOAA NEPA website: http://www.nepa.noaa.gov/, including our NOAA Administrative Order 216-6 for NEPA, http://www.nepa.noaa.gov/NAO216--6--TOC.pdf, and the Council on Environmental Quality implementation regulations, http://ceq.eh.doe.gov/nepa/regs/ceq/toc_ceq.htm. Consequently, as part of an applicant's package, and under their description of their program activities, applicants are required to provide detailed information on the activities to be conducted, locations, sites, species and habitat to be affected, possible construction activities, and any environmental concerns that may exist (e.g., the use and disposal of hazardous or toxic chemicals, introduction of non-indigenous species, impacts to endangered and threatened species, aquaculture projects, and impacts to coral reef systems). In addition to providing specific information that will serve as the basis for any required impact analyses, applicants may also be requested to assist NOAA in drafting of an environmental assessment, if NOAA determines an assessment is required. Applicants will also be required to cooperate with NOAA in identifying feasible measures to reduce or avoid any identified adverse environmental impacts of their proposal. The failure to do so shall be grounds for not selecting an application. In some cases if additional information is required after an application is selected, funds can be withheld by the Grants Officer under a special award condition requiring the recipient to submit additional environmental compliance information sufficient to enable NOAA to make an assessment on any impacts that a project may have on the environment.
Pre-Award Notification Requirements for Grants and Cooperative Agreements

The Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements contained in the Federal Register notice of December 30, 2004 (69 FR 78389) are applicable to this solicitation.

Limitation of Liability

In no event will NOAA or the Department of Commerce be responsible for proposal preparation costs if these programs fail to receive funding or are cancelled because of other agency priorities. Publication of this announcement does not obligate NOAA to award any specific project or to obligate any available funds. Recipients and sub-recipients are subject to all Federal laws and agency policies, regulations and procedures applicable to Federal financial assistance awards.

Paperwork Reduction Act

This notification involves collection-of-information requirements subject to the Paperwork Reduction Act. The use of Standard Forms 424, 424A, 424B, and SFLLL and CD-346 has been approved by the Office of Management and Budget (OMB) under control numbers 0348-0043, 0348-0044, 0348-0040 and 0348-0046 and 0605-0001. Notwithstanding any other provision of law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the PRA unless that collection of information displays a currently valid OMB control number.

Executive Order 12866

It has been determined that this notice is not significant for purposes of Executive Order 12866.

Executive Order 13132 (Federalism)

It has been determined that this notice does not contain policies with Federalism implications as that term is defined in Executive Order 13132.

Administrative Procedure Act/Regulatory Flexibility Act

Prior notice and an opportunity for public comment are not required by the Administrative procedure Act or any other law for rules concerning public property, loans, grants, benefits, and contracts (5 U.S.C. 553(a)(2)). Because notice and opportunity for comments are not required pursuant to 5 U.S.C. 553 or any other law, the analytical requirements of the Regulatory Flexibility Act (5 U.S.C. 601 et seq.) are inapplicable. Therefore, a regulatory flexibility analysis has not been prepared, and none has been prepared. It has been determined that this notice does not contain policies with Federalism implications as that term is defined in Executive Order 13132.

C. Reporting
Progress reports are due every six months from the start date of the project. Progress reports should be submitted electronically through the NOAA Grants Online system and are due for all award recipients no later than 30 days after each 6-month project period. A final report is due no later than 90 days after the expiration date of an award. Progress reports should detail the accomplishments that have occurred during the reporting period, correspond with the goals and objectives identified in the project narrative and provide specific, project-related information. A template for project reports will be provided to grantees.

Federal Cash Transaction reports, form SF-272, should be submitted electronically through the NOAA Grants Online system and are due semi-annually on October 30th and April 30th for the preceding 6-month period (April 1st to September 30th and October 1st to March 30th) or portion there of if the project start- or end-date falls in the middle of one of these intervals. Financial reports are due for all award recipients no later than 30 days after each 6-month period.

VII. Agency Contacts
Please visit the OEd website for further information at http://www.oesd.noaa.gov/funding_opps.html or contact Carrie McDougall at (202) 482-0875 or carrie.mcdougall@noaa.gov; or John McLaughlin at (202) 482-2893 or john.mclaughlin@noaa.gov.

For those applicants without Internet access, hard copies of referenced documents may be requested from NOAA’s Office of Education by contacting Carrie McDougall at (202) 482-0875 or John McLaughlin at (202) 482-2893 or sending a letter to Carrie McDougall, DOC/NOAA Office of Education, 1401 Constitution Avenue NW, Room 6863, Washington, DC 20230.

VIII. Other Information
None.