NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)

NASA Headquarters
Office of STEM Engagement

2019 NASA Teams Engaging Affiliated Museums and Informal Institutions
(TEAM II)

NASA RESEARCH ANNOUNCEMENT (NRA)

ANNOUNCEMENT NUMBER: NNH19ZHA002N

CATALOG OF FEDERAL DOMESTIC ASSISTANCE (CFDA) NUMBER: 43.008

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Initial Announcement

ISSUED: May 2, 2019

PRE-PROPOSAL TELECON (optional): May 15, 2019

NOTICES OF INTENT DUE (strongly encouraged): May 22, 2019

PROPOSALS DUE: August 13, 2019

OMB Approval Number 2700-0092
Expires 12/31/19
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EXECUTIVE SUMMARY

This National Aeronautics and Space Administration (NASA) Research Announcement (NRA), entitled 2019 NASA Teams Engaging Affiliated Museums and Informal Institutions (TEAM II) solicits proposals from Informal Education Institutions (IEIs) for informal education opportunities in support of NASA’s Office of STEM Engagement, collaborating closely with the Mission Directorates, and in cooperation with NASA Headquarters’ Office of Communications and Office of Diversity and Equal Opportunity.

Working in collaboration with other Federal agencies, NASA supports evidence-based, effective, NASA-unique activities that increase STEM capabilities at formal and informal educational institutions and organizations by incorporating content based on NASA’s missions. Through this solicitation, NASA seeks to enhance the ability of IEIs and partners to deliver and participate in NASA-based activities, and increase the capacity of institutions to utilize NASA resources and to provide students the opportunity to contribute to NASA’s mission.

This NRA solicits proposals for submitters to uniquely perform NASA education or research for inquiry- or experiential-based educational opportunities that directly align with major NASA missions for students and the public. The proposed projects shall utilize partnerships with major networks of other IEIs, youth-serving organizations, libraries, and/or K-12 schools along with commercial entities, higher education institutions, and/or other agencies that support Federal STEM education goals.

Subject to Congressional appropriation of sufficient funds in Fiscal Years 2020-2021, and also pending NASA’s receipt of proposals of adequate merit, NASA currently plans to select between one (1) and eight (8) proposals for award. NASA reserves the right to make a full or partial selection of any proposal. Successful proposals typically will be funded as cooperative agreements. An individual award will not exceed $1,000,000. The lowest amount that may be proposed is $500,000. All proposals submitted shall have a performance period with a minimum of two years and a maximum of four years.
**SUMMARY OF KEY INFORMATION**

<table>
<thead>
<tr>
<th>Description</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of new awards pending adequate proposals of merit</td>
<td>One to eight</td>
</tr>
<tr>
<td>Duration of awards</td>
<td>Two to four years</td>
</tr>
<tr>
<td>Award Type</td>
<td>Cooperative Agreement</td>
</tr>
<tr>
<td>Eligibility</td>
<td>See Section 3 of this NRA</td>
</tr>
<tr>
<td>Principal Investigator Requirement</td>
<td>See Section 3.3 of this NRA</td>
</tr>
<tr>
<td>Technical Content Limitation</td>
<td>NASA-themed space exploration. See Section 1.3.1.1.</td>
</tr>
<tr>
<td>Pre-proposal Telecon (Optional)</td>
<td>May 15, 2019 3:00 – 5:00 PM Eastern Time. To join: 888-323-4924 passcode 3876248</td>
</tr>
<tr>
<td>Due date for Notice of Intent to propose (NOI)</td>
<td>May 22, 2019 (DATE SUBJECT TO CHANGE); 11:59 PM Eastern Time</td>
</tr>
<tr>
<td>Due date for proposals</td>
<td>August 13, 2019 (DATE SUBJECT TO CHANGE); 11:59 PM Eastern Time</td>
</tr>
<tr>
<td>Page limit for the central Scientific-Educational-Management section of the proposal</td>
<td>15 pp; see the NASA Guidebook for Proposers at <a href="https://www.hq.nasa.gov/office/procurement/nraguidebook/">https://www.hq.nasa.gov/office/procurement/nraguidebook/</a></td>
</tr>
<tr>
<td>Detailed instructions for the preparation and submission of proposals</td>
<td>See the NASA Guidebook for Proposers.</td>
</tr>
<tr>
<td>Submission medium</td>
<td>Electronic proposal submission is required via NSPIRES or grants.gov; no hard copies will be accepted. See the NASA Guidebook for Proposers.</td>
</tr>
<tr>
<td>Web site for submission of proposal via NSPIRES</td>
<td><a href="http://nspires.nasaprs.com/">http://nspires.nasaprs.com/</a> (help desk is available at <a href="mailto:nspires-help@nasaprs.com">nspires-help@nasaprs.com</a> or (202) 479-9376 from 8:00 am to 6:00 pm Eastern Time, excluding Federal holidays).</td>
</tr>
<tr>
<td>Web site for submission of proposal via grants.gov</td>
<td><a href="http://grants.gov">http://grants.gov</a> (Contact Center is available by email at <a href="mailto:support@grants.gov">support@grants.gov</a>, or by calling 1-800-518-4726 and via website at <a href="https://grants-portal.psc.gov">https://grants-portal.psc.gov</a>.)</td>
</tr>
</tbody>
</table>
| Selection Official                                                          | Diane DeTroye  
Next Gen STEM Manager  
Office of STEM Engagement  
NASA Headquarters  
Washington, DC 20546  |
| Technical Officer                                                           | Beverly Girten  
Director of Institutional Engagement  
Office of STEM Engagement  
NASA Headquarters  
Washington, DC 20546  |
| NASA point of contact for this project                                      | Leslie L. Lowes  
NASA TEAM II Co Manager  
Jet Propulsion Laboratory  
California Institute of Technology  
Pasadena, CA  
TEAMII@jpl.nasa.gov |
1. FUNDING OPPORTUNITY DESCRIPTION

1.1 Background

This NASA Research Announcement (NRA) entitled NASA Teams Engaging Affiliated Museums and Informal Institutions (TEAM II) is a targeted solicitation, stemming from its foundation and precursor, the Competitive Program for Science Museums, Planetariums, and NASA Visitor Centers (CP4SMPVC). The 2019 TEAM II targets a limited number of topics of specific interest to NASA, and places a stronger emphasis on recipients’ partnering and networking in order to increase the impact of awards in the informal education community.

TEAM II, and its precursor CP4SMPVC, are authorized by Public Law (PL) 109-155 SEC. 616.

MUSEUMS:

*The Administrator may provide grants to, and enter into cooperative agreements with, museums and planetariums to enable them to enhance programs related to space exploration, aeronautics, space science, earth science, or microgravity.*


*To the extent possible, NASA is urged to use education funds to address the educational needs of women, minorities, and other historically underrepresented groups.*

The American Innovation and Competitiveness Act (PL 114-329) allows the use of funds to foster on-going partnerships between institutions involved in informal STEM learning, institutions of higher education, and education research centers, as well as the development and availability of informal STEM education activities and educational materials. (Ref: [https://www.congress.gov/bill/114th-congress/senate-bill/3084](https://www.congress.gov/bill/114th-congress/senate-bill/3084))

A key strategy for achieving effective partnerships is continued participation in the Administration’s Committee on STEM Education (CoSTEM). Through that committee, NASA works closely with all relevant stakeholders across Federal agencies. NASA’s Office of STEM Engagement focuses on national STEM areas of need and ensures that NASA’s STEM engagement investments are unique and non-duplicative.

The mandate of the NASA TEAM II program aligns with the CoSTEM federal strategy for 2018-2022, which is based on a vision for a future where all Americans will have lifelong access to high-quality STEM education and the United States will be the global leader in STEM literacy, innovation, and employment. In particular, the NASA TEAM II program supports the federal strategy goal to increase diversity, equity, and inclusion in STEM, and the federal strategy pathways to develop and enrich strategic partnerships (by fostering STEM ecosystems that unite communities), and to engage students where disciplines converge (by encouraging transdisciplinary learning).

1.2 NASA Strategic Plan and Relevance to Education

The NASA 2018 Strategic Plan includes the focus on the development of STEM disciplines in accomplishing NASA’s vision and mission. NASA contributes to national efforts for achieving excellence in STEM education through a comprehensive education portfolio implemented by the Office of STEM Engagement, the Mission Directorates, and the NASA Centers located across the country. NASA will continue the Agency’s tradition of investing in the Nation’s education programs and supporting the country’s educators who play a key role in preparing, inspiring, exciting, encouraging, and nurturing the young minds of today who will manage and lead the Nation’s laboratories and research centers of tomorrow.

The NASA Strategic Goal and Objective relevant to education and STEM engagement are outlined by the 2018 NASA Strategic Plan (https://www.nasa.gov/sites/default/files/atoms/files/nasa_2018_strategic_plan.pdf):

**Strategic Goal 3**: Address national challenges and catalyze economic growth.

**Strategic Objective 3.3**: Inspire, engage, educate, and employ the next generation of explorers through NASA-unique Science, Technology, Engineering and Mathematics learning opportunities.

NASA has a long history of engaging the public and students in its mission through educational and outreach activities and programs. NASA’s endeavors in education and public outreach began early on, driven by the language in Section 203 (a) (3) of the Space Act, “to provide for the widest practicable and appropriate dissemination of information concerning its activities and the results thereof, and to enhance public understanding of, and participation in, the Nation’s space program in accordance with the NASA Strategic Plan.” NASA’s education and outreach functions aim to inspire and engage the public and students, each playing a critical role in increasing public knowledge of NASA’s work and fostering an understanding and appreciation of the value of STEM, and enhancing opportunities to teach and learn.

NASA is uniquely positioned to make valuable contributions in the federal sector by providing mission driven opportunities toward enhancing our nation’s STEM literacy, and by helping to build a vibrant and diverse next generation STEM workforce. NASA’s work in STEM Engagement is focused on ultimately serving students. It is recognized that providing support and resources to educators and educational institutions are vital vehicles through which to effectively engage students.

At the core of NASA’s efforts in STEM Engagement are the following cross-cutting design and operational principles. These principles guide the STEM engagement community in the planning and execution of work in direct support of achieving the objectives.

- Mission-driven authentic STEM experiences
- Evidence-based practices
- Diversity and inclusion
- Scalability through partnerships and networks

TEAM II supports the following NASA STEM Engagement Objectives and Strategies. In particular, NASA seeks to leverage collaborations with informal education organizations, and
provide competitive opportunities for informal educational institutions and networks to reach and engage students.

<table>
<thead>
<tr>
<th>STEM Engagement Objectives</th>
<th>STEM Engagement Strategies</th>
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<tbody>
<tr>
<td><strong>1.0 Enabling Contributions to NASA’s Work</strong></td>
<td></td>
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<tr>
<td>1.1 Students contribute to NASA’s endeavors in exploration and discovery.</td>
<td>1.1c Increase visibility of and accessibility to NASA’s portfolio of STEM engagement opportunity and activities to broaden participation through the use of innovative media tools and platforms.</td>
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<tr>
<td><strong>2.0 Building a Diverse, Skilled Future Workforce</strong></td>
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<tr>
<td>2.1 A broad and diverse set of students are attracted to STEM through NASA opportunities.</td>
<td>2.1a Provide evidence-based opportunities to engage youth in NASA-unique learning experiences beyond the classroom, including those specifically designed to attract students from underrepresented and underserved communities. 2.1b Enhance student STEM experiences in schools, universities, and other educational venues, using evidence-based strategies, NASA STEM practitioners, learning opportunities, content, and resources.</td>
</tr>
<tr>
<td>2.2 Students, including those from underrepresented and underserved communities, explore and pursue STEM pathways through authentic learning experiences and research opportunities and NASA’s people and work.</td>
<td>2.2a Create and deploy authentic learning experiences and research opportunities for students to bolster their STEM studies and stimulate further interest and achievement.</td>
</tr>
<tr>
<td>2.4 Strategic partnerships with industry, academia, non-profit organizations and educational institutions enhance and extend the impact of NASA’s efforts in STEM engagement.</td>
<td>2.4a Engage in partnerships, broker alliances and leverage national networks to create and deploy initiatives that magnify the impact of NASA STEM engagement investments.</td>
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<tr>
<td><strong>3.0 Strengthening Understanding of STEM through Powerful Connections to NASA</strong></td>
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<tr>
<td>3.1 Youth are introduced to STEM concepts and content through readily available NASA STEM engagement resources.</td>
<td>3.1a Leverage collaborations with informal education organizations, and with regional and national consortia and networks, to deliver NASA STEM engagement content. 3.1b Provide competitive opportunities for informal educational institutions and networks to reach and engage students.</td>
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<tr>
<td>3.2 Students gain exposure to STEM careers through direct and virtual experiences with NASA’s people and work.</td>
<td>3.2a Enable student understanding of relevant STEM careers through providing direct and distance learning experiences with NASA’s missions, people, and facilities.</td>
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**NASA Office of STEM Engagement (OSTEM) Performance and Evaluation Strategy**

In 2018, the Office of STEM Engagement (OSTEM) developed a new comprehensive OSTEM performance and evaluation strategy in alignment with the NASA 2018 Strategic Plan and in support of the CoSTEM federal strategy for STEM education for 2018-2022. The performance and evaluation strategy includes:

- Internal and external performance measures that track progress toward the Agency’s strategic objectives and program goals
- Strategic assessment questions, success criteria and data collection processes, and tools supporting agency evaluation evidence-building capacity
• Processes for structuring independent studies conducted by third party vendors and for program-level evidence-based decision-making

NASA identifies evidence of effective practices in its STEM Engagement investments through program evaluation. Evidence is a key criterion in NASA’s competitive processes for allocating resources, ensuring that the most effective STEM engagement activities are supported. Program evaluations are planned studies using research methods to collect and analyze data to assess to what extent activities/programs are being implemented and what, if any, impact can be measured. Evaluations answer specific questions about performance and may focus on assessing activity/program process and outcomes. Annually, NASA OSTEM will generate a body of evidence to assess progress of its investments in achieving performance goals and annual performance indicators, make evidence-based programmatic decisions and establish future performance measures.

NASA’s multi-year Performance Goals (PGs) and Annual Performance Indicators (APIs) in alignment to the NASA 2018 Strategic Plan are outlined in the NASA Volume of Integrated Performance (VIPer) report found on the NASA Budget website (https://www.nasa.gov/news/budget/index.html). NASA TEAM II supports the following NASA OSTEM FY 2019 performance goals in alignment with NASA Strategic Objective 3.3.

### FY 2019 OSTEM Performance Goals

<table>
<thead>
<tr>
<th>3.3.3: Provide opportunities for students to engage with NASA’s aeronautics, space, and science people, content, and facilities in support of a diverse future NASA and aerospace industry workforce.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.3.4: Enhance the effectiveness of education investments using performance assessment and evaluation-driven processes.</td>
</tr>
<tr>
<td>3.3.5: Provide opportunities for students to contribute to NASA’s aeronautics, space, and science missions and work in exploration and discovery.</td>
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### 1.3 Overview of Opportunity

#### 1.3.1. NASA TEAM II Goals and Objectives

NASA’s Office of STEM Engagement, collaborating closely with the Mission Directorates, and also in cooperation with NASA Headquarters’ Office of Communications and Office of Diversity and Equal Opportunity, solicits proposals led by Informal Education Institutions (IEIs) to provide inquiry- or experiential-based educational opportunities with direct alignment with major NASA missions for students and the public. These opportunities shall utilize partnerships with major networks of other IEIs, youth-serving organizations, libraries, and/or K-12 schools along with commercial entities, higher education institutions, and/or other agencies that support Federal STEM education goals. NASA’s work in STEM Engagement is focused on ultimately serving students. It is recognized that providing support and resources to educators and educational institutions are vital vehicles through which to effectively engage students. Through this solicitation, NASA seeks to enhance the ability of IEIs and partners to deliver and participate in NASA-based activities, and to increase the capacity of institutions to utilize NASA resources and to provide students with the opportunity to contribute to NASA’s mission using innovative tools and platforms. In particular, this solicitation seeks projects that feature the most current NASA
space exploration, missions, engineering, and technologies to support NASA STEM Engagement objectives, strategies, and outcomes.

NASA TEAM II seeks to provide authentic STEM engagement opportunities for students and for their learning support systems of informal and formal educators that also support NASA STEM Engagement Core Principles, Objectives, and Strategies:

- Provide STEM engagement activities aligned with NASA mission-driven needs and priorities;
- Leverage NASA missions, content, people, and facilities to provide experiential authentic STEM opportunities that encourage innovation, critical thinking, and problem-solving skills;
- Use or develop evidenced-based educational strategies in designing and implementing the project and address state and local needs;
- Provide a measurable impact on learner interest in and positive attitudes towards STEM topics and improve self-perception of the learner’s ability to participate in STEM;
- Enhance diversity and inclusion by better serving groups historically underrepresented and underserved in STEM fields; and
- Utilize partnerships and regional and national networks of STEM- and STEM education-related IEIs to magnify and maximize reach and impact;

For this solicitation, informal education projects shall target STEM engagement for youth (particularly those of upper elementary and middle school age, in grades 4-8), and their support systems of families and informal and formal educators and institutions.

**Examples of Eligible Projects (including but not limited to)**

Authentic NASA-unique mission-based STEM learning experiences for students (see Appendix A Authentic STEM Experience Framework); hands-on learning opportunities for youth and students; maker projects for middle and high school; mission-driven design challenges for high school students; activities that are culturally relevant to and that target populations such as women, ethnic minorities, rural populations, and persons with disabilities; high-quality, creative, and high-impact NASA STEM engagement programs for students, educators, and educational institutions; multi-audience or generational STEM programming for educators, students, youth, parents, and the general public; strategically driven large-scale exhibits (permanent, traveling, or virtual) that are designed specifically to support and enhance learning for students, educators, and educational institutions; and professional development activities and/or NASA-related resources for informal and formal education providers that support activities within the partnership/networks; virtual learning experiences; and data visualization technologies such as planetariums or global display systems for STEM programming and student learning.

1.3.1.1. Engagement with NASA Mission-Driven Needs

A key feature that distinguishes this NRA from informal, STEM engagement, educator professional development or education sponsored by other Federal agencies is that in addition to meeting criteria for technical merit and affordable and realistic costs, proposal content shall be directly tied to and amplify NASA’s themes for its major work and missions during the project’s proposed period of performance.

The only eligible technical subject areas for this solicitation is NASA-themed space exploration in combination with the themes/priorities described immediately below. Proposals focused exclusively on non-NASA themes or other NASA themes will be disqualified from award consideration.

Specifically for this NRA, NASA’s Mission Directorates (Human Exploration and Operations Mission Directorate and Space Technology Mission Directorate) and other offices (see Appendix B) that are cooperating with this NRA have identified content and engagement/educational priorities aligned to the NASA Strategic Plan, based on upcoming major NASA activities and missions during the next two to four years. Information on the science and technology objectives of the NASA Mission Directorates can be found in the NASA Strategic Plan at (https://www.nasa.gov/sites/default/files/atoms/files/nasa_2018_strategic_plan.pdf).

Proposals shall explicitly address the NRA’s theme/priority described immediately below.

TEAM II NRA Theme/Priority: Moon to Mars

NASA’s science, technology and human exploration activities touch every aspect of our lives here on Earth and we want to extend our presence to the farthest corners of the universe. In doing so, we will maintain America’s leadership in space.

NASA’s Apollo Program was a stunning demonstration of the United States’ strength of will and its economic, political and technological power – a feat that inspired generations of young people. It was fuel to the fire of the American consciousness that brought on a revolution, not only in science and technology, but also in our passion for exploration and discovery.

Just as Apollo inspired a generation 50 years ago, NASA continues to inspire with feats of science and exploration today. If we bring together the capabilities and resources of our international and commercial partners to take us forward to the Moon and on to Mars, we will demonstrate to people around the world the power of a unified purpose. It will serve as an unparalleled and inspiring example of what humanity can do when it comes together to achieve a common goal for the common good.

- NASA is going forward to the Moon to stay, and on to Mars.
- Going forward to the Moon is part of a larger, sustainable exploration campaign with international and commercial partners.
- Our partnerships will unify nations, create new economic opportunities and inspire generations.
- Continuing our work in low-Earth orbit and leading a new era of deep spaceflight to the Moon and Mars, NASA will extend human exploration across these three unique destinations.
• American leadership will drive an open, sustainable and agile architecture, with international and commercial partners, to get astronauts back on the lunar surface as quickly as possible.
• Beginning with a series of small commercial delivery missions to the Moon as early as 2019, we will use new landers, robots and eventually humans by 2024 to conduct science across the entire lunar surface.
• NASA’s next big rocket, the Space Launch System, along with the Orion spacecraft and the mobile, lunar command module, Gateway, will be our backbone for deep space exploration.
• NASA’s Gateway will be built with international and commercial partners and provide astronauts access to more parts of the lunar surface than ever before.
• This will not be flags and footprints, but an American-led investment to establish a sustainable human presence on and around the Moon.
• Building on our successes in low-Earth orbit, we are combining the expertise of the NASA workforce with our commercial and international partners to develop the exploration capabilities we need.
• NASA’s science, technology and human exploration activities touch every aspect of our lives here on Earth.

For further information, visit NASA’s Moon to Mars webpage at: https://www.nasa.gov/specials/moon2mars/)

The NASA Centers and the Jet Propulsion Laboratory (JPL) are responsible for implementing many of the plans, programs, missions, and activities that the Mission Directorates have established. The primary mission responsibilities assigned to that Center or to JPL define the work areas for which each Center or JPL is responsible.

Clarifications and additional details are available through the NASA Directorates points-of-contact listed in Appendix C of this solicitation.

1.3.1.2. Leverage NASA People, Resources, and Facilities

To facilitate the use of NASA’s assets and help provide mission-driven, meaningful engagement in NASA content and missions, projects are required to propose partnerships with relevant NASA entities (directorates, offices, centers (excluding JPL), etc.) and/or NASA employees and support contractors. NASA seeks to use these projects to help cultivate and develop opportunities to position NASA’s STEM workforce to actively participate in the Agency’s STEM engagement activities, and serve as mentors and role models. Further, NASA seeks to enable student understanding of relevant STEM careers through providing direct and distance learning experiences with NASA’s missions, people and facilities.

Projects are strongly encouraged to use NASA assets including, but not limited to, scientific data, visualizations, personnel, educational materials, and NASA owned patents and/or computer software. If a submitter proposes the development of a new asset related to NASA content is proposed, the submitter shall explain why an existing asset cannot be used instead. If a submitter intends to use any NASA-owned patents and/or computer software, any such use of NASA technology requires a Patent License Agreement or Software Usage Agreement (SUA) granted from NASA.
NASA seeks to increase the visibility of and accessibility to NASA’s portfolio of STEM engagement opportunities and activities to broaden participation through the use of innovative media tools and platforms. To the extent practical, proposers shall use or repurpose resources, products, and evaluation results from previous TEAM II/CP4SMPVC activities, which can be found at http://informal.jpl.nasa.gov/museum/CP4SMP.

Many NASA Education resources may be found online:

NASA Education YouTube Channel
https://www.youtube.com/channel/UC9SM7V7J1pAhPabOUST01fw

NASA STEM Engagement Search Educational Resources and Opportunities
https://nasa.gov/education/materials

A-Z List of Websites
https://www.nasa.gov/audience/foreducators/Alpha_index.html

Educator Resource Centers for Teaching Materials and Workshops
https://www.nasa.gov/offices/education/programs/national/ercn/home/index.html

Note: This NRA does not seek proposals designed to primarily advance formal education, such as but not limited to, providing scholarships or tuition to high school or college students or sabbatical pay for higher education faculty or formal certificate attainment.

Projects are expected to integrate the NASA Museum Alliance into their project, and proposers shall design the project so that members of the Museum Alliance benefit equally as much as other networks from proposed product or services. (Further expansion to other appropriate networks is welcomed.) Proposers shall describe this integration and how it will benefit student learners and their support systems via Museum Alliance member institutions.

The Museum Alliance is managed by JPL and serves as a resource for professional development about current NASA mission activities, a venue for amplifying member organizations' NASA-related exhibits and programs, a source of current NASA news and upcoming events of particular interest to the informal education community, and the home of a curated collection of resources such as activities, lesson plans, videos, images, animations, and virtual reality files. The Museum Alliance also facilitates connections between, and services for, members with similar needs and activities related to NASA, as well as for elucidating best practices among members.

Over 2000 informal educators at over 1000 (US) organizations are Museum Alliance members. A third of the institutional members are planetariums/observatories, another third are museums/science centers. Of the remaining third, half are libraries and the rest are youth serving orgs, Challenger Centers, parks, zoos, camps and other informal learning institutions. A current map and list of members can be found at https://informal.jpl.nasa.gov/museum/Connect.

Note: Proposers shall use the above list of services as a basis for addressing the utilization of the Museum Alliance in their proposal. Due to potential conflict of interest situations, proposers shall not contact Museum Alliance personnel regarding the utilization of these services or any potential collaboration related to a TEAM II proposal. Proposers are encouraged to join and participate in ongoing Museum Alliance activities that are not proposal-related. (See Section 3.4 Interactions, Collaborations, and Partnerships with NASA.)
NASA seeks proposals that build upon existing NASA programs, projects, and/or assets through alliances, partnerships, and networks. Further, proposals are encouraged to support continuity of participant experience by including a plan to direct participants to other existing NASA educational opportunities and affiliates (for example the National Space Grant College and Fellowship Program (Space Grant), Established Program to Stimulate Competitive Research (EPSCoR), or other NASA-funded research at universities).

1.3.1.3. Evidenced-Based Educational Strategies and Substantiated Needs

NASA seeks projects that provide evidenced-based opportunities to engage youth in NASA-unique learning experiences beyond the classroom. Projects shall use evidence-based strategies that rely on verifiable data and information that has been gathered using the standards of professional research and evaluation organizations. (An example reference for the connection of out-of-school learning to science learning is The relationship between students’ connections to out-of-school experiences and factors associated with science learning: http://adsabs.harvard.edu/abs/2011IJSEd..33.1625T. Another example reference for improving the quality of out-of-school time programs through professional development is Leap of Faith: A Literature Review on the Effects of Professional Development on Program Quality and Youth Outcomes: https://files.eric.ed.gov/fulltext/ED539187.pdf.)

Proposals shall address substantiated (e.g., through an existing needs assessment or other evidence) national or regional educational needs or challenges and offer solutions with potential for significant impact.

Youth enrichment and career-oriented activities shall be developmentally appropriate, that is, suitable for the youths’ age and stage of learning development. Where appropriate, projects shall align with the Practices, Crosscutting Concepts and Core Ideas of the Next Generation Science Standards: https://www.nextgenscience.org/get-to-know.

1.3.1.4. Evaluation and Dissemination Plans; Measurable Impact on Learner Interest

NASA identifies evidence of effective practices in STEM education and engagement through program evaluation. Evidence is a key criterion in NASA’s competitive processes for allocating resources, ensuring that the most effective STEM education and engagement activities are supported. Program evaluations are planned studies using research methods to collect and analyze data to assess to what extent activities/programs are being implemented and what, if any, impact can be measured. Evaluations answer specific questions about performance and may focus on assessing activity/program process and outcomes.

All projects shall conduct an independent evaluation in order to improve and assess the effectiveness of strategies used in the project. Evaluation plans shall include measurement of the project’s effectiveness in meeting the project goals and objectives as well as the NASA and federal strategic objectives. Proposers should follow best practices for evaluating the type of project proposed, and establish an evaluation plan that is appropriate to the proposed project.

Proposed TEAM II program evaluation shall follow generally-accepted professional standards for evaluative research. Evaluations are evidence-based, meaning that they are based on verifiable data and information that have been gathered using the standards of professional research and evaluation organizations. Such data can be both qualitative and quantitative. A wide variety of evaluation designs may be utilized, as well as a variety of data collection methods,
such as key informant interviews, surveys, direct observation, or focus group discussions. Regardless, such data shall pass the tests of reliability and validity, which are different for qualitative and quantitative data.

Proposers are strongly encouraged to consider their project and evaluation impacts, outcomes, and metrics in terms of the evidence and categories of informal science education impacts as stated in the National Science Foundation (NSF) report *Framework for Evaluating Impacts of Informal Science Education Projects.*

The impact of the proposed project on the target audiences shall be measurable during the award period, and preferably be measured over time throughout the life of the project. Proposals shall describe potential impacts of the project beyond the award period. During the award period, the lead institution is required to report both outputs and outcomes for the project.

Per the Federal Strategy for STEM education, proposers shall be consistent with any common metrics and clear mechanisms for reporting the participation rates of underrepresented groups in programs and activities.

Proposers shall include specific and sufficient resources dedicated to evaluation activities in their detailed work plan, project budget, and schedule of completion. **A minimum of 8% of the total project budget is required to support evaluation activities.** Project evaluation shall be handled by independent evaluator who may be a third-party or, if a current employee of the applicant organization, shall be truly independent from the policy, operations, and management functions of the proposed project, i.e. reporting responsibility independent of the proposed project. The evaluator should develop a comprehensive evaluation plan, develop or identify tools or processes or data collection, carry out evaluation tasks, conduct analysis, and provide formative and summative feedback to the project leadership throughout the life cycle of the award.

Proposers shall describe how the products generated during the project and the evaluation results will be shared with other individuals and organizations, including the NSF’s informalscience.org. Other dissemination suggestions can be found in the *Principal Investigator’s Guide: Managing Evaluation in Informal STEM Education Projects* (pages 57-66). Project key personnel and/or participants are strongly encouraged to write and submit journal and proceedings articles and to participate in NASA-sponsored and other professional conferences.

See Appendix D for definitions and relationships related to performance measurement and evaluation. Appendix E includes a non-exhaustive list of recent literature pertaining to evaluation of informal science education projects.

1.3.1.5. Reach to Underserved Groups

NASA is interested in proposed projects that attract and engage students who are historically underrepresented and underserved in STEM fields, particularly those in rural-underserved areas and/or women and girls, and persons with disabilities. (See, for example, the reports *America after 3pm: The growing importance of afterschool in rural communities* at [http://www.afterschoolalliance.org/AA3PM/Afterschool_in_Rural_Communities.pdf](http://www.afterschoolalliance.org/AA3PM/Afterschool_in_Rural_Communities.pdf), and How to Recruit Women and Girls to the STEM Classroom, from Technology and Engineering Teacher 71(3).) Institutions with capabilities to address such needs are welcome as eligible partners or
lead institutions. Proposed activities for these audiences should include culturally-relevant content.

Partnerships with higher education institutions that facilitate underserved individuals’ entrance and pursuit of the fields of engineering and space sciences are sought. For example, NASA has several existing programs including:

- NASA Minority University Research and Education Project
  [http://www.nasa.gov/offices/education/programs/national/murep/home/index.html](http://www.nasa.gov/offices/education/programs/national/murep/home/index.html)
- National Space Grant College and Fellowship Program
  [http://www.nasa.gov/offices/education/programs/national/spacegrant/home/index.html](http://www.nasa.gov/offices/education/programs/national/spacegrant/home/index.html)

(For a list of institutions of higher education enrolling populations with significant percentages of undergraduate minority students, see [https://www2.ed.gov/about/offices/list/ocr/edlite-minorityinst.html](https://www2.ed.gov/about/offices/list/ocr/edlite-minorityinst.html).)

### 1.3.1.6. Partnerships and Regional and National Networks

National interest in the vital importance of STEM education has stimulated numerous state and regionally based organizations that are driving critical connections between industry, universities, non-profits and government in formal K–12 and out-of-school-time learning environments. In support of the national focus on improving the STEM Ecosystem, NASA requires proposers to utilize one or more regional or national networks, consortia, or associations of STEM- and STEM education-related IEIs to magnify and maximize the reach and impact of the proposed work. The proposer shall either: be the manager of and have leadership responsibility for the network, or shall partner with a network. A minimum of 30 network members shall be directly served by the project. It is acceptable for a proposer to host such networks themselves.

These networks include, but are not limited to, organizations that are devoted to:

- Providing youth and students the opportunity to develop STEM skills in a variety of STEM learning environments;
- Making linkages for improving STEM education across a variety of learning environments;
- Supporting the development of STEM skills, student selection and persistence in STEM careers;
- Sharing and dissemination of STEM resources;
- Connecting audiences with current science in their region; and/or
- Providing a community of practice for the network

National networks are preferred, however, regional (non-local) networks are acceptable. For the purposes of this NRA, regional refers to a large geographic area of considerable extent, such as one that encompasses multiple states.

Partnerships with regional or national public, academic, and private/commercial institutions and foundations are encouraged to further enhance the reach of the proposed project. Regional project stakeholders bring expertise necessary to identify common areas of concern and to collaborate on strategies that leverage NASA and other Federal assets. Partnerships with K-12
schools and/or youth-serving organizations and/or higher education institutions to support inquiry-based education are encouraged.

Statements of commitment from partners are required as detailed in Appendix F Statements of Commitment and Letters of Support.

NASA also enters into Space Act Agreements (SAA) with commercial, educational, and non-profit organizations using NASA’s other transaction authority for mutually beneficial reasons, including inspiring and engaging youth to experience STEM topics, particularly for those youth who are underrepresented in STEM fields. Proposals submitted in response to this NRA involving SAAs cannot duplicate the content and outcomes of existing SAAs. A searchable list of SAAs can be found at https://www.nasa.gov/partnerships/about.html.

1.4 Guidebook for Proposers

All policies and procedures for the preparation and submission of proposals, as well as those for NASA’s review and selection of proposals for funding, are presented in a separate document entitled Guidebook for Proposers Responding to a NASA Funding Announcement (NFA) (the Guidebook for Proposers) that is located at https://www.hq.nasa.gov/office/procurement/nraguidebook/. The 2018 Guidebook for Proposers is hereby incorporated into this NRA by reference, and proposers are responsible for understanding and complying with Guidebook for Proposers’ procedures before preparing and submitting their proposals. Unless otherwise noted, proposals that do not conform to the standards in the Guidebook for Proposers may be deemed noncompliant and rejected without peer review. The chapters and appendices in the Guidebook for Proposers provide supplemental information about the entire NRA process, including NASA policies for the solicitation of proposals; guidelines for writing complete and effective proposals; NASA policies and procedures for the review and selection of proposals; as well as for issuing and managing the awards to the institutions whose proposals are selected. Note that NASA’s policy for handling proposals involving non-U.S. participants is provided in Appendix A of the Guidebook for Proposers.

1.5 NASA’s Safety Policy

All proposals shall take into consideration NASA’s priority emphasis on safety. Safety is the freedom from those conditions that can cause death, injury, occupational illness, damage to or loss of equipment or property, or damage to the environment. NASA’s safety priority is to protect: (1) the public, (2) astronauts and pilots, (3) the NASA workforce (including employees working under NASA award instruments), and (4) high-value equipment and property.

Proposers shall have a written safety policy. The NASA Grant and Cooperative Agreement Manual (GCAM) states that grant recipients:

(a) shall act responsibly in matters of safety and shall take all reasonable safety measures in performing under this award. The recipient shall comply with all applicable Federal, state, and local laws relating to safety. The recipient shall maintain a record of, and will notify the NASA Grant Officer immediately (within one workday) of any accident involving death, disabling injury or substantial loss of property in performing this award. The recipient will immediately
(within one workday) advise NASA of hazards that come to its attention as a result of the work performed.

(b) Where the work under this award involves flight hardware, the hazardous aspects, if any, of such hardware will be identified, in writing, by the recipient. Compliance with this term and condition by subawardees/subcontractors shall be the responsibility of the recipient.

The following NASA procedural requirement applies to NASA entities and others including recipients of grants and cooperative agreements only to the extent specified or referenced in applicable contracts, grants, or agreements.

NPR 8715.3D: NASA General Safety Program Requirements:
https://nodis3.gsfc.nasa.gov/displayDir.cfm?Internal_ID=N_PR_8715_003D
Responsible Office: Office of Safety and Mission Assurance

For additional information on the NASA Safety and Mission Assurance Program see:
http://sma.nasa.gov

1.6 Data Management Plan

All proposals submitted under this Funding Announcement are required to submit a Data Management Plan (DMP), in accordance with the NASA Plan for Increasing Access to the Results of Scientific Research (http://www.nasa.gov/sites/default/files/files/NASA_Data_Plan.pdf). That plan must include:

- Specific data requirements and expectations;
- An example DMP or outline for the specific type of data likely to result from the funded projects; or
- A statement that a DMP is not required because of the nature of the activity (e.g., no data or proprietary or personally identifiable data are expected).

See SARA Q&A at http://science.nasa.gov/researchers/sara/faqs/dmp-faq-roses/ for more information on this plan.

If research will not be conducted, or if research will be conducted but the proposer believes a DMP is not required because of the nature of the activity, then a statement in the Program Specific Data (PSD) Form (see Appendix M) should be included to that effect.

2. AWARD INFORMATION

2.1 Award Type and Availability of Funds for Awards

The award instrument that NASA uses under this NRA is cooperative agreements between a lead NASA Center and the successful applicant, following the policies in Appendix A of the Guidebook for Proposers. Cooperative agreements will be subject to the provisions of 2 CFR 1800, the NASA Grant and Cooperative Agreement Manual (GCAM), and the Guidebook for Proposers (all found at https://prod.nais.nasa.gov/pub/pub_library/srba/index.html). If there is a conflict between the content of this NRA and the Guidebook for Proposers, this NRA takes precedence.

1 In cases where a proposer’s project supports a Mission Directorate, but is not directly related to work being performed at any NASA Center, NASA Headquarters may serve as the Lead NASA Center.
precedence. Prospective proposers to this NRA are advised that in general, funds are not available to award all solicited activities at the time of this NRA release. The Government’s obligation to make awards is contingent upon the availability of sufficient appropriated funds from which payment can be made and the receipt of proposals that NASA determines are acceptable for award under this NRA. Further, continuation of the awards in the second and subsequent years (if applicable) will be contingent on the availability of appropriated funds, progress of the project, and continued relevance of the project to NASA programs.

Subject to Congressional appropriation of sufficient funds in Fiscal Years 2020-2021, and also pending NASA’s receipt of proposals of adequate merit, NASA expects to select between one (1) and eight (8) proposals for award. NASA reserves the right to make a full or partial selection of any proposal. Successful proposals will be funded as cooperative agreements based on the requirements of the NRA. An individual award will not exceed $1,000,000. The lowest amount that may be proposed is $500,000, since the accountability, reporting, and evaluation requirements for TEAM II make it unlikely that a viable project could be accomplished for less than $500,000. Thus, proposals budgeted for less than this amount are unlikely to advance to external peer review.

Prospective proposers are advised that at the time this NRA is released, funds beyond FY 2019 are generally not available for awards for all of the solicited program elements.

2.2 Award Period of Performance

All proposals submitted shall have a performance period with a minimum of two years and a maximum of four years. Also, it should be noted a proposed project’s start date is not the same as its award date.

Any proposed period of performance shall be justified in the proposal. The appropriateness of the proposed period of performance will be evaluated by peer review. NASA reserves the right to select proposals for shorter award durations than proposed.

2.3 Cancellation of NASA Research Announcement (NRA)

NASA reserves the right not to make any awards under this NRA and/or to cancel this NRA at any time prior to award. If this occurs, NASA assumes no liability (including reimbursement of proposal costs) for canceling the NRA or for any entity’s failure to receive an actual notice of cancellation.

2.4 Schedule for Awards

Every effort will be made to announce selections within six (6) months from the proposal submission deadline. Selection notifications will be communicated electronically via NSPIRES to the institution’s Authorized Organization Representative (AOR) and Principal Investigator (PI). NSPIRES sends a decision notice via email requesting the PI or AOR to log into NSPIRES. This decision notice email means that NSPIRES has been updated to indicate the status of a proposal in NASA’s selection review process. When a PI or AOR logs into NSPIRES, the following are examples of the types of decisions possible:

- A “declined” status means that: 1) NASA’s review of the proposal is concluded; and 2) no NASA funds are available to support the proposed project.
• A “selected” or “selectable (pending)” status means that the proposal’s review continues and the proposal has NOT received an award. A “selected” or “selectable (pending)” proposal status in NSPIRES is NOT a commitment that a proposal has or will receive an award by the NSSC nor that any funds have been or will be transferred from NASA Headquarters to a NASA Center.

Proposers are strongly cautioned that only a NASA Grant Officer may make commitments, obligations or awards on behalf NASA or authorize the expenditure of funds. A commitment by NASA to fund an award is only made through a grant or cooperative agreement signed by a NASA Grant Officer. A PI or organization that makes financial and/or personnel commitments in the absence of a grant or cooperative agreement signed by a NASA Grant Officer does so at their own risk. Please refer to Appendix A of the Guidebook for Proposers for more information.

After NASA makes initial selections, NASA may make a supplemental or partial selection of a proposal in response to this NRA that was not previously selected due to limited available funding. Possible reasons for a supplemental selection may be that additional funding becomes available from another NASA program, a future fiscal year, or another federal source. If this occurs, the Selecting Official shall affirmatively make the additional selection and determine that the proposal was and remains meritorious under the current NRA selection criteria. The proposer will be contacted in writing and asked if they are still interested in being considered for an award. If the answer is yes, NASA will request a revised proposal (within the proposed cost), and ask that it be updated due to the passage of time or any other relevant circumstances.

NASA has historically issued a NRA for new proposals every other year rather than annually. This alternating-year approach is based on the intrinsic merit and relevance to NASA of the proposals received and the costs to both NASA and the submitter to respond to the NRA. In FY 2021, if sufficient funds are available, NASA may:

1) select additional FY 2020 proposals for funding rather than open a new competition; and/or

2) augment FY 2020 awards that were previously funded only in part due to the insufficient availability of FY 2020 funds.

2.5 Successor Proposals and Resubmissions

If an organization submitted a proposal that was funded under previous TEAM II or CP4SMPVC NRAs, this does not disqualify the organization from proposing as a lead institution, as a partner on a proposal, or as both under this new transitional TEAM II NRA.

Proposals that were submitted but not selected under any previous NASA solicitation may be submitted in either a revised or original form. Such proposals will undergo full peer review, along with any new proposals that NASA receives, and will not be advantaged nor disadvantaged in the evaluation process because they were previously submitted.

2.6 Proposal Funding Restrictions

In addition to the funding restrictions and requirements contained in the Guidebook for Proposers, 2 CFR 1800, and the GCAM, the following restrictions are applicable to this TEAM II NRA. (See also Appendix G, Special Advisory on NASA Grant Budgets and Policy.)
Note: Refer to Appendix H Proposal Element Details for specific information on proposal budget submission and project description for the proposal.

- The IEIs may use NASA funds for support of regular and consultant staffing; for engagement, education, evaluation, or policy research; for STEM engagement and education programming serving students and their supporting families and formal and informal education providers; and for exhibit design, fabrication, installation, and evaluation. NASA funds may be also used for STEM engagement, education, evaluation, or related equipment, travel, and materials. Basic facilities support, such as leasing of space or acquisition of capital assets (e.g., vehicles) that are not related to STEM engagement and education, is not allowable.

- Grants and cooperative agreements shall not be used as legal instruments for facility design or construction services to be provided to NASA. NASA grants and cooperative agreements are typically not used to fund, in full or in part, real property or general remodeling, construction, or demolition of new or existing non-NASA building or any other type of facility – including exterior spaces. This limitation does not prevent eligible recipients (such as research and/or education organizations, non-profit museums and /or planetariums, parks, etc.) from using funds from NASA grants or cooperative agreements to acquire equipment for production or to enhance, establish, and/or replace permanent NASA-related exhibits with a total cost exceeding $5,000 (the lower limit for equipment costs - otherwise such costs may be considered as supplies). This limitation also does not prevent recipients from using funds from NASA grants or cooperative agreements for the design, fabrication (commonly called construction); delivery, and/or installation for a NASA-related-permanent exhibit; for installation and/or operation of fixed or permanent planetarium equipment; for outdoor exhibits such as solar system walks or Mars Rover yards; or for the delivery, installation, operation, and/or maintenance of permanent, large research equipment.

- For further information on what costs are permissible, refer to the cost principles in Subpart E of 2 CFR 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.

- Budget Restrictions on Federal Partnerships (including NASA Centers). If a proposer’s budget request includes funds for a federal partnership, and the project is selected, and sub-awards are appropriate, such funds will be deducted and separately provided by NASA to the federal partner. Sub-awards to federal entities shall not be budgeted as using NASA funds beyond the first year of the award. Such sub-awards shall be included in the proposal and include a detailed budget narrative and justification with detail for any civil servant/support contractor salary or travel for work that is to be performed by civil servant/contractor workforce. However, award funds shall not be used to pay civil servant salaries. Requests for funds for federal partners should be modest; i.e., not more than twenty (20) percent of the total proposed project’s budget. Furthermore, the proposing institution may not request nor receive indirect costs on the amount budgeted for NASA Centers or other Federal entities. Proposers requesting NASA technical services or materials must contact the NASA Centers from which services or materials will be requested in order to ascertain the availability and anticipated costs of such services or materials.

\[\text{Subject to some limitations; see below.}\]
• Under this NRA, no more than fifty (50) percent of direct cost salaries annually shall be funded for key personnel, excluding K-12 and/or informal educators, post-doctoral researchers and students implementing or benefiting as project participants for the proposed effort. The reason for this limitation is to encourage sustainability of the programming.

• Indirect costs (e.g., facilities and administration) are included in the award amounts, with the remaining funds to be used in supporting project personnel (including partner’s personnel), travel, scholarships or support for exhibit design, fabrication, evaluation, and project-related subcontracts. Furthermore, the proposing institution shall not request nor receive indirect costs on the amount budgeted for other Federal entities. Indirect costs shall be explained to the extent that the explanation allows the Government to understand the basis of the estimates.

• The costs of evaluation, reporting, and sharing project results shall be included in the project budget. Examples of relevant costs associated with evaluation include payments for consultants or qualified project staff, development of effective instruments, information collection, and analysis of project data. The evaluation budget is a minimum of 8% of the overall project budget.

• The proposed budget shall include sufficient funds for an annual trip by the PI or the Co-I or other PI designee or/and other key personnel (e.g., the project’s evaluator) to a 3-day Reverse Site Visit. The TEAM II project manager at JPL will convene such Reverse Site Visits at a NASA site. Proposers should use the farther destination (e.g., Washington, D.C. or California) to estimate travel costs for this trip in the project budget.

• Each award will be funded for no more than $1,000,000 in total.

• Management fees are not allowed.

• Cost sharing or matching is strongly recommended, but not required. Stated another way, this NRA does not prohibit voluntary cost sharing. Responders to this NRA are not required to propose or provide matching funds; however, NASA can accept cost sharing if it is voluntarily offered (see 2 CFR 200.306 “Cost Sharing or Matching”).

• All proposed costs, including matching or cost sharing, shall be allowable, allocable, and reasonable. Funds may only be used for the project. Unless otherwise directed in 2 CFR Part 200, for changes to the negotiated indirect cost rate that occur throughout the project period, you shall apply the rate negotiated for that year, whether higher or lower than at the time of the initial award. All activities charged under indirect costs shall be allowed under the cost principles in 2 CFR Part 200.

2.7 Intellectual Property Developed Under Awards

2.7.1 Data Rights

NASA encourages the widest practicable dissemination of research results at any time during the course of the investigation. The award will contain the Rights in Data clause 2 CFR 1800.909 that allows a Grant/Cooperative Agreement recipient to assert copyright in any work that is subject to a copyright and was developed, or for which ownership was acquired, under the NASA award. NASA will reserve a royalty-free, nonexclusive and irrevocable right to reproduce, publish, or otherwise use the work for Government purposes, and to authorize others to do so, in any such copyrighted work. Note that the Grant Officer may revise the language under this Rights in Data clause to modify each party’s rights based on the particular
circumstances of the program and/or the recipient’s need to protect specific proprietary information.

2.7.2 Patent Rights

Awards are subject to the provisions of 37 CFR 401.3(a) which requires use of the standard clause set forth at 37 CFR 401.14 “Patent Rights (Small Business Firms and Nonprofit Organizations),” along with NASA supplemental language at 2 CFR 1800.908 “Patent Rights.”

2.8 Diversity and Inclusion

NASA recognizes and supports the benefits of having diverse and inclusive scientific, engineering, and technology communities and fully expects that such values will be reflected in the composition of all panels and teams including peer review panels (science, engineering, and technology), proposal teams, science definition teams, and mission and instrument teams.

NASA’s Office of Diversity and Equal Opportunity (ODEO) advances equal opportunity among NASA grant recipients, such as science centers, museums, and planetariums; evaluates grant recipients’ equal opportunity (EO) compliance; and reports on promising practices through desk audits and onsite reviews. NASA ODEO has developed its MissionSTEM website (http://missionstem.nasa.gov) designed to assist NASA grant recipients with their civil rights compliance efforts. The Agency strives to provide a broad scope of technical assistance in this arena. Additionally, NASA has developed many policies, publications and informational materials to help administer EO laws. For complete and current information visit: http://odeo.hq.nasa.gov/policy.html.

NASA’s baseline civil rights requirements for award recipients are similar to other forms of Federal financial assistance. Among the most important of these requirements is an assurance by the grantee institution, prior to award, that it is in compliance with all Federal civil rights laws. The Assurances provision in NASA’s regulations under Title VI of the Civil Rights Act of 1964 is an example of this requirement.

Receipt of Federal financial assistance (Federal Money, Federal Property and detail of Federal Personnel) by an entity triggers the authority and jurisdiction of civil rights laws and regulations for federally assisted programs. If a proposer is awarded a NASA grant/cooperative agreement, this triggers the obligation to comply with Title VI, Section 504 and the Age Discrimination Act. All programs, services and activities of the recipient’s organization shall comply with these laws and regulations, not just the program or exhibit that the NASA grant will support. If the recipient currently has a grant from another Federal agency, then the recipient is already required to comply with these laws.

Finally, in accordance with Federal statutes and NASA policy, no eligible applicant shall be excluded from participation in, denied the benefits of, or be subjected to discrimination under any program or activity receiving financial assistance from NASA on the grounds of race, color, creed, age, sex, national origin, or disability.
3. ELIGIBILITY INFORMATION

3.1 Proposing Institutions

Organizations submitting a proposal under this NRA are certifying that they meet the following criteria to propose as the lead or managing organization:

- legally recognized by a federal, state or local authority as a non-profit;
- located in the United States or its Territories; and
- provide STEM education programming, (such as but not limited to exhibits) through leadership of or partnerships with major networks of other IEIs, youth-serving organizations, libraries, and/or K-12 schools along with commercial entities, higher education institutions, and/or other agencies that support Federal STEM education goals.

An eligible institution is not required to have the words museum, visitor center, science, planetarium, youth, or library in its legal name. All types of NASA Visitor Centers (e.g., private, state or federal entities) are eligible to propose (see Appendix I, Identification of Entities as NASA Visitor Centers Special Guidance: STEM Engagement Activities and NASA Visitor Centers).

Eligible institutions are established or chartered in order to enhance learning and/or engagement, including but not limited to: the study and display of STEM, or established to honor NASA history, personnel, and missions. The following are examples of the types of organizations eligible to compete under this NRA: air and space centers, aviation museums, children’s museums, natural history museums, observatories, planetariums, science-technology centers; aquariums, arboretums, aviaries, zoos; botanical gardens, nature centers; federal and non-federal NASA Visitor Centers and affiliates or Congressionally-authorized NASA memorials such as Challenger Centers based in the United States; theaters and auditoriums dedicated to astronomical shows; State, Local, or Federally-Recognized Tribal Government museums or planetariums; or associations of eligible institutions as recognized by the Internal Revenue Service.

Eligible non-profit IEIs also include, but are not limited to: amateur astronomy groups, community-based organizations, libraries, out-of-school-time organizations, youth-serving organizations, scientific and or engineering societies, or associations that include both eligible institutions and ineligible institutions.

Proposers are required through the Program Specific Data form to self-certify that the organization qualifies as or meets one or more of the following definitions:


“Museum” means a public or nonprofit institution that is organized on a permanent basis for essentially educational or aesthetic purposes and which, using a professional staff, owns or uses tangible objects, either animate or inanimate; cares for these objects; and exhibits them to the public on a regular basis (at least 1000 hours a year). As used in this part, the term “museum” includes, but is not limited to, the following institutions if they satisfy all other provisions of this definition: Aquariums and zoological parks;
botanical gardens and arboretums; nature centers; museums relating to art, history (including historic buildings), natural history, science, and technology; and planetariums. For the purposes of this definition, an institution uses a professional staff if it employs at least one fulltime staff member or the equivalent, whether paid or unpaid, primarily engaged in the acquisition, care, or public exhibition of objects owned or used by the institution. This definition of “museum” does not include any institution that exhibits objects to the public if the display or use of the objects is only incidental to the primary function of the institution.

2) Youth-serving organization (YSO):  
For the purposes of this NRA, youth is defined as children in grades 4-8. Additionally, a youth-serving organization (YSO) is defined as a non-profit institution that is organized to provide positive youth development activities on a permanent basis for educational, recreational, service-learning, or research purposes. Solicited organizations use a professional staff primarily engaged to meet the basic needs of youth for safety, caring relationships, and connections to the larger community while striving to build academic, vocational, personal, creative or social skills. For purposes of this definition, YSOs use at least one full-time staff member or the equivalent, whether paid or unpaid, primarily engaged in the recurring development, delivery or evaluation of the youth development; teaching youth new knowledge or allowing youth to practice life or technical skills etc. YSOs can include national programs, public institutions such as recreational departments and local libraries, private organizations like churches and civic groups, and grass roots community efforts. YSOs can also include public or private K-12 schools, school districts, membership-limited organizations such as scouting or Boys and Girls Clubs, and community-based organizations that provide youth recurring opportunities to learn physical, intellectual, psychological, emotional, and social skills; exposure to intentional learning experiences; opportunities to learn cultural literacies, media literacy, communication skills, and good habits of mind; preparation for adult employment; and opportunities to develop social and cultural capital. An organization responding to this NRA is not required to have the term youth, child, boy or girl in its name. YSOs selected for funding may be required to self-certify that the organization is an entity dedicated to addressing youth development and has an element promoting STEM awareness or authentic STEM research by youth, particularly youth under-represented or underserved in STEM careers, including girls and individuals with disabilities.

3) Library:  
Eligible libraries are non-profit institutions that include the following:

- Public libraries;
- Public elementary and secondary school libraries;
- College (including community college) and university libraries;
- A library agency that is an official agency of a State or other unit of government and is charged by the law governing it with the extension and development of public library services within its jurisdiction;
- A library consortium that is a local, statewide, regional, interstate, or international cooperative association of library entities that provides for the systematic and effective coordination of the resources of eligible libraries, as defined above, and
information centers that work to improve the services delivered to the clientele of these libraries;

- A library association that exists on a permanent basis; serves libraries or library professionals on a national, regional, state, or local level; and engages in activities designed to advance the well-being of libraries and the library profession.

An organization responding to this NRA is not required to have the term library in its name.

An IEI within a non-solicited organization, such as a college, university etc., may apply if it:

1) is able to independently fulfill all the eligibility requirements of this NRA;
2) functions as a discrete unit; i.e., has its own board of trustees or directors separate from the non-solicited entity’s board;
3) has its own fully segregated and itemized operating budget; and
4) has the authority to make the application on its own.

When any of the last four conditions are not met, an IEI may apply through its non-solicited organization only when the non-solicited organization provides a statement of commitment from its CEO or AOR that the NASA funds will be used and tracked exclusively for the proposed project and not for the non-solicited entity’s costs. Failure to include a statement of commitment will disqualify the proposal from award consideration. If the IEI has its own Data Universal Numbering System (DUNS) number, then a non-profit IEI within a non-solicited entity does not need to submit a letter of commitment.

The entities that are not eligible to submit a proposal include: other federal agencies; NASA Centers and Offices; Federally Funded Research and Development Centers (FFRDCs) including JPL; unaffiliated individuals; non-U.S. institutions; Institutions of Higher Education; Commercial or for-profit organizations. However, these entities may be proposed by an eligible IEI as sub-awardees or contractors.

All institutions receiving funds shall be listed on the proposal cover page.

Work to be performed through subcontracts/sub-awards shall be proposed in accordance with the Guidebook for Proposers.

Organizations that do not meet all the NASA TEAM II eligibility criteria or whose proposals do not align with the thematic foci and priorities of this NRA should decline to submit a proposal to this solicitation.

NASA expects pre-submission eligibility issues to be raised to the proposing organization’s highest leadership; e.g., Boards, AOR, legal counsel, chief financial manager, President, etc., who are qualified to certify an organization’s type and PI status for federal funding. Please also refer to Appendix J Guidance on Resolution for Pre-Submission Eligibility Questions.

3.2 Number of Proposals

Organizations shall submit only one (1) proposal per Data Universal Numbering System (DUNS) number. If an organization submits more than one proposal using the same DUNS number, then none of its proposals will be evaluated. However, there is no limit on the number of times an entity may be proposed by another institution as an unfunded partner or as a sub-award. Eligible
institutions may submit a proposal as a lead organization or be proposed for a sub-award as part of other organizations’ proposals, or both.

3.3 Principal Investigators and Proposal Team Members

A Principal Investigator (PI) shall be the President, Vice President, Chief Executive Officer, Chief Financial Officer, Chairman of the Board, Superintendent of Schools, Planetarium Director, Director of Sponsored Research, or similarly ranked executive from an eligible institution. PI status is a key indicator that the proposal has sufficient institutional engagement to be successfully implemented. For additional information for the detailed rationale and criteria for Principal Investigators, see Appendix K, Principal Investigator Criteria Details.

3.4 Interactions, Collaborations, and Partnerships with NASA

IEIs are required to partner with one or more relevant NASA Center(s) or other NASA facilities (see Appendix C), and encouraged to build collaborations with universities and other schools or educational institutions currently or previously funded by NASA programs such as Space Grant and MUREP, to enhance the ability of the project to deliver NASA-unique STEM content.

NASA Centers receive and respond to many requests for education and public outreach activities that require no special resource commitments because 1) they are part of the regular business practices which are already included in a Center’s budget or 2) such requests are handled on a case-by-case basis based on availability of personnel. Entities seeking these types interactions with NASA can contact NASA directly, independent of proposal preparation. For example, the Speakers Bureau is a standard of NASA’s public communication and outreach programs. Details about requesting speakers can be found at: https://www.nasa.gov/about/exhibits/index.html.

Partnerships, however, come in many varieties, including some that require significant resource demands on NASA in terms of facilities, equipment, personnel, etc., and others that do not require any significant demands on NASA resources.

Proposers requesting access to NASA technical services or materials shall contact the NASA Centers (excluding JPL) from which services or materials will be requested in order to ascertain the availability and anticipated costs of such services or materials (see Appendix C: NASA Points of Contact).

If contact with a NASA Center or Mission Directorate or Office at NASA Headquarters does not receive a response, document the details of the requested NASA assets and the attempts to reach NASA within the budget justification of the proposal. Most costs that NASA Centers incur for the use of facilities and contracted technical support are expected to come from non-TEAM II funds.

Conflicts of Interest

NASA Employees: All NASA employees shall avoid Conflicts of Interest (COI) and strive to reduce the appearance of COI. Because this NRA is issued by NASA Headquarters, contracting or grants officers with input from NASA’s Office of the General Counsel will resolve Organizational Conflicts of Interest (OCI) or COIs related to proposal submission and review.

The Center engagement/education Points of Contact identified in Appendix C will likely serve as Technical Officers for new NASA TEAM II awards. A NASA Technical Officer has primary responsibility for reviewing and approving annual reports that shall include key performance
metrics. The NASA employees listed in Appendix C shall not assist in the development (or any formal pre-submission review) of specific proposals, including proposals from NASA Visitor Centers. This restriction begins on the release date of this NRA. Additionally, employees at NASA Headquarters who are internal reviewers for this NRA cannot “pre-read” proposals or provide letters of support or commitment to a proposing entity. Federal Government employees who are unable to avoid real or apparent COIs will not be permitted to participate in the proposal review process.

The NASA TEAM II management team does not provide COI guidance. NASA employees (other than those identified above) who plan to provide a written commitment or letter of support to a potential proposer should follow the policies and procedures in place at their employing center or facility and, if applicable or necessary, refer any questions about letters to their Center’s legal office.

**Jet Propulsion Laboratory (JPL):** As a Federally Funded Research and Development Center, the JPL has a Task Order with NASA’s Office of STEM Engagement under NASA prime contract NNN12AA01C to provide technical support for the planning and implementation of NASA Headquarters’ Education Portfolio, including this TEAM II NRA. To avoid any possible perception of a real or potential conflict of interest, JPL is not eligible to serve as a subcontractor, partner, or collaborator to an entity proposing under NASA TEAM II. Eligible institutions shall not contact JPL for statements of commitment or support prior to proposal submission, nor shall they contact JPL for cost estimates or to discuss the utilization of Museum Alliance services or any potential collaboration related to a TEAM II proposal. Post-award, all TEAM II awardees shall cooperate with the JPL-managed TEAM II/CP4SMPVC community of practice, as well as integrating their proposed work to strengthen the JPL-managed Museum Alliance. Outside of the TEAM II NRA and awardees, JPL supports the IEI community through the Museum Alliance.

### 3.5 Submissions from Non-Domestic Entities

NASA may consider proposals from entities outside the U.S. However, foreign entities are generally not eligible to receive funding from NASA. Therefore, unless otherwise noted in this NRA, proposals from foreign entities should not include a cost plan unless the proposal involves collaboration with a U.S. institution, in which case a cost plan for only the U.S. entity’s participation shall be included. Proposals from foreign entities and proposals from U.S. entities that include foreign participation shall be endorsed by the respective government agency or funding/sponsoring institution in the country from which the foreign entity is proposing. Such endorsement shall indicate that the proposal merits careful consideration by NASA, and if the proposal is selected, that sufficient funds will be made available to execute the activity as proposed.

### 4. CERTIFICATIONS OF COMPLIANCE

See the Certifications and Assurances link on the NASA Grant and Cooperative Agreement webpage and Section 3.9 of the Guidebook for Proposers. Both can be found at the following site: [https://prod.nais.nasa.gov/pub/pub_library/srba/index.html](https://prod.nais.nasa.gov/pub/pub_library/srba/index.html).

Once NASA selects a proposal for award, the NASA Grants Officer will request the proposer to provide additional certifications and will provide the proposer the special award conditions (see
Appendix L Potential Items in Special Language and/or Requirements for TEAM II Awards for the types of items that could be included).

The Authorized Organizational Representative’s (AOR’s) signature on the proposal automatically certifies that the proposing organization has read and is in compliance with the identified certifications, assurances, and representations.

5. PROPOSAL INSTRUCTIONS AND SUBMISSION INFORMATION

5.1 Proposal Submission Date and Time

The AOR shall submit the electronic proposal shall be submitted in its entirety no later than 11:59 pm Eastern Time on the due date.

Proposers are responsible for understanding and complying with this NRA for the successful, timely preparation and submission of their proposals. Proposals that do not conform to this NRA’s requirements may be declared noncompliant and may not be forwarded to peer review.

On-time electronic submission is required for every proposal. While every effort is made to ensure the reliability and accessibility of the websites and to maintain a help center via e-mail and telephone, difficulty may arise at any point on the internet, including with the user’s own equipment. Prospective proposers are urged to familiarize themselves with the NSPIRES or Grants.gov site and to submit the required proposal materials well in advance of the proposal submission deadline. Difficulty in registering with or using the NSPIRES or Grants.gov proposal submission systems is not, in and itself, a sufficient reason for NASA to consider a late proposal. Proposers may contact the NSPIRES help desk by e-mail at nspires-help@nasaprs.com or by calling, Monday through Friday from 8:00 am to 6:00 pm Eastern Time at (202) 479-9376, excluding federal holidays. The Grants.gov contact center is available by e-mail at support@grants.gov, or by calling (800) 518-4726, and via website at http://www.grants.gov/.

5.2 Pre-proposal Teleconference

A pre-proposal teleconference will be held May 15, 2019 from 3:00 – 5:00 PM Eastern Time. Prospective proposers are requested to submit any written questions no later than two business days before the teleconference so that NASA will be able to cover as much information as possible at the teleconference. NASA plans to post written questions and answers and teleconference charts to the NSPIRES website. An opportunity to ask questions and solicit clarification will be provided at the teleconference.

Interested proposers shall register in NSPIRES and sign up for notification emails so they will receive notice of this teleconference. To dial into the teleconference, call 888-323-4924. The participant passcode is 3876248. For relay services for the hearing impaired, call 711 at least 30 minutes before the call is to begin. (For more information on relay services refer to https://www.fcc.gov/guides/711-telecommunications-relay-service).

5.3 Submission of Proposals

All proposals submitted in response to this TEAM II NRA shall be submitted in a fully electronic form. Hard copy proposal or components of the proposal submissions will not be accepted. Electronic proposals shall be submitted by one of the officials at the PI’s institution who is authorized to make such a submission, the AOR. The AOR’s electronic submission of the
proposal fulfills the requirement for signature of the proposal by an authorized official of the proposing institution.

Proposers may opt to submit proposals in response to this TEAM II NRA via two different electronic proposal submission systems: either NSPIRES or Grants.gov. In all cases, registration on NSPIRES is required for review and award of any funded activity offered through this solicitation; therefore, proposers are encouraged to use the NSPIRES system for submission of the proposal. Proposals submitted via Grants.gov will be transferred to NSPIRES for review.

**Please note:** Additional information about NSPIRES and Grants.gov can be found in Sections 4.2 and 4.3 of the *Guidebook for Proposers*.

Note that entities may begin working in these systems as soon as the NRA is released. Further, entities may edit the required information as many times as needed until the proposal and accompanying cover sheet information are ready for submission.

**IMPORTANT NOTICE ABOUT GRANTS.GOV:** As of January 1, 2018, applicants are no longer be able to download the single PDF application package of forms in Grants.Gov. Instead, applications submitted through Grants.gov must be submitted through the “Workspace” feature. Information on the Workspace feature can be found at the Grants.gov Workspace Overview Page.

As part of the electronic proposal submission process, proposers shall complete the Program Specific Data form (see Appendix M).

**WARNING:** The required Program Specific Data form (Appendix M) is not available via grants.gov. Be sure to include your answers to the program specific data sheet (PSD) as an appendix.

Applicants choosing to submit a proposal via Grants.gov also shall register with NSPIRES well in advance of the proposal due date. Grants.gov proposals are transcribed manually to NSPIRES so that NASA can review the proposal. Grants.gov proposals cannot be transcribed for entities 1) not eligible to compete or 2) not registered in NSPIRES by the due date for proposals for this NRA.

**Technical Note:** Grants.gov does not use the NASA budget template and lacks data quality control checks available to proposals submitted via NSPIRES.

**5.4 Registration**

In order to submit a proposal, all team members and their institutions shall first be registered in the NSPIRES (http://nspires.nasaprs.com) system. Proposers submitting through Grants.gov shall also register on Grants.gov. Details of the multi-step registration process, which takes three (3) business days (or up to four (4) weeks if all steps are not completed in a timely manner) to register a new institution, are described in https://www.grants.gov/help/html/help/index.htm#t=GetStarted%2FGetStarted.htm. Registration in NSPIRES cannot be accomplished until each applicable institution obtains a Data Universal Number (DUNS) and registers in the System for Award Management (SAM, https://sam.gov). Once the DUNS and SAM steps are complete, the institutions and each team member shall then register with NSPIRES and with Grants.gov if that submission medium will be used.
**PLEASE NOTE:** Registration with NSPIRES is required in order to complete transfer of the Grants.gov proposal to NASA for review. Linking a team member’s registration with its institution will automatically associate all required numbers (DUNS, CAGE, and EIN) with the same proposal.

To identify the AOR, who also can register the institution if it is not already registered, a potential PI can contact his or her Sponsored Research Office (SRO). If an institution is not registered in SAM, then the point of contact (POC) from the Office of Sponsored Research/Electronic Business POC shall register it in SAM.

Not later than the due date for proposals, proposers to this NRA shall have:

1) a Data Universal Numbering System (DUNS) number,
2) a valid registration with the System for Award Management (SAM),
3) a valid Commercial And Government Entity (CAGE) Code,
4) a valid registration with NASA Solicitation and Proposal Integrated Review and Evaluation System (NSPIRES) (this also applies to all entities that are proposed for sub-awards or subcontracts.)

Every institution that intends to submit a proposal to this NRA, including the proposed lead institution or any partner whether an IEI, other non-profit institution, state and local Government agency, and any other organization that will serve as a sub-awardee or contractor, shall be registered in NSPIRES.

**IMPORTANT INFORMATION FOR NON-PROFITS THAT ARE NOT MUSEUMS, YSOs, OR LIBRARIES**

Non-higher-education entities, such as K-12 education groups or institutions of informal education, are classified as Education Organizations. Since NSPIRES does not have a listing for Education Organizations, institutions falling under this category should propose as appropriate as non-profit or commercial organizations or as agencies of state, local, or Federally-recognized tribal governments as described in the Guidebook for Proposers, Appendix B. Institutions of higher education are not eligible proposing entities.

If an organization has several different types of IEIs (e.g., a planetarium, an air or space museum, a natural history museum, aquarium, etc.), and has only used one DUNS number to request Federal funds, then the organization shall create a new DUNS number or a +4DUNS in order to submit more than one lead proposal under this NRA. If an organization submits more than one lead proposal using the same DUNS number without a qualifying +4DUNS, then all of that organization’s proposals will be disqualified from award consideration.

SAM registration issues for a +4DUNS should be addressed to the Federal Service Help Desk: https://www.fsd.gov/fsd-gov/home.do or 866-606-8220.

A non-solicited organization that already has both a DUNS number and a SAM number shall obtain a +4 extension to a DUNS number to distinguish its IEI. Dun and Bradstreet does not create or maintain this +4 extension. Rather, this 4-digit suffix is assigned at the discretion of the controlling business concern in order to identify sub-units or affiliates. The creation of a +4DUNS is solely at the discretion of the controlling organization that is registered in the SAM. Registrants in SAM create this +4 extension to a DUNS number in SAM when there is a need for more than one bank/Electronic Funds Transfer (EFT) account for a location. The +4DUNS is
created from an active record in the SAM. Please refer questions to the SAM’s Federal Service Desk Helpdesk at 866-606-8220. A submitter’s failure to provide a +4DUNS by the proposal’s submission date will disqualify the proposal from award consideration.

**Technical note:** A +4DUNS number is 13 digits and will not fit on the cover sheet form in NSPIRES, but shall be entered in the Program Specific Data form that is part of the NSPIRES requirements for NASA TEAM II proposals. On the NSPIRES coversheet an organization enters the 9-digit DUNS it shares with the operating/parent entity and shall enter the +4DUNS number in the Program Specific Data form (see Appendix M).

### 5.5 Notice of Intent to Propose

To assist in the planning of the proposal evaluation process, NASA strongly encourages all prospective proposers to submit a Notice of Intent (NOI) to propose by 11:59 pm ET May 22, 2019. An NOI is not required, but strongly encouraged. The information in an NOI is used to help expedite the proposal review activities; therefore, it is of considerable value to both NASA and the Proposer. To be of maximum value, NOIs are to be submitted electronically by entering the requested information through NSPIRES at [http://nspires.nasaprs.com](http://nspires.nasaprs.com) by 11:59 pm ET May 22, 2019. Note that NOIs may be submitted within NSPIRES directly by the PI; no action by an institution’s AOR is required to submit an NOI.

NOIs also aid NASA in establishing a peer review process that is free from conflicts of interest and that incorporates the requisite expertise. NOIs are informational descriptions of the anticipated content of the proposals. They are 400 words or less, and should include the following information:

- Title of proposal
- Proposing institution name and type (one of: Museum, Planetarium, NASA Visitor Center, Youth Serving Organization, Library).
- Anticipated Project Goal(s), Objectives, and Intended Outcomes
- Anticipated network and partner organizations
- Primary anticipated target audience(s) (include age range for youth audiences)
- Anticipated area of reach (specify the areas and indicate whether it be regional or national)
- Anticipated types of programs and products to be utilized and/or developed

Grants.gov does not provide NOI capability; therefore, NOIs shall be submitted via NSPIRES regardless of whether the proposal will be submitted via NSPIRES or Grants.gov. Prospective proposers shall register with NSPIRES before it can be accessed for use.

Since NOIs submitted after these deadlines may still be useful to NASA, TEAM II will accept NOIs that are submitted up to 2 weeks prior to the proposal due date. **Note:** NOIs cannot be started in NSPIRES after the NOI deadline. Proposers wishing to initiate an NOI after the due date (only) may submit the NOI with all the required information by email to Althia Harris at aharris@nasaprs.com.

### 5.6 Team Member Confirmation

Each individual team member (e.g., PI, Co-Is, etc.), including all personnel listed on the proposal’s electronic cover page, shall confirm their participation on that proposal (indicating team member role) and specify an institutional affiliation. For proposals submitted via NSPIRES,
this confirmation is via NSPIRES. For proposals submitted via Grants.gov, this confirmation is via “Statements of Commitment” included within the proposal. The institutional affiliation specified on the cover page shall be the institution through which the team member would work and receive funding while participating in the proposed investigation. If the individual has multiple affiliations, then this institution may be different from the individual’s primary employer or preferred mailing address. Any institution requesting NASA funds through the proposed investigation shall be listed on the Proposal Cover Page. Team members shall ensure that their contact information is current. Changes can be made using the “Account Management” link on the “NSPIRES Options” page.

5.7 Withdrawal of Proposals

The proposer may withdraw proposal at any time before award. Proposers shall timely notify NASA if the proposal is funded by another institution or of any other changed circumstances that necessitate withdrawal of the proposal.

5.8 Questions Related to this NRA

Any clarifications or questions and answers that are published will be posted on the NASA TEAM II NSPIRES web page. Interested proposers shall routinely check for such information prior to submitting their proposals.

Clarification questions regarding this solicitation shall be submitted in writing or via e-mail to the addresses below as soon as possible but no later than 10 days prior to the proposal due date.

Submit general questions about TEAM II in writing to:
NASA TEAM II Co-Manager
Leslie L. Lowes
Jet Propulsion Laboratory
California Institute of Technology
Email: TEAMII@jpl.nasa.gov

If no response is received within five (5) days, proposers may contact the NASA TEAM II Technical Officer:
Beverly Girten
Director of Institutional Engagement and Co-Manager of TEAM II
Office of STEM Engagement
NASA Headquarters
Washington, DC 20546
Email: Beverly.E.Girten@nasa.gov

Inquiries about On-line Submission of Proposal Materials through NSPIRES

Address questions about a proposal submitted to or pending in NSPIRES to:
Althia Harris
NASA Research & Education Support Services
2345 Crystal Drive, Suite 500
Arlington, VA 22202
202-479-9030 ext. 310
202-479-0511 (fax)
Email: aharris@nasaprs.com
If there is no response or it is after hours, contact the NSPIRES Help Desk at nspires-help@nasaprs.com or call 202-479-9376 between 8:00 a.m. and 6:00 p.m. Eastern Time, Monday through Friday, except on Federal holidays.

5.9 Conflict of Interest Check Information

NASA requires all peer reviewers and/or panelists to disclose any conflicts of interest (see the Guidebook for Proposers). Peer reviewers are also expected to disclose situations that may give the appearance of bias, or that may cause a reasonable observer to question the ability of the reviewer to provide an unbiased evaluation of a proposal. Peer reviewers are required to sign a nondisclosure/conflict of interest form prior to being granted access to proposals. To facilitate adherence to the required conflict of interest disclosures, any institution requesting NASA funds through the proposal SHALL be listed on the proposal cover page.

5.10 Other Submission Requirements

All proposals shall comply with the general requirements of this NRA. Upon receipt, proposals will be reviewed for compliance to ensure that the proposal includes the following:

- Featuring of NASA-themed space exploration tied to the NRA’s theme/priority (Section 1.3.1).
- Submission of a complete proposal with all required elements.
- Submission of a proposal from an eligible Proposer as specified in the Eligibility Information. (Section 3 of this NRA).
- Submission of a budget narrative that includes details of any subawards and that is for a funding period consistent with this NRA.
- Submission of a proposal that is consistent with the page limitations and formatting guidelines specified in this NRA and the Guidebook for Proposers.

At NASA’s discretion, non-compliant proposals may be rejected and not evaluated further. Disqualified proposals that were submitted through Grants.gov will be declined administratively as “noncompliant with the NRA”. Disqualified proposals that were submitted through NSPIRES will be returned without review using the NSPIRES “Return Proposal” function.

5.11 Content and Format of the Proposal Submission

Required elements of the proposal as described below shall be submitted via the NSPIRES website or Grants.gov. Proposers shall assemble their proposal into one PDF file (except the NSPIRES-generated Proposal Cover Page) prior to upload of the proposal. Proposers shall comply with all format requirements identified in this NRA and in the Guidebook for Proposers. Please refer to Section 3 of the Guidebook for Proposers for more information on proposal submission procedures. Section 3.6 of the Guidebook for Proposers provides important guidelines for style formats. A sample proposal cover page can be found in Appendix N.

NASA Requirements for Uploaded PDF Files

It is essential that all PDF files submitted meet NASA requirements. This will ensure that the submitted files can be accepted by NSPIRES regardless of whether the proposal is submitted via NSPIRES or Grants.gov. This will also ensure that proposals can be read by community
reviewers and NASA staff using a wide variety of computers, operating systems, and PDF readers. At a minimum, it is the proposer’s responsibility to ensure:

(1) that all PDF files are unlocked and that edit permission is enabled—this is necessary to allow NSPIRES to integrate submitted files into a single PDF document for review,
(2) that all fonts are embedded in the PDF file, and
(3) that only Type 1 or TrueType fonts are used.

In addition, any proposer creating files using TeX or LaTeX shall first create a DVI file and then convert the DVI file to Postscript and then to PDF.

All proposers are encouraged to reference http://nspires.nasaprs.com/tutorials/PDF_Guidelines.pdf for more information on creating PDF documents that are compliant with NSPIRES. There have been recent occurrences in which pdf files produced using newer versions of Microsoft Word have not been properly accepted into NSPIRES. NSPIRES is unable to accept PDF files that do not meet NASA requirements. If NSPIRES is unable to accept a proposal, NASA may determine it to be noncompliant and decline such proposal without further review.

Assembly of Electronic Proposals

The project description and other required sections of the proposal shall be submitted as searchable, unlocked PDF files that are attached to the electronic submission. Proposers shall comply with any format requirements specified in this NRA and in the NASA Guidebook for Proposers. Only appendices/attachments that are specifically requested in either this NRA or in the NASA Guidebook for Proposers will be permitted. Proposals containing additional appendices/attachments may be declared noncompliant and not forwarded to peer review. Refer to Appendix F for more information about statements of commitment and letters of support. In the case of any conflict between the content of this NRA and the Guidebook for Proposers, this NRA takes precedence.
<table>
<thead>
<tr>
<th>Proposal Elements</th>
<th>Page Guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSPIRES Cover Page and Budget Form (Section 3.7 of the Guidebook for Proposers): The NSPIRES Cover Page is generated online and contains the following:</td>
<td>1 or more—NSPIRES will generate the necessary number of pages</td>
</tr>
<tr>
<td><strong>Proposal Information:</strong> PI information, proposal title, proposed start and end dates, submitting institution information, certification and authorization.</td>
<td></td>
</tr>
<tr>
<td><strong>Certifications Regarding Lobbying, Disbarment, Suspension and Other Responsibility Matters:</strong> The AOR’s signature on the Proposal Cover Page automatically certifies that the proposing organization has read and is in compliance with these certifications. No additional form is necessary. See 2 CFR 1800 Appendix A (<a href="https://prod.nais.nasa.gov/pub/pub_library/srba/index.html">https://prod.nais.nasa.gov/pub/pub_library/srba/index.html</a>)</td>
<td></td>
</tr>
<tr>
<td><strong>Team Members:</strong> Names, institution and contact information (Notes: Each team member shall register him/herself in NSPIRES and complete all required data. Each team member shall establish an organizational relationship; i.e., identify the organization or other auspices through which the person is participating in the proposal. A proposal cannot be submitted if an organizational relationship within NSPIRES is missing for any team member.)</td>
<td></td>
</tr>
<tr>
<td><strong>Proposal Title:</strong> Include a meaningful title for the proposed project. DO NOT simply state NASA TEAM II Proposal. (Note: Title length may not exceed 255 characters including spaces.)</td>
<td></td>
</tr>
<tr>
<td><strong>Project Summary</strong> (max. 4000 characters, Section 3.7 &amp; 3.10 of the Guidebook for Proposers): Provide a brief description of the project, including objectives, targeted audience, partners, method of approach, relevance to NASA themes, use of NASA content, and outcomes.</td>
<td></td>
</tr>
<tr>
<td><strong>Budget Figures:</strong> Include figures for each year (from two (2) up to four (4)) of the proposed project in the spaces provided. This is the total budget, including any sub-awards.</td>
<td></td>
</tr>
<tr>
<td><strong>Note:</strong> Sample Cover Pages are located in Appendix N of this NRA. NASA is not permitted to fund institutions that are not listed on the Proposal Cover Page. This includes NASA Centers.</td>
<td></td>
</tr>
<tr>
<td><strong>Note:</strong> To improve proposal reviewability, proposers shall submit one PDF file to NSPIRES that begins with the Table of Contents and includes all information described below:</td>
<td></td>
</tr>
<tr>
<td><strong>Table of Contents (TOC) (Section 3.7 &amp; 3.12 of the Guidebook for Proposers)</strong></td>
<td>1-2 pages</td>
</tr>
<tr>
<td>NSPIRES does not offer a stand-alone TOC file upload choice. If not uploading a complete end-to-end proposal in a single PDF, include a TOC as the first page(s) of the project description even if that makes the project description longer than 15 pages.</td>
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</tr>
<tr>
<td><strong>Project Description:</strong> A detailed description of the proposed plan. The Project Description shall contain, at a minimum, the following elements, as described in detail in Appendix H Proposal Element Details: (1) Relevance to NASA’s and this NRA’s Objectives, (2) Technical Project Plan, (3) Management and Evaluation; and (4) Resources. Page limit includes all illustrations, tables, and figures, where each “n-page” foldout counts as n-pages and each side of a sheet containing text or an illustration counts as one page. See Section 6.1 of this NRA for a detailed description of the evaluation criteria.</td>
<td>maximum 15 pages</td>
</tr>
<tr>
<td><strong>References and Citations</strong> (Section 3.14 of Guidebook for Proposers)</td>
<td>1 or more (if applicable)</td>
</tr>
<tr>
<td>Proposal Elements</td>
<td>Page Guideline</td>
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<td>----------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td><strong>Biographical Sketches:</strong> Submit sketches for key personnel using the guidelines from the <em>Guidebook for Proposers</em> and references therein.</td>
<td>PI: max 2 pages &lt;br&gt;Each Co-I and Other Key Personnel: max 1 page</td>
</tr>
<tr>
<td><strong>Current and Pending Support</strong></td>
<td>1 or more (if none, so state)</td>
</tr>
<tr>
<td><strong>Statements of Commitment and Letters of Support</strong> <em>(Section 3.17 of <em>Guidebook for Proposers</em> and Appendix F of this NRA.)</em></td>
<td>1 or more (if appropriate)</td>
</tr>
<tr>
<td><strong>Program Specific Data (PSD)</strong>—Appendix M of this NRA is only available as an NSPIRES Template. <strong>WARNING:</strong> Grants.gov does not contain this PSD template. Therefore, Grants.gov submitters shall include the PSD response immediately before the proposal’s Table of Contents.</td>
<td>NSPIRES-generated</td>
</tr>
<tr>
<td><strong>Budget Justification: Narrative and Details:</strong> Include a budget breakdown for each year of proposed work, along with total budget figures for the entire period of performance.</td>
<td>1 or more</td>
</tr>
<tr>
<td><strong>WARNING:</strong> A peer review panel finding of “insufficient information to properly evaluate cost realism” will be considered a proposal weakness. Inconsistent information between budget descriptions and the proposal text will also be considered a proposal weakness.</td>
<td></td>
</tr>
<tr>
<td>Appendix H Proposal Element Details provides details on budget submission.</td>
<td></td>
</tr>
<tr>
<td>Appendix C of the <em>Guidebook for Proposers</em> contains Facilities and Administrative (F&amp;A)/Indirect Costs proposal guidelines and submission instructions.</td>
<td></td>
</tr>
<tr>
<td>Facilities and Administrative (F&amp;A)/Indirect Costs: Identify F&amp;A/indirect cost rate(s) and base(s) as approved by the cognizant Federal agency, including the effective period of the rate. Provide the name, address, and telephone number of the Federal agency official having cognizance. <strong>IF approved audited rates are not available, provide the computational basis for the indirect expense pool and the corresponding allocation base for each proposed rate.</strong></td>
<td></td>
</tr>
</tbody>
</table>

Linked/Appended material (other than required forms) will not be considered or reviewed.

If appropriate, proposers shall budget and document compliance with the Code of Federal Regulations (CFR), 14 CFR §1230, commonly referred to as “the Common Rule for the Protection of Human Subjects.” Research to develop NASA-themed exhibits, programs, curriculum products, etc., may involve full human subjects review through an Institutional Review Board (IRB) or it may be exempt. An IRB also certifies when research is exempt. Research using surveys, observational or ethnographic methods, cognitive and educational tests, etc., is “exempt” unless the following two conditions apply: 1) the information would allow subjects to be identified, and 2) disclosure of the data would reasonably place the subject at risk.
of criminal or civil liability or be damaging to the subjects’ financial standing, employability, or reputation. It is anticipated that most research will be exempt and that non-exempt research will not involve NASA facilities, personnel or equipment or the NASA IRB18 and http://irb.nasa.gov/. Before submitting a proposal, the PI shall determine whether any proposed research activities require IRB approval or is exempt. The Department of Health and Human Services Office of Human Research Protection (HHS OHRP) sponsors a website and IRB Training that may be helpful. Visit https://phrptraining.com/#1/ and http://ohrp.cit.nih.gov/search/irbsearch.aspx?styp=bsc.

6. PROPOSAL EVALUATION AND SELECTION

6.1 Proposal Review Criteria

Proposals will be evaluated based on the following criteria: (1) **Intrinsic Merit**, (2) **Relevance to NASA**, and (3) **Budget/Cost**. The evaluation criteria are based upon NASA’s 2018 Strategic Plan, NASA STEM Engagement Objectives and Strategies, NASA’s Guidebook for Proposers, and the CoSTEM federal strategy for 2018-2022. The project description shall reflect the unique ability of the lead institution and any partners to further the goals and objectives stated in Section 1.3.1. It shall clearly and concisely illustrate the alignment with NASA’s 2018 Strategic Plan, NASA STEM Engagement Objectives and Strategies supported by TEAM II, and the CoSTEM federal strategy for 2018-2022. Proposers are expected to provide sufficient detail to enable review by persons who are knowledgeable in, but not necessarily specialists in, the proposed technical area. Proposal reviewers may include personnel from NASA, individuals working in federal, state or local agencies, industry, philanthropic foundations, K-12 and institutions of higher education, firms providing evaluation of educational projects, and all types of non-competing IEIs.

**Note:** Cost sharing will not advantage or disadvantage a proposal in the peer review evaluation process, and is not an evaluation factor in the consideration of which proposals receive awards.

6.1.A. **Intrinsic Merit (40%)**

Evaluation of **Intrinsic Merit** will consider that the sub-elements are clear, reasonable and properly aligned with the overall project goals & objectives. There are four (4) sub-elements under this criterion. They are:

**Quality and Feasibility**

- Demonstrates clear goals and objectives that are aligned with the emphasis of this NRA, NASA Strategic Objective 3.3, and the NASA STEM Engagement Objectives and Strategies that TEAM II supports.
- Presents a clearly organized and workable management plan for achieving educational goals and objectives, and includes clear lines of communication with NASA and/or other partners regarding responsibilities.
- Presents a realistic schedule/timeline or other description of how activity goals, objectives and major milestones will be met. Includes a feasible timeline per proposed activity years and milestones or benchmarks for success.
- Demonstrates the use or development of evidenced-based educational strategies in designing and implementing the project.
• Clearly describes and defines how the project will interact with NASA and its identified customers (internal and external). Provides a clear overview that sites have worked with partners to leverage regional/national networks. Includes financial or in-kind letters of support from partners and collaborators.
• Includes a project plan that is clearly consistent with the budget and demonstrates a high probability for successful project implementation.
• Demonstrates the relevancy of the project goals and objectives to the institution where the supported activities will reside or be led, the proposing organization’s capacity and experience for conducting the proposed activities, and the pre-proposal depth of programming and professional staffing.

**Audience and Stakeholder Focus**

• Clearly explains how the activity is student- or youth-centered, and if appropriate to the proposed project, how students/youths are served through their support systems of families and informal and formal educators and institutions.
• Demonstrates how activities align with national educational standards, especially the Next Generation Science Standards.
• Addresses substantiated (e.g., through an existing needs assessment or other evidence) national or regional educational needs or challenges.
• Identifies all target audiences and stakeholders (internal and external), specifies what their needs are, and how those needs will be addressed.
• Provides representation of target audiences in the development of the project.
• If appropriate to the proposed work, includes a plan for providing evidence, findings, and/or deliverables that form the basis of anticipated further innovative work including evidence-based strategies.
• Includes strategies to ensure the accuracy and user-friendliness of resources produced and methods of tracking progress.

**Partnerships**

• Includes one or more of its partners in the design, development, evaluation, and dissemination.
• If a new partnership is proposed, provides a clear plan for the establishment and management of the relationship.
• Includes partners and collaborators with well-defined roles and responsibilities, including (as appropriate) for project expansion or sustainability, and indicates the capabilities that the partner is contributing to the effort.
• Demonstrates how the scope and quality of the required network is appropriate and sufficient to achieve the goals of this NRA and of the proposed work.
• Demonstrates the pre-proposal experience of the required network its effectiveness in serving the communities to be reached in the proposal.
• Demonstrates how the project directly benefits the NASA Museum Alliance and its members.
Project Evaluation (1/4 of Intrinsic Merit weight, or 10%)

Evaluation of Project Evaluation includes consideration of the following criteria:

- The Evaluation Plan is appropriate for the scope of the project.
- Provides evidence that the Evaluation Plan can be successfully implemented (e.g., citation from independent evaluators statement of endorsement, some measurable data (i.e., number of completed surveys) or interview transcripts, etc.).
- Includes an appropriate evaluation plan/process that documents outputs, impacts, and outcomes that demonstrate progress toward achieving objectives of proposed project activities and the objectives/priorities of the NRA.
- Demonstrates how the project builds on lessons-learned and/or best practices of past education and/or research and learning activities. Specific examples are provided as to how the program design is aligned to evidence.
- Demonstrates how appropriate evaluation processes are embedded throughout the life-cycle of the project.
- Demonstrates how the project’s plans lead to a measurable impact on learner interest in and positive attitudes towards STEM topics and improve self-perception of the learner’s ability to participate in STEM, and outlines how this will be measured.
- Has well-constructed plans for formative and summative project evaluations, and clearly demonstrates the independence of the personnel providing the evaluations.
- Bases the forms of evaluation upon reputable models and techniques appropriate to the content and scale of the project. Evaluation methods provide useful information on the effectiveness and/or impact of the proposed project, and the project implements improvements based on evaluation evidence.
- References project and evaluation impacts, outcomes, and metrics in terms of the evidence and categories of informal science education impacts in the NSF report Framework for Evaluating Impacts of Informal Science Education Projects.
- Includes specific and sufficient resources dedicated to evaluation activities in the detailed work plan, project budget, and schedule of completion. The evaluation budget is a minimum of 8% of the overall project budget.

6.1.B. Relevance to NASA (40%)

There are three (3) sub-elements under this criterion. They are:

Content

- Clearly articulates how project goals and objectives are relevant to the appropriate Mission Directorate(s) or other participating NASA Offices. Clearly identifies and addresses NASA content and the theme/priority as outlined in the NRA.
- Clearly demonstrates the direct use of appropriate NASA content, people, facilities, educational and engagement resources, current and former NASA grantees and their work and results (including grantees under TEAM II and its precursor CP4SMPVC), and/or other related partners.
- Uses NASA educational activities and assets, or provides a justification as to why a new NASA-related asset is proposed for use rather than an existing one.
- Clearly articulates plans for experiential authentic STEM opportunities that encourage innovation, critical thinking, and problem-solving skills.
Continuity

- Demonstrates how project activities relate to NASA or NASA’s career pipeline.
- Provides linkages to improve STEM education across the learning environment, if appropriate.
- Includes effective methods for attracting students, teachers, and diverse stakeholders to further formal or self-directed study in NASA STEM fields, and where possible, supports continuity of participant experience by including a plan to direct participants to other existing NASA educational opportunities.
- Demonstrates continuity of information flow to the audience and stakeholders over an extended period of time.
- Includes a clear and appropriate plan for sharing the products generated during the project and describes how the evaluation results will be shared beyond the immediate project team and organization.

Diversity

- Provides evidence that proposed effort cultivates diversity and extends access to existing NASA content.
- Makes a demonstrable contribution to attracting diverse populations to NASA missions or NASA-STEM related educational activities and to future careers in STEM.
- Includes clear plans to serve, as target audiences, groups historically underrepresented and underserved in STEM fields as specified in the NRA.
- Describes a strong outreach plan to effectively reach appropriate audiences, using culturally appropriate means to include underrepresented and underserved groups.
- Addresses geographical diversity, especially in outreach and retention efforts.

6.1.C. Budget/Cost (20%)

- The proposed budget is adequate, appropriate, reasonable, and realistic.
- The proposed budget demonstrates the effective use of funds.
- The proposed budget includes a clear alignment between the proposal narrative and budget.
- The proposed budget demonstrates the effective use of funds for which outcomes justify total costs.
- All proposed budget line items are explained and justified.
- The proposed budget follows the requirements, guidelines, and limitations set forth in this NRA.

6.2 Review and Selection Processes

Proposal external peer review functions for NASA TEAM II have been contracted to JPL. However, the authority and responsibility for eligibility determinations and award selection decisions remain with NASA. Proposals will be reviewed as follows:

1) Eligibility or Compliance with the NRA: Proposals will be assessed by the NRA’s Technical Officer or designees for eligibility with regard to the PI, institution, and
technical content. If a proposal fails to meet one or more of the eligibility criteria, NASA reserves the right to disqualify that proposal from further review.

2) Proposals will be peer reviewed by experts external to NASA, which may include, but are not limited to: individuals working in STEM education in federal, state or local agencies, industry, at non-competing IEIs, philanthropic foundations, K-12 schools or districts, institutions of higher education, firms providing evaluation of educational projects, etc. Individuals not associated with a specific NASA TEAM II proposal are encouraged to register at NASA Informal Education’s “Become a Reviewer” website at https://informal.jpl.nasa.gov/reviewer.

3) Externally reviewed proposals and external reviewer comments will be provided to NASA Headquarters employees who will recommend to the Selecting Official which proposals have a higher or lower priority for funding relative to mission priorities. NASA subject matter experts will also handle any multi-agency STEM coordination concerns that arise.

NASA typically receives a far greater number of competitive or peer-reviewed proposals than available funds can support. External expert advice is a consideration for NASA when making selection decisions. For example, representatives from the affected NASA Mission Directorates and Offices review the external peer review findings and offer priority recommendations to the Selection Official. NASA seeks a balanced project award portfolio and considers factors including, but not limited to, geographic representation, NASA technical content, current awards, institutional representation, and participation by individuals traditionally underrepresented in STEM studies and careers.

6.3 Review of Applicants in the Federal Awardee Performance and Integrity Information System (FAPIIS)

Prior to making a Federal award with a total amount of Federal share greater than the simplified acquisition threshold (currently $150,000), NASA is required to review and consider any information about the applicant that is in the designated integrity and performance system (currently the Federal Awardee Performance and Integrity Information System – (FAPIIS)) accessible through the SAM (https://www.sam.gov) (see 41 U.S.C. 2313).

At its option, an applicant may review information currently in FAPIIS and comment on any information about itself that NASA previously entered.

NASA will consider any comments by the applicant, in addition to the other information in FAPIIS, in making a judgment about the applicant’s integrity, business ethics, and record of performance under Federal awards when completing the review of risk posed by applicants as described in 2 CFR 200.205, Federal awarding agency review of risk posed by applicants.

7. AWARD ADMINISTRATION INFORMATION

7.1 Notice of Award

NASA is committed to announcing selections and initiating awards as quickly as possible, consistent with ensuring the quality of the selection and award process and subject to the appropriation of Federal funds for the initiation of new awards.

Every effort will be made to announce selections within six (6) months from the proposal submission deadline. The initiation of the award typically occurs between 45 and 90 days after
the announcement of selections (see NASA Guidebook for Proposers, Section 6 Award Notification).

NASA has no obligation to evaluate ineligible proposals or those that do not meet all stated requirements of this NRA (see NASA Guidebook for Proposers, Section 5.6. Proposal Rejected by NASA Without Review).

In all cases, only after the Selecting Official’s approval is obtained, any proposals recommended for funding will be forwarded to the NASA Grant Officer for final eligibility review of business, financial, and policy implications and the processing and issuance of a grant or cooperative agreement.

NASA may choose to select only a portion of a proposed project, usually at a level of support that is reduced from that requested in the original proposal. NASA may also offer tentative selections in which NASA requests proposers to team (combine resources) on a joint project. Additionally, NASA may decide to award an effort for less than the full duration of the proposal. In these instances, the proposer will be able to accept or decline such a selection. If the proposer accepts such an offer, a revised budget and statement of work (proposal) may be required before NASA can initiate funding action on the proposal. If the proposer declines the offer of a partial selection or participation in a joint proposal, NASA may withdraw the offer of selection in its entirety.

Proposers are cautioned that only a NASA Grant Officer may make commitments, obligations or awards on behalf of NASA or authorize the expenditure of funds. The Grant Officer is also referred to as an Award Officer in the NASA Guidebook for Proposers. No commitment on the part of NASA should be inferred from technical or budgetary discussions with any NASA individual other than the Grant/Award Officer, including discussions with a NASA employee, contractor, or JPL employee including informal education managers, Mission Directorate employees, or support office coordinators. A PI and/or institution that makes financial or personnel commitments in the absence of a written instrument signed by a NASA Grant Officer does so at their own risk. Grant or cooperative agreement awards are made to the proposing institution, not to the proposed PI.

Notification of both the selected and the non-selected proposal will be consistent with the policy stated in the NASA Guidebook for Proposers, Appendix D. For selected proposals, a NASA Grants Officer, who is the only official authorized to obligate the Government, will contact the offeror’s business office. The NASA Shared Services Center (NSSC) will handle the negotiation and award of any grants or cooperative agreements. Any costs that the proposer incurs in anticipation of a grant or cooperative agreement award will be subject to the policies and regulations of 2 CFR 1800.209. Expenditures incurred within the 90-day period preceding the effective date of the award may be authorized by the recipient organization, but such expenditures are made completely at the recipient’s risk. Expenditures after the scheduled expiration date of the award may be made only to honor documented commitments made on or before the expiration date.

In order to announce selection decisions for grants and cooperative agreements as soon as is possible, even in the presence of budget uncertainties, the Selection Official may defer selection decisions on some proposals while making selection decision on others. If a Selection Official uses this option, then proposals will be either “selected”, “not selected at this time”, or “not selected”.
Proposals that are “not selected at this time” may be considered for a supplemental selection if and when circumstances allow. All proposers that receive “not selected at this time” will eventually be notified whether their proposal is selected through a supplemental selection, or is no longer being considered for a supplemental selection.

Copies of external reviews, excluding the names of the reviewers and other data covered by the Privacy Act, typically are made available to the AOR and/or PI when they log in to NSPIRES after the decision notice is sent. A point of contact (POC) for all peer review questions will be provided at the time of selection notification. In all cases, only after approval is obtained from the Selecting Official, any proposals recommended for funding will be forwarded to the NSSC for final eligibility review of business, financial, and policy implications and the processing and issuance of a grant or cooperative agreement.

Proposers that are not selected will be notified by electronic mail and offered a debriefing consistent with the policy in Appendix D of the NASA Guidebook for Proposers.

### 7.2 Process for Appeals Prior to Formal Requests for Reconsideration

This NRA is limited to awarding grants and cooperative agreements and will not result in the award of contracts except when required by statute or by NASA-specific regulations related to NASA Visitor Centers and Centers. Accordingly, the appeals and reconsideration processes under this NRA do not include protest rights either at the U.S. Government Accountability Office (GAO) or with the Agency, as defined in FAR 33.101. The provisions at FAR 52.233-2 (“Service of Protest”) and NFS 1852.233-70 (“Protests to NASA”) do not apply to this NRA.

A PI who is not satisfied with the explanation of the basis for the declination of its proposal may contact the NASA TEAM II Technical Officer in writing (delivered via e-mail, fax or regular mail) stating the reasons for requesting reconsideration of the declination and requesting an oral debriefing before initiating a formal Request for Reconsideration. (See Formal Requests for Reconsideration that follows.) The Technical Officer shall provide the debriefing expeditiously; i.e., usually within two weeks. Proposers shall send a first request for an oral debrief to teamii@jpl.nasa.gov and to:

Beverly Girten  
Director of Institutional Engagement and Co-Manager of TEAM II  
Office of STEM Engagement  
NASA Headquarters  
Washington, DC 20546  
Email: Beverly.E.Girten@nasa.gov

Appeals or reconsiderations will be limited to the original proposal submitted by the due date. Appeals or requests for reconsideration based on results or information obtained after the proposal was submitted or peer reviewed, for example, are not appropriate. Furthermore, because factors such as program budget and other priorities play a role in the selection process, reconsideration will not necessarily result in an award even if it is determined that there was an error in the peer review evaluation or in other evaluation processes.

### Formal Requests for Reconsideration

(i) Written Request for Reconsideration to Selecting Official. Following an oral debriefing with the NASA TEAM II Technical Officer, if the PI is still not satisfied that the proposal’s
evaluation process was fair and reasonable, substantively and/or procedurally, then that PI may request a formal reconsideration within 30 days of the debriefing. The Selecting Official will respond in writing to the Request for Reconsideration within 30 calendar days of receipt of the request. If additional time is required to prepare a response, an explanation of the need for more time will be given to the PI within 30 calendar days.

Following a response from the Selecting Official, if the PI is still not satisfied with the Selecting Official’s decision, the PI may request a formal reconsideration within 30 days of the deselecting Official’s decision. Electronic or faxed requests for formal reconsiderations will not be accepted. Formal requests shall only be submitted through the United States Postal Service (USPS) and shall: 1) detail the reasons for the reconsideration request; 2) be printed on institutional letterhead; 3) be co-signed by the PI and the AOR; and 4) be addressed to the Deputy Associate Administrator for STEM Engagement:

Deputy Associate Administrator for STEM Engagement
NASA Headquarters
Washington, DC 20546
Telephone: 202-358-0711

(iii) Appeals above the Deputy Associate Administrator for STEM Engagement (DAASE). Appeals above the DAASE shall be filed within 30 calendar days of receipt of that decision. The written appeal shall be submitted to the Associate Administrator for STEM Engagement or the Assistant Administrator of the Mission Directorate or Office issuing the solicitation. A response to the appeal will be provided to the PI within 30 calendar days.

7.3 Administrative and National Policy Requirements

Grant and cooperative agreement awards are subject to the regulations at 2 CFR Part 200 and the NASA Grant and Cooperative Agreement Manual (GCAM), located at https://prod.nais.nasa.gov/pub/pub_library/srba/index.html. The GCAM consists of eight sections that prescribe the policies and procedures relating to the award and administration of NASA grants and cooperative agreements.

7.4 Award Reporting Requirements

The reporting requirements for awards made through this NRA will be consistent with any applicable NASA and Federal regulations. Any additional requirements are specified in the activity description.

NASA utilizes a data management system for analyzing performance data. To facilitate data input into the system, the NASA TEAM II managers will collect performance and evaluation data via required reports (see Appendix L Potential Items in Special Language And / Or Requirements for TEAM II Awards). NASA award recipients shall provide and verify performance data for the awarded activity with the NASA TEAM II managers. Award recipients may also be required to respond to data calls and/or participate in future program evaluation data collection efforts at NASA OSE’s request. The NASA TEAM II managers will provide additional communications and guidance regarding data calls, future program evaluation efforts and timelines.

Details on NASA’s requirements will be made available at the time of award and communications from the TEAM II managers will be ongoing during the period of performance
Potential Items in Special Language And / Or Requirements for TEAM II Awards. Contributions of individual projects towards education performance will also be determined at that time. NASA’s multi-year Performance Goals (PGs) and Annual Performance Indicators in alignment to the NASA 2018 Strategic Plan are outlined in the NASA Volume of Integrated Performance (VIPer) report found on the NASA Budget website (https://www.nasa.gov/news/budget/index.html).

Project key personnel and/or participants are strongly encouraged to write and submit journal and proceedings articles and to participate in NASA-sponsored and other professional conferences. Proposers shall outline these plans in their project description. Award recipients may also be subject to reporting requirements under the NASA Plan for Increasing Access to Results of Federally Funded Research. Any such requirements will be identified in the Notice of Award.

If the Federal share of any award issued under this NRA is more than $10,000,000 over the period of performance, additional reporting requirements will apply. See 2 CFR 200 Appendix XII – Award Term and Condition for Recipient Integrity and Performance Matters (http://www.ecfr.gov/cgi-bin/text-idx?SID=4b63b1740bdb186d3bf5d346f5ddf42c&mc=true&node=ap2.1.200_1521.xii&rgn=div9)

8. POINTS OF CONTACT FOR FURTHER INFORMATION

Additional information can be obtained from the following sources:

NASA TEAM II Co-Manager
Leslie L. Lowes
Jet Propulsion Laboratory
California Institute of Technology
Pasadena, CA
TEAMII@jpl.nasa.gov

Points of Contact for NASA Mission Directorates, Centers, and Support Offices

Prospective proposers are encouraged to contact the NASA TEAM II POCs in the mission directorates, centers, and support offices for general information about NASA missions, science, technology, facilities, and education programs. See Appendix C. Questions relating to what is considered NASA scientific or technical content eligible for projects submitted to this solicitation should be directed to the appropriate contacts identified in the appendix.

The POCs in Appendix C are not eligible to be listed as key team members in any proposal submitted in response to this NRA: NASA employees and support contractors have the option (not obligation) to respond to a proposer who desires to estimate the costs to include non-specific NASA resources (human or material) in a proposed project. Such cursory budget-related assistance does not commit NASA to the proposed project. For more information regarding how to document a specific NASA commitment (for example a named individual or facility) to a proposed project, see Appendix F Statements of Commitment and Letters of Support.

A partnership with a relevant NASA entity (directorates, offices, centers (excluding JPL), etc.) and/or NASA employees and support contractors is required in order for an entity to submit a proposal to and to be selected for an award under the NASA TEAM II NRA.
Please note that NASA TEAM II POCs and other NASA or JPL personnel are not permitted to pre-review or co-write TEAM II proposals.

9. ANCILLARY INFORMATION

9.1 Announcement of Updates/Amendments to Solicitation

Additional programmatic information for this NRA may develop before the proposal due date. Such information will be added as a Frequently Asked Question (FAQ) or formal amendment to this NRA and posted at NSPIRES homepage at http://nspires.nasaprs.com/ (select “Solicitations” then “Open Solicitations” then “NNH19ZHA002N”). Prospective proposers shall regularly check this NRA’s homepage for updates concerning the activity(s) of interest. FAQs may be updated until the proposal due date.

When new FAQs are posted, a notice will be sent via the NASA Education Express listserv. To subscribe to NASA Express, go to: http://www.nasa.gov/education/express.

9.2 Access to NASA facilities/systems

Personal Identity Verification (PIV) of Grant/Cooperative Agreement Personnel

If any proposal personnel are expected to work on site at a NASA Center, they shall comply with the NASA Guidebook for Proposers and the Grant and Cooperative Agreement Manual, Appendix C. These sections provide information about recipients needing access to a NASA Center, facility, or computer system, or to NASA Technical Information, which requires “Personal Identity Verification of Recipient Personnel.”
APPENDIX A. Authentic STEM Experience Framework

**Definition:** An Authentic STEM Experience (ASE) is an experience inside or outside of school designed to engage learners directly or indirectly with practitioners and in developmentally-appropriate practices from the STEM disciplines that promote real-world understanding.

<table>
<thead>
<tr>
<th>Context:</th>
<th>ASE Characteristics:</th>
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<tbody>
<tr>
<td>• <em>Authentic STEM Experience</em> = the acronym STEM addresses the disciplines of Science, Technology, Engineering and Mathematics. Each discipline, and even within each discipline, has a distinct focus and methodology.</td>
<td>• <strong>Active-Doing:</strong> Directly engages in actions that model the distinctive practices of the STEM disciplines.</td>
</tr>
<tr>
<td>• <em>is an experience</em> = can be designed or impromptu</td>
<td>• <strong>Collaborative:</strong> Interacts/shares with a team and/or a practitioner/subject matter expert in the STEM disciplines.</td>
</tr>
<tr>
<td>• <em>inside or outside of school</em> = any environment is a possible ASE location</td>
<td>• <strong>Meet learners where they are:</strong> Developmentally and culturally appropriate learning experiences that illustrate or demonstrate the topic’s relevancy to the learners.</td>
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<tr>
<td>• <em>designed to engage learners</em> = interaction and active doing, when possible</td>
<td>• <strong>Appropriate learning approach/practice:</strong> Applies relevant disciplinary methodology(ies)/practices.</td>
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<tr>
<td>• <em>directly or indirectly</em> = the interaction is not always face-to-face</td>
<td>• <strong>Real-World Understanding:</strong> Connects applied and/or theoretical aspects of the STEM disciplines to the learner’s world.</td>
</tr>
<tr>
<td>• <em>with practitioners</em> = which includes teammates and/or experts/practitioners of any of the STEM disciplines</td>
<td>• <em>and in developmentally-appropriate</em> = the ASE will be designed to be age/skills appropriate.</td>
</tr>
<tr>
<td>• <em>practices from the STEM disciplines</em> = each discipline, and even within each discipline, has an identified process methodology which should be included in the experience</td>
<td>• <em>that promote real-world understanding</em> = the experience should provide a realization of how the discipline is used in actual activities applicable to current or future issues, problems and associated potential solutions</td>
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</table>
APPENDIX B. Additional Collaborating NASA Offices: Description of NRA-Related Work

Proposals should address one or more of the content areas summarized below and align these areas with their content and education priorities, as expressed below.

NASA Communications and Diversity Priorities

Examples (not a complete inventory) of priorities for the NASA Offices collaborating in this NRA are given below.

Office of Communications (OC)

At NASA, sharing information is a mandate within our founding legislation. Throughout our history, it has been a priority to make data from science missions, research, and other discoveries available for the benefit of the nation. The OC is responsible for finding ways to inform and directly engage the public in the work NASA is doing through a range of activities and methods, including media relations, multimedia products, social media, the web, special events, exhibits, speakers, strategic partnerships, and the NASA History Office. An American public that is knowledgeable and interested in science, aeronautics, and exploration will value the impact of advances in these fields that help maintain global competitiveness and a robust economy. Opening pathways for the public to actively participate in NASA’s activities is a new focus consistent with the philosophy of government transparency. OC seeks to include the general public in the adventure and excitement of our activities and tap into individual creativity and capabilities to enhance the public’s understanding and interest in science, discovery, and exploration. The OC is most interested in proposals that explore new tools, techniques and capabilities to reach the public and engage their interest, especially mechanisms through which the public can directly and specifically contribute to our missions. Of special interest are innovative proposals that encourage sustained engagement with NASA. NASA websites host a wealth of mission and program information, and specific program and project information through information-sharing portals. Start your exploration at http://www.nasa.gov.

Office of Diversity and Equal Opportunity (ODEO)

NASA has awarded, and currently manages, approximately $1 billion in grants to traditional and non-traditional education institutions across the country, including universities and museums. With this money comes the responsibility of ensuring that all program beneficiaries, including students, faculty, administrative staff, and visitors to science centers and museums, have an equal opportunity (EO) to participate and succeed in these federally funded programs, regardless of gender, race, age, ethnicity or disability. The NASA Office of Diversity and Equal Opportunity (ODEO) is responsible for advancing EO and diversity and inclusion (D&I) among the NASA workforce and our grantee institutions, including universities and colleges, museums, planetariums, science centers and space camps nationwide that benefit from NASA dollars. In turn, these recipients provide year-round cultural and informal educational opportunities for their communities and for visitors traveling nationally and internationally. NASA communicates its support for EO and diversity through a multi-pronged approach, consistent with our strategic objective to: “Attract and advance a highly skilled, competent, and diverse workforce, cultivate an innovative work environment, and provide the facilities, tools, and services needed to conduct NASA’s missions.” For example, the Agency supports diversity in STEM through its
participation in annual commemorations such as Black History Month, Hispanic Heritage Month, Women’s History Month, and more. The Agency also reaches out to underserved/underrepresented groups in STEM though its many STEM engagement/education programs, including the Minority University Research and Education Program. In addition, there is NASA ODEO’s MissionSTEM website (https://missionstem.nasa.gov), which is designed to offer the Agency’s grantees and their beneficiaries comprehensive information on complying with EO laws and diverse and advancing diversity efforts. For example, the site contains videos of NASA scientists and technologists working on many different kinds of STEM activities the Agency does that benefit society (see the NASA Innovations Impact the World page at: https://missionstem.nasa.gov/innovations/index.html). These are appropriate topics for proposals as long as there is a focus on at least one NASA Mission priority—not general STEM. For complete and current information visit: http://odeo.hq.nasa.gov/policy.html.

Note: This NRA is not intended as a primary fund source to meet accessibility compliance requirements.
APPENDIX C. Points of Contact for NASA Mission Directorates, Centers, and Support Offices

<table>
<thead>
<tr>
<th>NASA Mission Directorate Contacts</th>
<th>Space Technology Mission Directorate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Human Exploration and Operations</strong></td>
<td><strong>Stephanie Yeldell</strong></td>
</tr>
<tr>
<td>Mission Directorate</td>
<td>Education Lead</td>
</tr>
<tr>
<td>Elsie Weigel</td>
<td>NASA Headquarters</td>
</tr>
<tr>
<td>Education Lead</td>
<td>Phone: (202) 358-2345</td>
</tr>
<tr>
<td>NASA Headquarters</td>
<td><a href="mailto:stephanie.l.yeldell@nasa.gov">stephanie.l.yeldell@nasa.gov</a></td>
</tr>
<tr>
<td>Phone: (202) 358-2345</td>
<td></td>
</tr>
<tr>
<td><a href="mailto:Elsie.Weigel@nasa.gov">Elsie.Weigel@nasa.gov</a></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>NASA Center* and JPL Contacts</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Ames Research Center, CA</strong></td>
<td><strong>Johnson Space Center, TX</strong></td>
</tr>
<tr>
<td>Braxton Toy</td>
<td>Misti Moore</td>
</tr>
<tr>
<td>Education Specialist</td>
<td>JSC MUREP Manager</td>
</tr>
<tr>
<td>Phone: (650) 604-4726</td>
<td>Phone: (281) 483-6716</td>
</tr>
<tr>
<td><a href="mailto:william.b.toy@nasa.gov">william.b.toy@nasa.gov</a></td>
<td><a href="mailto:misti.m.moore@nasa.gov">misti.m.moore@nasa.gov</a></td>
</tr>
</tbody>
</table>

| **Armstrong Flight Research Center, CA** | **Kennedy Space Center, FL** |
| Miranda Fike                       | Denise Coleman                     |
| Education Program Specialist       | Education Programs Office          |
| Phone: (661) 276-2527              | Phone: (321) 867-4484              |
| Miranda.martin@nasa.gov            | Denise.Y.Coleman@nasa.gov          |

| **Glenn Research Center, OH**      | **Langley Research Center, VA**     |
| Stephanie Brown-Houston            | Gina Blystone                       |
| Education Programs Specialist      | Education Specialist                |
| Phone: 216-433-8006                | Phone: 757-864-7855                 |
| sbdbrown-houston@nasa.gov          | gina.r.blystone@nasa.gov            |

| **Goddard Space Flight Center, MD** | **Marshall Space Flight Center, AL** |
| Denise Davis                       | Frank Six                           |
| Informal Education Contact         | University Affairs Officer          |
| Phone: 301-286-4853                | Phone: (256) 961-0678               |
| denise.a.davis-konopka@nasa.gov    | frank.six@nasa.gov                  |

| **Jet Propulsion Laboratory, CA** | **Stennis Space Center, MS**        |
| Dr. Ota Lutz                      | Kelly Martin-Rivers                 |
| Education Specialist              | Education Director                  |
| Phone: (818) 354-3056             | Phone: (228) 688-3802               |
| Ota.L.Lutz@jpl.nasa.gov           | Kelly.E.Martin-Rivers@nasa.gov      |

*See next page for samples of NASA-unique STEM expertise of NASA Centers and JPL.

Note: The most up-to-date contacts at the Centers can be found at:

NASA STEM Engagement Program - NASA Field Center STEM Engagement Directors
http://www.nasa.gov/offices/education/contacts/cdirect.html
<table>
<thead>
<tr>
<th>NASA Headquarters and Shared Services Contacts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Office of Communications</strong></td>
</tr>
<tr>
<td>Nora Normandy</td>
</tr>
<tr>
<td>Program Manager, NASA Speaker’s Bureau</td>
</tr>
<tr>
<td>NASA Headquarters</td>
</tr>
<tr>
<td>Phone: (202) 358-0871</td>
</tr>
<tr>
<td><a href="mailto:Nora.Normandy@nasa.gov">Nora.Normandy@nasa.gov</a></td>
</tr>
<tr>
<td><strong>Office of Communications</strong></td>
</tr>
<tr>
<td>Cindy Steele**</td>
</tr>
<tr>
<td>Exhibits and Artifacts Manager</td>
</tr>
<tr>
<td>NASA Headquarters</td>
</tr>
<tr>
<td>Phone: (202) 358-3978</td>
</tr>
<tr>
<td><a href="mailto:cindy.steele-1@nasa.gov">cindy.steele-1@nasa.gov</a></td>
</tr>
<tr>
<td><strong>Office of Diversity and Equal Opportunity</strong></td>
</tr>
<tr>
<td>David R. Chambers</td>
</tr>
<tr>
<td>Program Planning and Evaluation Division</td>
</tr>
<tr>
<td>NASA Headquarters</td>
</tr>
<tr>
<td>Phone: (202) 358-2128</td>
</tr>
<tr>
<td><a href="mailto:david.r.chambers@nasa.gov">david.r.chambers@nasa.gov</a></td>
</tr>
<tr>
<td><strong>Office of Procurement</strong></td>
</tr>
<tr>
<td>Libby A. Romaguera</td>
</tr>
<tr>
<td>Grants Officer</td>
</tr>
<tr>
<td>NASA Shared Services Center (NSSC)</td>
</tr>
<tr>
<td>Phone: (228) 813-6160</td>
</tr>
<tr>
<td><a href="mailto:libby.a.romaguera@nasa.gov">libby.a.romaguera@nasa.gov</a></td>
</tr>
</tbody>
</table>

** Ms. Steele is available to provide advice on NASA exhibits or artifacts that might be touring and related questions; however, she will not provide letters of commitment.
Examples (not an exhaustive list) of STEM Expertise Represented at NASA Centers and JPL

<table>
<thead>
<tr>
<th>Center</th>
<th>Aerospace and technology (information, nano, bio-, astro-), space biology, aerospace and thermal protection systems, air traffic management.</th>
<th>Armstrong</th>
<th>Glenn</th>
<th>Goddard</th>
<th>JPL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ames</td>
<td>Lunar science, astrobiology, earth sciences, small satellites, technology (information, nano, bio-, astro-), space biology, aerospace and thermal protection systems, air traffic management.</td>
<td>Aerospace technology; airborne remote sensing and science missions; support for the space shuttle program.</td>
<td>Space flight systems, aeronautics propulsion and safety, space propulsion, power and energy conversion systems, nuclear systems, communications, human health in space.</td>
<td>Designs and builds spacecraft, science instruments and new technology to study the Earth, the Sun, our solar system, and the universe.</td>
<td>Designs and builds spacecraft, science instruments and new technology to study our solar system, the Earth, the Sun, and the universe; deep space communications.</td>
</tr>
<tr>
<td>Armstrong</td>
<td>--------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------</td>
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</tr>
<tr>
<td>Glenn</td>
<td>Space flight systems, aeronautics propulsion and safety, space propulsion, power and energy conversion systems, nuclear systems, communications, human health in space.</td>
<td>-----------</td>
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</tr>
<tr>
<td>Goddard</td>
<td>Designs and builds spacecraft, science instruments and new technology to study the Earth, the Sun, our solar system, and the universe.</td>
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</tr>
<tr>
<td>JPL</td>
<td>Designs and builds spacecraft, science instruments and new technology to study our solar system, the Earth, the Sun, and the universe; deep space communications.</td>
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<table>
<thead>
<tr>
<th>Johnson</th>
<th>Human space exploration including astronaut selection and training; spaceflight operations including International Space Station mission operations; and Orion exploration vehicle development.</th>
<th>Kennedy</th>
<th>Langley</th>
<th>Marshall</th>
<th>Stennis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kennedy</td>
<td>Space Launch System, Orion capsule, International Space Station, launch and facility infrastructure, expendable launch vehicles, and Commercial Crew Program</td>
<td>Aviation and space research for aerospace, atmospheric sciences, and technology commercialization.</td>
<td>The Center develops propulsion and space transportation systems, human exploration systems and operations, new materials and manufacturing technology, and scientific spacecraft, instruments, and research.</td>
<td>Rocket propulsion testing and partnering with industry to develop and implement remote sensing technology.</td>
<td>Rocket propulsion testing and partnering with industry to develop and implement remote sensing technology.</td>
</tr>
<tr>
<td>Langley</td>
<td>Aviation and space research for aerospace, atmospheric sciences, and technology commercialization.</td>
<td>-----------</td>
<td>-------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Marshall</td>
<td>The Center develops propulsion and space transportation systems, human exploration systems and operations, new materials and manufacturing technology, and scientific spacecraft, instruments, and research.</td>
<td>-----------</td>
<td>-------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Stennis</td>
<td>Rocket propulsion testing and partnering with industry to develop and implement remote sensing technology.</td>
<td>-----------</td>
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</tr>
</tbody>
</table>

Links to all NASA Centers and JPL: [http://www.nasa.gov/about/orgindex.html](http://www.nasa.gov/about/orgindex.html)
APPENDIX D. Performance Measurement and Evaluation: Definitions and Relationships

Program Performance Assessment

Both the executive branch and congressional committees need evaluative information to help them make decisions about the programs they oversee—information that tells them whether, and why, a program is working well or not.

In enacting the Government Performance and Results Act of 1993 (GPRA), Congress expressed frustration that executive and congressional decisionmaking was often hampered by the lack of good information on the results of federal program efforts. To promote improved federal management and greater efficiency and effectiveness, GPRA instituted a governmentwide requirement that agencies set goals and report annually on performance.

Many analytic approaches have been employed over the years by the agencies and others to assess the operations and results of federal programs, policies, activities, and organizations. Most federal agencies now use performance measures to track progress towards goals, but few seem to regularly conduct in-depth program evaluations to assess their programs’ impact or learn how to improve results. Individual evaluation studies are designed to answer specific questions about how well a program is working, and GPRA explicitly encourages a complementary role for these types of program assessment. The GPRA Modernization Act of 2010 aims to improve program performance by requiring agencies to identify priority goals, assign officials responsibility for achieving them, and review progress quarterly. Complete and accurate information on how well programs are working and why will be key to its success.

This glossary describes and explains the relationship between two common types of systematic program assessment: performance measures and program evaluation. Based on GAO publications and program evaluation literature, it was first prepared in 1998. Major contributors were Stephanie Shipman and Joseph Wholey. Please address any questions to Stephanie Shipman at (202) 512-4041 or shipman@gao.gov.

Nancy R. Kingsbury, Managing Director
Applied Research and Methods
Performance measurement is the ongoing monitoring and reporting of program accomplishments, particularly progress toward preestablished goals. It is typically conducted by program or agency management.

Performance measures may address the type or level of program activities conducted (process), the direct products and services delivered by a program (outputs), or the results of those products and services (outcomes).

A “program” may be any activity, project, function, or policy that has an identifiable purpose or set of objectives.

Program evaluations are individual systematic studies conducted periodically or on an ad hoc basis to assess how well a program is working. They are often conducted by experts external to the program, either inside or outside the agency, as well as by program managers.

A program evaluation typically examines achievement of program objectives in the context of other aspects of program performance or in the context in which it occurs. Four main types can be identified, all of which use measures of program performance, along with other information, to learn the benefits of a program or how to improve it.

<table>
<thead>
<tr>
<th>Types of Program Performance Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Performance Measurement</strong></td>
</tr>
</tbody>
</table>

| Program Evaluation | Program evaluations are individual systematic studies conducted periodically or on an ad hoc basis to assess how well a program is working. They are often conducted by experts external to the program, either inside or outside the agency, as well as by program managers. A program evaluation typically examines achievement of program objectives in the context of other aspects of program performance or in the context in which it occurs. Four main types can be identified, all of which use measures of program performance, along with other information, to learn the benefits of a program or how to improve it. |

<table>
<thead>
<tr>
<th>Types of Program Evaluation</th>
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<tbody>
<tr>
<td><strong>Process (or Implementation) Evaluation</strong></td>
</tr>
<tr>
<td><strong>Outcome Evaluation</strong></td>
</tr>
<tr>
<td><strong>Impact Evaluation</strong></td>
</tr>
<tr>
<td><strong>Cost-Benefit and Cost-Effectiveness Analyses</strong></td>
</tr>
</tbody>
</table>
APPENDIX E. References to Relevant Web Addresses

(Note: If a link does not load, try another browser or copy the title and plug it into your browser’s search window. This is often needed for pdf files.) This list is provided for the proposers’ convenience only. To the extent that non-NASA sites are provided in the listing below, NASA does not endorse or approve of the content contained in those sites.

NASA TEAM II

NASA

www.nasa.gov

NASA’s Moon to Mars

https://www.nasa.gov/specials/moon2mars

2018 NASA Strategic Plan


NASA STEM Engagement

http://www.nasa.gov/stem

Museums and Planetariums

http://www.nasa.gov/audience/foreducators/informal/mus-planetariums-index.html

NASA Museum Alliance

http://informal.jpl.nasa.gov/museum

NASA EXPRESS listserv

https://www.nasa.gov/stem/express

NASA Educational Resources Search

http://www.nasa.gov/education/materials/

NASA Teams Engaging Affiliated Museums and Informal Institutions (TEAM II) – FY2019 NASA Research Announcement


Competitive Program for Science Museums, Planetariums, and NASA Visitor Centers – Awardees’ Activities and Products

https://informal.jpl.nasa.gov/museum/CP4SMP

NASA Informal Education Peer Reviewer Volunteers

http://informal.jpl.nasa.gov/reviewer/

America’s Strategy for STEM Education (CoSTEM federal strategy for 2018-2022)

https://www.whitehouse.gov/wp-content/uploads/2018/12/STEM-Education-Strategic-Plan-
**Informal Science Education**


**Research & Evaluation – Informal Science Education**

Common Guidelines for Education Research and Development: A Report from the Institute of Education Sciences, U.S. Department of Education and the National Science Foundation, August 2013  

Designing Evaluations, Government Accountability Office, 2012  

Framework for Evaluating Impacts of Informal Science Education Projects - Report from a National Science Foundation Workshop  

Framework for Evaluating Impacts of Broadening Participating Projects - Report from a National Science Foundation Workshop  

Identifying and Implementing Educational Practices Supported by Rigorous Evidence: A User Friendly Guide  
[https://www2.ed.gov/rschstat/research/pubs/rigorousvid/rigorousvid.pdf](https://www2.ed.gov/rschstat/research/pubs/rigorousvid/rigorousvid.pdf)

Principal Investigator’s Guide: Managing Evaluation in Informal STEM Education Projects  
[http://www.informalscience.org/pi-guide](http://www.informalscience.org/pi-guide)

User-Friendly Handbook for Project Evaluation  

What Works Clearinghouse  
APPENDIX F. Statements of Commitment and Letters of Support

Please refer to the NASA Guidebook for Proposers for basic information about Statements of Commitment and Letters of Support related to acknowledgement of the intent to commitment to the proposed effort from every Co-PI, Co-I, and Collaborator, and “Letters of Affirmation”.

Note: If a particular contribution of a partnering institution, including any NASA Center, is essential to the performance of the proposed project, then a letter of commitment outlining and confirming that commitment, signed by a management official authorized to commit that institution, shall be submitted with the proposal’s required forms and certificates. Each commitment letter shall refer to the TEAM II NRA, and indicate agreement with the nature of the collaboration and state the specific resources being committed. At a minimum, leadership of the network(s) to be utilized in the proposed work shall provide a letter of support stating they have the agreement of the participating network members who will be participating/contributing/benefiting from the proposed work. Individual network members are not required to provide separate letters of support, however, if the support of a network member is vital to the success of the proposed work, a letter of support is strongly recommended.

Note: Due to potential conflict of interest situations, proposers shall not contact Museum Alliance personnel regarding a TEAM II proposal. (See Section 3.4 Interactions, Collaborations, and Partnerships with NASA.)

Letters of Support Involving Assets

A letter of support is required from the owner of any facility or resource that is not under the PI’s direct control, acknowledging that the facility or resource is available for the proposed use during the proposal period. For Government facilities, the availability of the facility to users is often stated in the facilities documentation or web page. Where the availability is not publicly stated or where the proposed use goes beyond the publicly stated availability, a statement, signed by the appropriate Government official at the facility verifying that it will be available for the required effort, is sufficient. Proposals selected for award will be required to provide information to the NSSC regarding sub-awards and other costs, as well as evidence of the fiscal fitness of their own organization.

NASA Centers receive and respond to many requests for education and public outreach activities that require no special resource commitments because 1) they are part of the regular business practices and are already in a Center’s budget or 2) such requests are handled on a case-by-case personnel availability basis. Entities seeking these types interactions with NASA can contact NASA directly, independent of proposal preparation. For example, the Speakers Bureau is a standard of NASA’s public communication and outreach programs. Details about requesting speakers can be found at: https://www.nasa.gov/about/exhibits/index.html.

Partnerships come in many varieties, including some that place significant resource demands on NASA in terms of facilities, equipment, personnel, etc., and others that do not have significant demands. TEAM II does not require that every proposal have a NASA Mission Directorate (MD) or Center as a “lettered” partner. It is up to each MD or Center to decide whether it desires or needs to partner through a formal letter of support, not the proposer. If appropriate, proposals can estimate a budget to cover NASA costs without having a NASA letter of support. It is important
for proposals to detail the nature of the requested or agreed-to partnership in the budget narrative and reference it as part of the 15-page project description.

The following is a sample template that can be adapted to request a NASA Center or other type of partner to complete and return to your organization for inclusion with the proposal:

TITLE: Approved Letter of Support from <insert name of NASA Center or proposed partner>

The following <Describe Asset(s) e.g. facilities access, persons, other> has been requested by <name of Principal Investigator> to support this proposal to the NASA Research Announcement <alpha-numeric identifier>. It is (or is not) possible to estimate the total cost to provide this asset. A non-binding estimate of the typical cost of one day’s provision of this asset is <insert amount>. The NASA Center (or other provider) has agreed to provide this asset (contingent or not contingent) on payment from the NRA’s funding.

For proposers who are unable to get a letter of support, the following template is provided to assist in justifying the budget request:

TITLE: Request Pending for Letter of Support from <insert name of NASA Center or proposed partner>

The date of my first request for a letter of support was <insert date>. The following <Describe Asset(s) e.g. facilities access, persons, other> has/have been requested by <name of Principal Investigator> to support this proposal to the NASA Research Announcement <alpha-numeric identifier>. Ultimately, the proposed partner did not reply to my request, but I estimated in the budget based on publicly available documents or calls to the proposed partner that the total cost to provide this asset to be <insert amount>.

OR

The proposed partner replied to my request that I do not need a letter of support to access this asset. I have included that reply as an attachment to this Pending Letter of Support to ensure reviewers understand that the level of cooperation proposed requires no special letter or support in this budget justification and narrative and no exceptional effort on the part of the requested collaborator/partner.

Letters of Support Involving Benefiting Participants or Venues

Proposals should address national or regional educational needs or challenges and offer solutions with potential for significant impact. Organizations/Individuals that are described in the proposal as cooperating with the proposing entity by providing access to students, teachers, families, out-of-school time providers, venues to host exhibits, or any other aspects of the project outside the control of the proposer should provide a letter of support from the benefiting organization or entity. These letters of support should describe (using reliable and verifiable numbers) the anticipated participant diversity, the means to provide access to the proposed benefiting participants and whether there are any plans for this benefiting organization to study the impact of the partnership. For example, is a school or school system going to provide transportation to the proposed project or is the school system asking the project to pay for that service? What tangible benefit or measurable impact does the cooperating organization expect from the
proposed project if it is selected? Has the proposed benefiting venue or organization reviewed the proposal? These letters should be as detailed as possible to substantiate the proposed project.

**Letters of Support or Reports Involving Evidence-Based Needs**

All proposals should address substantiated national or regional educational needs or challenges (e.g., through an existing needs assessment or other evidence). In addition to clearly summarizing in the proposal’s project description the statistics for who will benefit, letters from third-party experts who will be involved in the project’s evaluation or impact assessment, if available, or whose reports inspired the proposed project can be included. The letters of support for documenting evidence-based needs or research and/or evaluation should be appropriate to the proposed effort.

**Letters of Endorsement or Affirmation from Elected Officials or Others**

NASA uses peer reviewers and internal experts to evaluate proposals based on the stated review criteria outlined in this NRA. The NRA managers do not acknowledge or respond to letters of endorsement or affirmation, and the reviewers do not see such letters. NASA’s Office of Legislative Affairs responds to letters of affirmation from members of Congress and other elected officials. The Privacy Act and NASA procurement rules prohibit the discussion regarding the content of any proposal under review or declined without the PI or AOR participating.
APPENDIX G. Special Advisory on NASA Grant Budgets and Policy

The government-wide regulations for awarding and administering grants and cooperative agreements with educational and non-profit organizations and State, local, and Indian tribal governments are set forth in the Code of Federal Regulations (CFR) 2 CFR 200 and are supplemented by NASA regulations provided in 2 CFR Part 1800 (see https://prod.nais.nasa.gov/pub/pub_library/srba/index.html).

Proposers are responsible for understanding and complying with the NASA Grant and Cooperative Agreement Manual. Please note, that all the requirements of the Manual related to a particular subject matter/question are applicable and are not limited to any of the noted excerpts below. The following contains answers to frequently asked questions that are provided for your convenience. Unless otherwise specified, experts and provisions provided below are available at: https://prod.nais.nasa.gov/pub/pub_library/srba/index.html.

Question #1: Are there any specific instructions for what to put in the budget narrative?
Answer #1: Please refer to NASA Guidebook for Proposers, Section 3.18 Proposal Budget with Budget Narrative and Budget Details and Appendix D. (https://www.hq.nasa.gov/office/procurement/nraguidebook/)

Question #2: Is Participant Travel Permitted to Technical Conferences? What about International Travel?
Answer #2: The Office of STEM Engagement recognizes that travel to technical conferences is valuable; however, it is important for the proposer to fully justify travel requests in its budget. Requests for support for International Travel are subject to scrutiny and any proposal exclusively limited to funding participants to attend Technical Conferences is unlikely to be funded. All travel requests shall be included in the budget justification with as much detail as possible (e.g., name of the Traveler or in the absence of the name the Traveler’s role in project and role during International Travel, including an estimated number of any students to be supported.) If the Traveler’s name is unknown at the time of the proposal submission, explain why specific traveler data is not available.

Question #3: Does equipment or software or other intellectual property purchased, fabricated or valued at $5000 or more belong to the awarded institution or to NASA?
Answer #3: Generally it belongs to the awarded institution unless NASA through the NSSC makes different provisions at the time of actual award. Since recipients are being provided federal funding, NASA will exercise its rights appropriately.

Question #4: Can we use NASA funds to buy food as part of project’s implementation strategy, such as at our workshops for adults or to ensure the safety or participation by youth?
Answer #4: There are cases where the purchase of food is permissible. For example, if the primary purpose of the workshop is to disseminate technical information beyond the recipient and is necessary and reasonable for the performance of the grant, allowable costs may include the cost of meals and refreshments. During the final business review of a selected proposal, the NSSC will evaluate whether any proposed food costs are reasonable. See 2 CFR § 200.432. (https://www.gpo.gov/fdsys/pkg/CFR-2014-title2-vol1/pdf/CFR-2014-title2-vol1-sec200-432.pdf)
APPENDIX H. Proposal Element Details
H.1 Project Description

The Project Description shall reflect the unique ability of the lead institution and its partners to further the goals and objectives stated in Section 1.3.1. NASA encourages proposals to clearly and concisely illustrate the alignment with NASA’s 2018 Strategic Plan and the NASA and federal education priorities and strategic directions. The Project Description shall contain, at a minimum, the following elements: Proposal Element Details: (1) Relevance to NASA’s and this NRA’s Objectives, (2) Technical Project Plan, (3) Management and Evaluation; and (4) Resources.

The Project Description is limited to 15 pages.

Proposers are expected to provide sufficient detail to enable review by persons who are knowledgeable in, but not necessarily specialists in, the proposed technical area. The reviewers may include personnel from NASA, individuals working in federal, state or local agencies, industry, philanthropic foundations, K-12 and institutions of higher education, firms providing evaluation of educational projects, and all types of non-competing IEIs.

Relevance to NASA’s and this NRA’s Objectives:

a) describe the relevance of the proposed work to NASA’s research and technology development priorities and the alignment with the proposed primary NASA Mission Directorate; other Mission Directorate(s) and Offices; NASA’s Strategic Plan and federal education priorities and strategic directions; this NRA and its themes/priorities; and

b) describe the plans and expectations for long-term growth and sustainability, including participants’ connection to other NASA STEM engagement opportunities.

Technical: Provide a technical project plan that describes in detail:

a) the proposed specific goals and objectives; the target audience(s); the use of NASA content and resources; the expected outcomes; methods, approaches, concepts, or technologies to be used; and the potential impact of the proposed project.

b) the proposing institution’s capabilities, related experience, facilities, techniques, or unique combinations of these that are integral factors for achieving the proposal’s objectives, and if applicable, present evidence of past successes in NASA-funded informal education activities;

c) the qualifications, capabilities, and experience of the proposed PI and all other key personnel who are proposing to help achieve the proposal’s objectives;

d) the relationship of the proposed work to the state-of-the-art in the field, including any unique and innovative methods, approaches, concepts, or advanced technologies and evidence-based strategies to be used, and how they will enhance the expected outcomes; and

e) any plans, if applicable, for technology transfer or commercial products development and dissemination.

Management and Evaluation:

a) Present the proposed organizational and management structure of the project, including:
   i) reporting structure of the proposed project within the IEI; ii) leadership experience of
the proposed IEI Project Director; iii) key personnel; iv) future staff positions committed
to the proposed project; and v) the approach(es) to build infrastructure that support
NASA’s education/STEM engagement objectives, federal education priorities and
strategic directions;

b) Describe, in a partnership and network plan, any network and other partnerships or
mechanisms to build partnerships with other IEIs, colleges and universities, industry,
community partners, NASA, and/or other government agencies to enhance the ability to
achieve its objectives or in order to obtain essential services not otherwise available; the
network description should outline the purpose, structure, and membership of the
required network, and its demonstrated prior work and success in reaching the intended
audience of the proposal; how the network and partnerships will enhance the expected
outcomes; all networks and partnerships should have well-defined roles and
responsibilities;

c) Describe the plans for interaction and dissemination of information among project
investigators and partners;

d) Present in table format the planned number, including demographics, of participants or
beneficiaries of the proposed project and a pre-award baseline to which these numbers
will be compared;

e) Describe in detail the metrics that will be used to evaluate impact and outcomes, the
means by which the necessary information will be acquired and aggregated, and any
other means by which the IEI progress will be evaluated; include a logic model in table
format that identifies the project inputs, strategies, and beneficiaries, and expected
outputs and outcomes. The outcomes should include a description of expected changes in
the beneficiaries’ knowledge, skills, behaviors, and/or attitudes; include the lead
evaluator’s qualifications and describe how they are independent of the project; describe
how the products generated during the project and the evaluation results will be shared.

f) If applicable, provide a description of how an IEI will obtain and maintain longitudinal
data to track learners and audiences (professional or public) relating to academic
progress, employment or community-based networking;

g) Describe the structure and membership of a group of external advisors (if appropriate),
and a project-level evaluation plan performed by an independent evaluator; and

h) Describe the plans for dissemination of results externally beyond the project team and
institutions.

**Resources:**

a) Describe the resource plan for the award period, indicating the approach for distributing
funds among the various proposed activities, including any sub-awards. Indicate any
measures that have been taken to gain cost savings or efficiencies;

b) Describe any existing facilities and equipment available to the project, and justify the
need for any additional major equipment purchases or facilities upgrades; and

c) Describe the relationship of the proposed project to the IEI’s long-term strategic plan for
institutional development and research.
H.2 Budget

The budget format in NSPIRES is divided into two sections: 1) the Budget Justification: Narrative and 2) the Budget Justification: Details.

The first line of the Budget Justification Narrative shall indicate that the proposer requests a cooperative agreement or, in the case of proposals from NASA Visitor Centers, a task order, intra-agency transfer of funds, or other commercial agreement.

Identify the number of trips, duration of each trip, air fare, per diem, rental car expenses, etc. Justify any network and partnership roles in the budget justification narrative and include sufficient detail as to the assets the partner brings to the project or, if appropriate, a detailed estimated budget for a subaward.

Proposers shall provide sufficient budget justification and data to allow the peer reviewers to appropriately evaluate the cost realism, reasonableness, and acceptability of the proposed effort. The proposal shall contain sufficient cost detail and supporting information to facilitate a speedy evaluation and award. Dollar amounts proposed with no detail or explanation (e.g., merely stating Equipment: $5,000 or Labor: $23,000) may cause delays in funding if the proposal is selected. The proposed costing information shall be sufficiently detailed to allow the Government to identify cost elements for evaluation purposes. Each category shall be explained. Proposers should exercise prudent judgment since the amount of detail necessary varies with the complexity of the proposal.

Direct labor costs shall be separated by titles or disciplines such as PI and clerical support, with percent of time. Estimates shall include the basis, such as currently paid rates or outstanding offers to prospective employees. With regard to other costs, each significant category shall be detailed, explained, and substantiated. For example, proposed equipment purchases shall specify the type of equipment, number of units, and unit cost. Requested travel allowances shall include the number of trips, duration of each trip, air fare, per diem, rental car expenses, etc.

Proposers requesting access to NASA technical services or materials shall contact the NASA Centers (excluding JPL) from which services or materials will be requested in order to ascertain the availability and anticipated costs of such services or materials (see Appendix C: NASA Points of Contact).

If contact with a NASA Center or Mission Directorate or Office at NASA Headquarters gets no response, document the details of the requested NASA assets and the attempts to reach NASA within the budget justification of the proposal. Most costs that NASA Centers incur for the use of facilities and contracted technical support are expected to come from non-TEAM II funds.
APPENDIX I. Identification of Entities as NASA Visitor Centers Special
Guidance: STEM Engagement Activities and NASA Visitor Centers

The purpose of this Section is to define the only entities eligible to identify themselves as a
NASA Visitor Center (VC) on the Program Specific Data sheet required by this NRA. As of the
issuance date of the NRA, NASA has not issued a policy directive or policy requirement or
separate rules under the Code of Federal Regulations (CFR) to establish common visitor center
criteria. If any CFR or NPD is issued following the publication of this NRA, it will apply.

For the purposes of this NRA there are nine NASA Centers excluding JPL. The following
institutions may identify as a NASA Visitor Center on the Program Specific Data Form:

- Ames Research Center (ARC) – NASA Ames Exploration Center, an Ames Facility.
  http://www.nasa.gov/centers/ames/home/exploration.html
- Armstrong Flight Research Center (AFRC) – The inside-the-gate federal VC.
- Langley Research Center (LaRC) – LaRC’s VC is the Virginia Air and Space Center,
  which is a 501(c)(3), not a NASA facility or located on NASA property.
  http://www.vasc.org/
  Virginia Air and Space Center (not LaRC) is eligible to apply as the designated VC.
- Goddard Space Flight Center includes Wallops Island Visitors Center (GSFC) – Both are
  NASA facilities and located on NASA property and are eligible to submit a proposal.
  GSFC VCs have two home pages.
  http://www.nasa.gov/centers/goddard/visitor/home/index.html
  http://sites.wff.nasa.gov/vc/
- Glenn Research Center (GRC) – Existing VC partner is Great Lakes Science Center
  (GLSC) established by a Space Act Agreement signed by GRC. GLSC is a 501(c)(3) that
  is not a NASA facility or located on NASA Property.
  http://www.greatscience.com/
  GLSC (not GRC itself) is eligible to apply as the designated VC.
- Stennis Space Center (SSC) – Existing VC partner is Infinity Science Center at NASA
  Stennis Space Center, a private 501(c)(3) that is located on NASA property and
  established as the VC under the Space Act.
  http://www.visitinfinity.com/
  Infinity (not SSC itself) is eligible to apply as the designated VC.
- Marshall Space Flight Center (MSFC)—Existing Partner is the U.S. Space & Rocket
  Center (USSRC), a state of Alabama-owned entity that is not a NASA facility or located
  on NASA property.
  http://rocketcenter.com/
  USSRC (not MSFC itself) is eligible to apply as the designated VC.
- Johnson Space Center (JSC) – Existing Partner is Space Center Houston (SCH), a private
  501(c)(3) facility on NASA property established under the Space Act.
  http://www.spacecenter.org/
  SCH (not JSC itself) is eligible to apply as the designated VC.
- Kennedy Space Center (KSC) – Existing Partner Kennedy Space Center Visitor Complex
  (KSCVC) has operated for more than 43 years as a concession activity. As such, no
  appropriated dollars are received for its development, operation or maintenance. All
  revenues are generated through the sale of admission, food, retail and education programs
without cost to the federal budget. (Source: [http://www.nasa.gov/centers/kennedy/news/releases/2010/release-20100212c.html](http://www.nasa.gov/centers/kennedy/news/releases/2010/release-20100212c.html).) KSCVC (not KSC itself) is eligible to apply as the designated VC.

Federal, Non-Concessionary NASA Visitor Centers: Limitation on Funds and Principal Investigator Status

While Federal agencies are not solicited by this NRA, at the time of issuance of this NRA, ARC, AFRC and GSFC represent a total of four federal NASA VCs. NASA’s federal VCs operated by these NASA Centers GSFC, ARC, and AFRC are listed in this appendix and are eligible to directly apply to this NRA via its sponsoring Center. Any funds provided to these federal NASA VCs are to be obligated and costed in the fiscal year of award, or, if appropriated as two-year funds, in the following fiscal year unless the submitted proposal includes a detailed sub-award to a non-federal third party.

A NASA employee who is a director, manager, or leader for a federal NASA VC shall not request salary support in the proposal. Salary support for a contract employee directing a federal NASA VC is capped at 50% of their salary; requests for salary support are strongly discouraged. If any federal VC, manager contract or NASA employee, is not available or has not been designated by a Center, then the NASA employee who represents ARC, AFRC or GSFC on NASA’s Communications Coordinating Council or CCC may submit the proposal as the PI. Again, no salary support for NASA employees shall be requested. A Center’s member to the NASA STEM Engagement Council may substitute for a CCC member if that appointment is made in writing by the Center Director and is documented in the proposal.

Peer Review of NASA Visitor Center Proposals under TEAM II

VC proposals will be reviewed first by JPL and then by a NASA Headquarters employee or the NRA Selecting Official for compliance with the NRA. If found compliant, the proposals will be reviewed by experts external to NASA along with proposals submitted by eligible IEIs, and then by NASA experts as described in Section 6. Proposal Evaluation and Selection.
APPENDIX J. Guidance on Resolution for Pre-Submission Eligibility Questions

Neither NSPIRES nor Grants.gov can prevent any entity of any status (eligible or non-eligible) from submitting a proposal in response to this NRA. Unlike some other federal or private grant-making agencies, the key personnel working with this NRA will not pre-review proposal ideas nor pre-determine eligibility prior to final proposal submissions.

NASA cannot provide case-by-case advice to a potential proposer regarding whether or not any organization should submit a proposal to this NRA. The reason NASA does not provide pre-submission confirmation of organization eligibility is that there are three eligibility criteria: 1) institutional or organizational, 2) PI, and 3) technical content area and theme/priorities. For example, there may be cases where an organization may be eligible to apply through the creation of a new DUNS number or a +4DUNS, but does not have a position or person that can meet the PI eligibility criteria that requires ability to attest to the applicant entity’s fiscal health.

NASA will review eligibility issues only for full proposals available for review via NSPIRES or Grants.gov. NASA will not transcribe ineligible proposals submitted via Grants.gov. NASA expects pre-submission eligibility issues to be raised to the proposing organization’s highest leadership; e.g., Boards, AOR, legal counsel, chief financial manager, President, etc., who are qualified to certify an organization’s type and PI status for federal funding. Please carefully review Section 3. Eligibility with an AOR, legal counsel and a proposing agency’s leadership to determine whether or not the entity should seek to propose as a lead institution, as a sub-award, or both.

NASA does not discuss formally or informally or provide guidance or advice to an organization regarding how to manage a proposal submission to this NRA. NASA also does not assist ineligible organizations seeking help to identify an eligible partner that can submit a proposal. Furthermore, NASA does not assist eligible proposers to find non-NASA partners or assets.

Eligible proposals shall focus on the technical topic area that is eligible for this NRA - which is a subset of those identified by the NASA Authorization Act of 2005 for museums - in combination with the theme/priority described in Section 1.3.1.1.
APPENDIX K. Principal Investigator Criteria Details

Because NASA TEAM II limits submissions to one lead proposal per institution, NASA expects each IEI’s senior executive to serve as PI in an appropriate, albeit sometimes limited, capacity for proposal development and to negotiate any subsequent award. NASA does not expect PIs to perform daily management of a funded project unless appropriate to the proposed project. A proposal may designate another individual as the project’s team leader or co-investigator (Co-I) to manage implementation.

Only senior executives for an entire organization have the signatory authority necessary to commit intellectual and financial resources to TEAM II projects. A senior executive with authority to commit financial assets is qualified to monitor a NASA grant’s reporting requirements, particularly as being able to attest to the fiscal health and stability of the proposing organization’s support. Given the limited funding available in the current economic environment, the PI and the AOR shall certify as to the financial health of the proposing organization to carry out the proposed project at the time of selection. PIs shall meet all of the following criteria at the time the proposal is submitted:

1) Be an employee (this includes individuals serving on a contract or as volunteers on an unpaid basis) of the eligible applicant institution;
2) Be the President, Vice President, Chief Executive Officer, Chief Financial Officer, Chairman of the Board, Superintendent of Schools or similarly ranking executive from the eligible institution (e.g. Planetarium Director, Director of Sponsored Research) who can commit the institution’s intellectual and physical assets to the proposed project; and
3) Have oversight for the fiscal health or fitness of the applicant organization or institution, such as but not limited to: responsibility for ensuring the organization has had a recent and appropriate audit, and ability to answer questions about the organization’s accounting and timekeeping systems.

This requirement will remain in place for the period of performance for any award.

NASA expects pre-submission eligibility issues to be raised to the proposing organization’s highest leadership; e.g., Boards, AOR, legal counsel, chief financial manager, President, etc., who are qualified to certify an organization’s type and PI status for federal funding. Please also refer to Appendix J Guidance on Resolution for Pre-Submission Eligibility Questions.
APPENDIX L. Potential Items in Special Language And / Or Requirements for TEAM II Awards

The following is a representative but non-exhaustive list of the types of items that could be included in the special award conditions section of the award.

- General cooperation with NASA, NASA partners or affiliates, other federal agencies or federally-funded projects: examples include (1) the NASA Museum Alliance, federal and non-federal NASA Visitor Centers, past and current TEAM II and CP4SMPVC awardees, current TEAM II awardees; (2) dissemination of evaluation reports, (3) NASA monitoring and evaluation efforts
- Annual, interim, and final project reporting to NASA: examples include what is outlined in this NRA Section 7.4 (details given below), and regular additional detailed reports to support NASA’s Office of STEM Engagement Performance Management System (OEPM)
- Other project communication: examples include (1) technical support from and reporting to the Museum Alliance and (2) communicating project results and evaluation methods to the broader informal education community
- Grantee public information and products: examples include (1) acknowledgement of NASA funding, (2) specifications for use of NASA insignia, (3) review and use by NASA of awardee’s STEM engagement/education grant products or communication materials
- NASA safety policy and mishaps and close call reporting associated with award funding

Details on annual, interim, and final project reporting:

- Semi-Annual Report (6 months prior to Anniversary Date)
  - Update NASA on activity progress, including the number of educators, students and parents served, the timing and frequency of class sessions, achievement highlights, outside funding and other items such as OEPM (i.e. generic questions about evaluation, status update about activity evaluation).
- Annual Report (60 days prior to Anniversary Date)
  - Provide an annual review of program progress, including the number of students and parents served, the timing and frequency of class sessions, and achievements
  - NOTE: At the end of the performance period, the Annual Report will be considered a Final Report, which will be due within 90 days of the expiration date of the grant or cooperative agreement.
- Evaluation Report (30 days after Anniversary Date, due annually)
  - Provide an updated logic model for the project evaluation.
  - Provide an annual assessment of the evaluation questions identified in evaluation plans using the methods and instruments previously identified.
  - NOTE: At the end of the performance period, the Evaluation Report shall provide the annual assessment of the evaluation questions along with a summary of the evaluation studies from both implementation years.
APPENDIX M. NASA TEAM II Program Specific Data Form

Announcement Number: NNH19ZHA002N

Each proposer (including those using Grants.gov) shall complete one Program Specific Data (or PSD) questionnaire. **WARNING**: Grants.gov does not have this PSD template. Grants.gov submitters should include the PSD response immediately before the proposal’s Table of Contents.

The NSPIRES questionnaire template **does not provide** unlimited text to ask or answer the questions/items. The purpose of this appendix is to give a preview of the requested items. Additionally, the use of bullets in questions or answers is not permitted within NSPIRES; for example, for readability purposes bullets are used below and will not be visible in NSPIRES. It is also possible that there will be minor inconsistencies (e.g. punctuation, italics) between the following text and what is provided in NSPIRES. The questions and answers submitted via NSPIRES is what reviewers use, so please read NSPIRES carefully.

**Item 1. Plus4-DUNS:**
Note: The NSPIRES proposal coversheet only accepts 9-digit DUNS numbers. If applying as an embedded Informal Education Institution (IEI), provide a valid 13-digit (+4DUNS) in the text box below. Otherwise, indicate "Not Applicable." Caution: Do not leave blank.

**Item 2. Certification of organizational eligibility to submit proposal to 2019 NASA TEAM II solicitation.** Check ONLY one:
- Museum or Planetarium
- NASA Visitor Center
- Youth Serving Organization
- Library

**Item 3. Submitting Organization’s URL:**

**Item 4. Select one or more Institution Type:**
- Air and space center
- Amateur astronomy group
- American Indian and Alaska Native Serving Institution (AIANSI)
- Aquarium
- Arboretum
- Asian American and Native American Pacific Islander-Serving Institution (AANAPISI)
- Association of eligible institutions as recognized by the Internal Revenue Service
- Association that includes eligible institutions and ineligible institutions
- Aviary
- Aviation museum
- Botanical garden
- Boys and Girls Club
- Children's museum
- Congressionally-authorized NASA memorial; e.g., Challenger Center
- College (4-year)
Community College
Community-based Organization
Hispanic-Serving Institution (HSI)
Historically Black College or University (HBCU)
K-12 School or School System
Library (school, local, regional)
Minority Serving Institution (MSI) (Title IV college or university)
National, state or local park
Natural history museum
Nature center
NASA Visitor Center (Federal)
NASA Visitor Center (non-Federal)
Observatory visitor center
Out-of-school-time organization
Parks and recreation department
Planetarium
Science-technology center
Scientific or engineering society
State, local or Federal museum
State, local, or Federally-recognized tribal government museum or planetarium
Theater or auditorium dedicated to astronomical shows
Tribal College or University (TCU)
University
Youth-serving organization (national)
Youth-serving organization (independent)
Zoo
Unlisted Type/Other

Item 5. Explain “Other or Unlisted Institution Type” or say “Not Applicable”

Item 6. Select one NASA Mission Directorate or Office that has a content and/or educational priority(s) primarily applicable to the proposal (refer to NRA Section 1.3.1.1 and Appendix B).
Human Exploration and Operations Mission Directorate (HEOMD)
Space Technology Mission Directorate (STMD)
Related Equally to HEOMD and STMD—Major priorities from multiple mission directorates
Office of Communications (includes but is not limited to NASA Exhibits, History)
Office of Diversity and Equal Opportunity

Item 7. Select one or more NASA Mission Directorates or Offices with content and/or educational priority(s) of secondary applicability to the proposal (Refer to NRA Section 1.3.1.1 and Appendix B).
Human Exploration and Operations Mission Directorate (HEOMD)
Space Technology Mission Directorate (STMD)
Related Equally to HEOMD and STMD—Major priorities from multiple mission directorates
Office of Communications (includes but is not limited to NASA Exhibits, History)
Office of Diversity and Equal Opportunity

**Item 8. Activities with NASA Center(s) (NC)/JPL or NASA/JPL Visitor Center(s) (VC)—Select one or more:**

- No specific activity with any NC or VC
- Planned activities with NCs or VCs
- Confirmed activities with NCs or VCs
- Ames Research Center-ARC Mountain View, CA
- Exploration Center-ARC’s federal VC
- Armstrong Flight Research Center-AFRC Edwards, CA
- Glenn Research Center, OH
- Great Lakes Science Center-GRC’s non-Federal VC
- Goddard Space Flight Center-GSFC, Greenbelt, MD
- Wallops Island VC (federal)
- Greenbelt VC (federal)
- Maryland Science, Exploration, and Education Center at Goddard (non-federal)
- Jet Propulsion Laboratory-JPL Pasadena, CA
- von Karman Visitor Center-JPL’s non-federal VC
- Johnson Space Center-JSC TX
- Space Center Houston-JSC’s non-federal VC
- Kennedy Space Center-KSC FL
- KSC Visitor Center (federal concession)
- Langley Research Center-LaRC Hampton, VA
- Virginia Air and Space Center-LaRC’s non-federal VC
- Marshall Space Flight Center-MSFC Huntsville, AL
- U.S. Space and Rocket Center-MSFC’s non-federal VC
- Stennis Space Center-SSC Bay Saint Louis, MS
- Infinity Science Center –SSC’s non-federal VC

**Item 9. List any other NASA collaborators (individuals or facilities):**

**Item 10. List any other federal entity the proposed project intends to involve, and include the cities and states of any local/regional branches of the entity that are intended to be part of the involvement:**

**Item 11. List any non-federal institutional network and/or partner organizations (e.g., Boys and Girls Clubs, school districts, 4-H, etc.) and include the cities and states of the local/regional branches of the network and/or partner that are intended to be part of the involvement:**

**Item 12. If the project involves targeted activities predominantly serving populations underserved in STEM, or a partnership with such an institution, please indicate type or check not applicable.**
American Indian or Alaskan Native
Asian/Pacific Islanders
Black/African American
Hispanic or Latino
Native Hawaiian or other Pacific Islander
Rural
Urban/Inner City
Veterans
Women and/or Girls
American Indian and Alaska Native Serving Institution (AIANSI)
Asian American and Native American Pacific Islander-Serving Institution (AANAPISI)
Hispanic-Serving Institution (HSI)
Historically Black College or University (HBCU)
Minority Serving Institution (MSI) (Title IV college or university)
Tribal College or University (TCU)
Other underserved (give specific answer in Item 13)

Item 13. Explain “Other Underserved” from Item 12 or say “Not Applicable”

Item 14. Select one or more primary types of STEM engagement/educational product and/or program that this project is expected to utilize through the network or develop:

- Badge/project guide
- Course
- Citizen science/design challenge
- Educator guide/manual
- Educator professional development
- E-learning experience (distance learning/social media)
- Exhibit – permanent
- Exhibit – temporary or traveling
- Field trip
- Internship/apprenticeship (short-term STEM-related work/opportunities)
- Interpretive programming
- Kiosk interactive
- Museum outreach program
- Planetarium show
- Public special event
- Research/study publication
- SOS/spherical display/show
- Student guide
- Student or teacher research experience
- Symposium/conference
- Video/video clips
- Website
- Youth STEM learning program (summer, afterschool, weekend, etc.)
- Other
Item 15. Please provide your Data Management Plan (DMP). If research will not be conducted, or if research will be conducted but the proposer believes a DMP is not required because of the nature of the activity, then a statement should be included to that effect.

>>>End of NASA TEAM II PSD
APPENDIX N. Sample Proposal Cover Page

This form is electronically generated by NSPIRES upon submission by proposer’s AOR.

<table>
<thead>
<tr>
<th>NASA Proposal Number</th>
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**NASA Procedure for Handling Proposals**

This proposal shall be used and disclosed for evaluation purposes only, and a copy of this Government notice shall be applied to any reproduction or abstract thereof. Any authorized restrictive notices that the submitter places on this proposal shall also be strictly complied with. Disclosure of this proposal for any reason outside the Government evaluation purposes shall be made only to the extent authorized by the Government.

**SECTION I - Proposal Information**

- **Principal Investigator**
- **Email Address**
- **Phone Number**
- **Street Address (1)**
- **Street Address (2)**
- **City**
- **State/Province**
- **Postal Code**
- **Country Code**
- **Proposal Title**
- **Proposed Start Date**
- **Proposed End Date**
- **Total Budget**
- **Year 1 Budget**
- **Year 2 Budget**
- **Year 3 Budget**

**SECTION II - Application Information**

- **NASA Program Announcement Number**
- **NASA Program Announcement Title**
- **For Consideration By NASA Organization (the soliciting organization, or the organization to which an unsolicited proposal is submitted)**
- **Data Submitted**
- **Submission Method**
- **Grants.gov Application Identifier**
- **Applicant Proposal Identifier**
- **Type of Application**
- **Predecessor Award Number**
- **Other Federal Agencies to Which Proposal Has Been Submitted**
- **International Participation**
- **Type of International Participation**

**SECTION III - Submitting Organization Information**

- **DUNS Number**
- **CAGE Code**
- **Employer Identification Number (EIN or TIN)**
- **Organization Type**
- **Organization Name (Standard/Legal Name)**
- **Company Division**
- **Organization DUNS Name**
- **Division Number**
- **Street Address (1)**
- **Street Address (2)**
- **City**
- **State/Province**
- **Postal Code**
- **Country Code**

**SECTION IV - Proposal Point of Contact Information**

- **Name**
- **Email Address**
- **Phone Number**

**SECTION V - Certification and Authorization**

- **Certification of Compliance with Applicable Executive Orders and U.S. Code**
- **Authorized Organizational Representative (AOR) Name**
- **AOR E-mail Address**
- **Phone Number**
- **AOR Signature**
### Proprietary Information

Is proprietary/privileged information included in this application?

### International Collaboration

Does this project involve activities outside the U.S. or partnership with international collaborators?

No

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<th>Principal Investigator</th>
<th>Co-Investigator</th>
<th>Collaborator</th>
<th>Equipment</th>
<th>Facilities</th>
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Explanation:

### NASA Civil Servant Project Personnel

Are NASA civil servant personnel participating as team members on this project (include funded and unfunded)?

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FORM NRES-300 Version 3.0 Apr 08
### SECTION VIII - Other Project Information

#### Environmental Impact

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<th>Does this project have an actual or potential impact on the environment?</th>
<th>Has an exemption been authorized or an environmental assessment (EA) or an environmental impact statement (EIS) been performed?</th>
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</table>

Environmental Impact Explanation:

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Exemption/EA/EIS Explanation:

---

FORM NRES3-300 Version 3.0 Apr 09
SECTION VIII - Other Project Information

Historical Site/Object Impact

Does this project have the potential to affect historic, archeological, or traditional cultural sites (such as Native American burial or ceremonial grounds) or historic objects (such as an historic aircraft or spacecraft)?

Explanation:
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<th>Budget Cost Category</th>
<th>Funds Requested ($)</th>
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<td>A. Direct Labor - Key Personnel</td>
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</tr>
<tr>
<td>B. Direct Labor - Other Personnel</td>
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<tr>
<td>Total Number Other Personnel</td>
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</tr>
<tr>
<td>Total Direct Labor Costs (A+B)</td>
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</tr>
<tr>
<td>C. Direct Costs - Equipment</td>
<td>0.00</td>
</tr>
<tr>
<td>D. Direct Costs - Travel</td>
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</tr>
<tr>
<td>Domestic Travel</td>
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<tr>
<td>Foreign Travel</td>
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<td>E. Direct Costs - Participant/Trainee Support Costs</td>
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</tr>
<tr>
<td>Tuition/Feeding/Medical Insurance</td>
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<tr>
<td>Stipends</td>
<td>0.00</td>
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<tr>
<td>Travel</td>
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<tr>
<td>Subsistence</td>
<td>0.00</td>
</tr>
<tr>
<td>Other</td>
<td>0.00</td>
</tr>
<tr>
<td>Number of Participants/Trainees</td>
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<tr>
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<td>Materials and Supplies</td>
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</tr>
<tr>
<td>Publication Costs</td>
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<tr>
<td>Consultant Services</td>
<td>0.00</td>
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<tr>
<td>ADP/Computer Services</td>
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<td>Subcontracts/Compensation/Contractual Costs</td>
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<td>Equipment or Facility Rental/Use Fees</td>
<td>0.00</td>
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<tr>
<td>Alterations and Renovations</td>
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</tr>
<tr>
<td>Other</td>
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</tr>
<tr>
<td>G. Total Direct Costs (A+B+C+D+E+F)</td>
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</tr>
<tr>
<td>H. Indirect Costs</td>
<td>0.00</td>
</tr>
<tr>
<td>I. Total Direct and Indirect Costs (G+H)</td>
<td>0.00</td>
</tr>
<tr>
<td>J. Fee</td>
<td>0.00</td>
</tr>
<tr>
<td>K. Total Cost (G+J)</td>
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<tr>
<td>Total Cumulative Budget</td>
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### SECTIONS X - Budget

#### A. Direct Labor - Key Personnel

<table>
<thead>
<tr>
<th>Name</th>
<th>Project Role</th>
<th>Base Salary ($)</th>
<th>Cal Months</th>
<th>Acad. Months</th>
<th>Summ. Months</th>
<th>Requested Salary ($)</th>
<th>Fringe Benefits ($)</th>
<th>Funds Requested ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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Total Key Personnel Costs: 0.00

#### B. Direct Labor - Other Personnel

<table>
<thead>
<tr>
<th>Number of Personnel</th>
<th>Project Role</th>
<th>Cal Months</th>
<th>Acad. Months</th>
<th>Summ. Months</th>
<th>Requested Salary ($)</th>
<th>Fringe Benefits ($)</th>
<th>Funds Requested ($)</th>
</tr>
</thead>
<tbody>
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<td></td>
<td></td>
<td>Total Other Personnel Costs</td>
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</table>

Total Direct Labor Costs (Salary, Wages, Fringe Benefits) (A+B): 0.00
## SECTION X - Budget

<table>
<thead>
<tr>
<th>Start Date</th>
<th>End Date</th>
<th>Budget Type</th>
<th>Budget Period</th>
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</thead>
</table>

### C. Direct Costs - Equipment

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Equipment Item Description</th>
<th>Funds Requested ($)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Total Equipment Costs</td>
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</table>

### D. Direct Costs - Travel

<table>
<thead>
<tr>
<th></th>
<th>Funds Requested ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Domestic Travel (including Canada, Mexico, and U.S. Possessions)</td>
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<tr>
<td>2. Foreign Travel</td>
<td>$0.00</td>
</tr>
<tr>
<td></td>
<td>Total Travel Costs</td>
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</tbody>
</table>

### E. Direct Costs - Participant/Trainee Support Costs

<table>
<thead>
<tr>
<th></th>
<th>Funds Requested ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tuition/Fees/Health Insurance</td>
<td>$0.00</td>
</tr>
<tr>
<td>2. Gsprints</td>
<td>$0.00</td>
</tr>
<tr>
<td>3. Travel</td>
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</tr>
<tr>
<td>4. Subsistence</td>
<td>$0.00</td>
</tr>
<tr>
<td></td>
<td>Total Participant/Trainee Support Costs</td>
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Number of Participants/Trainees: | Total Participant/Trainee Support Costs | $0.00 |
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<thead>
<tr>
<th>F. Other Direct Costs</th>
<th>Funds Requested ($)</th>
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<td>1. Materials and Supplies</td>
<td>0.00</td>
</tr>
<tr>
<td>2. Publication Costs</td>
<td>0.00</td>
</tr>
<tr>
<td>3. Consultant Services</td>
<td>0.00</td>
</tr>
<tr>
<td>4. ADP/Computer Services</td>
<td>0.00</td>
</tr>
<tr>
<td>5. Subawards/Consortium/Contractual Costs</td>
<td>0.00</td>
</tr>
<tr>
<td>6. Equipment or Facility Rental/Use Fees</td>
<td>0.00</td>
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<tr>
<td>7. Alterations and Renovations</td>
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<table>
<thead>
<tr>
<th>G. Total Direct Costs</th>
<th>Funds Requested ($)</th>
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</thead>
<tbody>
<tr>
<td>Total Direct Costs (A+B+C+D+E+F)</td>
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<table>
<thead>
<tr>
<th>H. Indirect Costs</th>
<th>Indirect Cost Rate (%)</th>
<th>Indirect Cost Base ($)</th>
<th>Funds Requested ($)</th>
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<tbody>
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<td></td>
</tr>
<tr>
<td>Total Indirect Costs</td>
<td>0.00</td>
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<table>
<thead>
<tr>
<th>I. Direct and Indirect Costs</th>
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</thead>
<tbody>
<tr>
<td>Total Direct and Indirect Costs (G+H)</td>
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</tr>
</tbody>
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<table>
<thead>
<tr>
<th>J. Fee</th>
<th>Funds Requested ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fee</td>
<td>0.00</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>K. Total Cost</th>
<th>Funds Requested ($)</th>
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</thead>
<tbody>
<tr>
<td>Total Cost with Fee (I+J)</td>
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</tbody>
</table>
**SECTION X - Budget**

<table>
<thead>
<tr>
<th>Number of Personnel</th>
<th>Project Role</th>
<th>Cal. Months</th>
<th>Acad. Months</th>
<th>Summ. Months</th>
<th>Requested Salary ($)</th>
<th>Fringe Benefits ($)</th>
<th>Funds Requested ($)</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Total Number Other Personnel</td>
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<td></td>
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Total Direct Labor Costs (Salary, Wages, Fringe Benefits) (A+B)  
0.00
### SECTION X - Budget

<table>
<thead>
<tr>
<th>Start Date</th>
<th>End Date</th>
<th>Budget Type</th>
<th>Budget Period</th>
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#### C. Direct Costs - Equipment

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Equipment Item Description</th>
<th>Funds Requested ($)</th>
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<tbody>
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<td></td>
<td></td>
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#### D. Direct Costs - Travel

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<tr>
<th>Item No.</th>
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<tr>
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<tr>
<td>2. Foreign Travel</td>
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<tr>
<td>Total Travel Costs</td>
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#### E. Direct Costs - Participant/Trainee Support Costs

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<tr>
<th>Item No.</th>
<th>Funds Requested ($)</th>
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</thead>
<tbody>
<tr>
<td>1. Tuition/Fees/Health Insurance</td>
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</tr>
<tr>
<td>3. Travel</td>
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<tr>
<td>4. Subsistence</td>
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**Number of Participants/Trainees:**
## SECTION X - Budget

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<td>4. ADRP/Computer Services</td>
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<tr>
<td>6. Equipment or Facility Rental/User Fees</td>
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<tr>
<td>7. Alterations and Renovations</td>
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Total Other Direct Costs: 0.00

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<td>Total Direct Costs (A+B+C+D+E+F)</td>
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<table>
<thead>
<tr>
<th>H. Indirect Costs</th>
<th>Indirect Cost Rate (%)</th>
<th>Indirect Cost Base ($)</th>
<th>Funds Requested ($)</th>
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<tbody>
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<td>Cognizant Federal Agency: Total Indirect Costs</td>
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<table>
<thead>
<tr>
<th>I. Direct and Indirect Costs</th>
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<tr>
<td>Total Direct and Indirect Costs (G+H)</td>
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<table>
<thead>
<tr>
<th>J. Fee</th>
<th>Funds Requested ($)</th>
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<th>K. Total Cost</th>
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<tbody>
<tr>
<td>Total Cost with Fee (I+J)</td>
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</table>
## SECTION X - Budget

### A. Direct Labor - Key Personnel

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<thead>
<tr>
<th>Name</th>
<th>Project Role</th>
<th>Base Salary ($)</th>
<th>Cal. Months</th>
<th>Acad. Months</th>
<th>Summ. Months</th>
<th>Requested Salary ($)</th>
<th>Fringe Benefits ($)</th>
<th>Funds Requested ($)</th>
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</thead>
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**Total Key Personnel Costs:** 0.00

### B. Direct Labor - Other Personnel

<table>
<thead>
<tr>
<th>Number of Personnel</th>
<th>Project Role</th>
<th>Cal. Months</th>
<th>Acad. Months</th>
<th>Summ. Months</th>
<th>Requested Salary ($)</th>
<th>Fringe Benefits ($)</th>
<th>Funds Requested ($)</th>
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</table>

**Total Other Personnel Costs:** 0.00

**Total Direct Labor Costs (Salary, Wages, Fringe Benefits) (A+B):** 0.00

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*Form NRESS-300 Version 3.0 Apr 09*
## SECTION X - Budget

### C. Direct Costs - Equipment

<table>
<thead>
<tr>
<th>Item No</th>
<th>Equipment Item Description</th>
<th>Funds Requested ($)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Total Equipment Costs</td>
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</table>

### D. Direct Costs - Travel

<table>
<thead>
<tr>
<th>1. Domestic Travel (Including Canada, Mexico, and U.S. Possessions)</th>
<th>Funds Requested ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td>2. Foreign Travel</td>
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<tr>
<td></td>
<td>Total Travel Costs</td>
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</table>

### E. Direct Costs - Participant/Trainee Support Costs

<table>
<thead>
<tr>
<th>1. Tuition/Fees/Health Insurance</th>
<th>Funds Requested ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Stipends</td>
<td>0.00</td>
</tr>
<tr>
<td>3. Travel</td>
<td>0.00</td>
</tr>
<tr>
<td>4. Subsistence</td>
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<tr>
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<td>Total Participant/Trainee Support Costs</td>
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</table>

<table>
<thead>
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<th>Number of Participants/Trainees:</th>
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</table>
SECTION X - Budget

<table>
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<th>End Date</th>
<th>Budget Type</th>
<th>Budget Period</th>
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F. Other Direct Costs

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<thead>
<tr>
<th>Item Description</th>
<th>Funds Requested ($)</th>
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</thead>
<tbody>
<tr>
<td>1. Materials and Supplies</td>
<td>0.00</td>
</tr>
<tr>
<td>2. Publication Costs</td>
<td>0.00</td>
</tr>
<tr>
<td>3. Consultant Services</td>
<td>0.00</td>
</tr>
<tr>
<td>4. ADP/Computer Services</td>
<td>0.00</td>
</tr>
<tr>
<td>5. Subawards/Consortium/Contractual Costs</td>
<td>0.00</td>
</tr>
<tr>
<td>6. Equipment or Facility Rental/Use Fees</td>
<td>0.00</td>
</tr>
<tr>
<td>7. Alterations and Renovations</td>
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</tr>
<tr>
<td>Total Other Direct Costs</td>
<td>0.00</td>
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</tbody>
</table>

G. Total Direct Costs

| Total Direct Costs (A-B+C+D+E+F)                       | 0.00                |

H. Indirect Costs

<table>
<thead>
<tr>
<th>Cognizant Federal Agency:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect Cost Rate (%)</td>
<td>Indirect Cost Base ($)</td>
</tr>
<tr>
<td>Total Indirect Costs</td>
<td></td>
</tr>
</tbody>
</table>

I. Direct and Indirect Costs

| Total Direct and Indirect Costs (G+H)                  | 0.00                |

J. Fee

<table>
<thead>
<tr>
<th>Funds Requested ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fee</td>
</tr>
</tbody>
</table>

K. Total Cost

| Total Cost with Fee (I+J)                             | 0.00                |
**APPENDIX O. NASA TEAM II Policy on Late Proposals**

NASA does not pre-approve the submission of a late proposal. The decision to submit a late proposal is solely that of the Proposer, and it is then NASA’s decision whether to accept it. If NSPIRES is available for submissions, the site automatically captures the time that the system received the proposal. Proposals submitted later than 11:59 PM Eastern time on the due date of proposals are considered “LATE.” The NSPIRES system may prevent the submission of proposals after the deadline.

**Note:** Grants.gov does not provide real time confirmation that a proposal has been submitted on time or by the due date. A Grants.gov proposer may be able to finish a submission minutes or hours after the due date, but then may receive notification from Grants.gov hours or days later that the proposal missed the deadline. This NRA does not accept proposals that Grants.gov received after the proposal due date.

NSPIRES generates an automatic acknowledgement when proposals are submitted. The acknowledgement for on time and late proposals is the same and will resemble the following:

**Sample Acknowledgement of Submission**

-----Original Message-----
From: nspires@nasaprs.com
Sent: <Name of the day of the Week>, Name of Month, Date, Year <Message Time Hour:Minute>
To: <email address of submitter>
Cc: <email address of submitter>
Subject: NASA NSPIRES - Proposal has been submitted to NASA

The following proposal has been submitted for consideration of an award by NASA:
Proposal Number: xx-201?[EONS Appendix]-000X
Proposal Title: <Name as submitted by the AOR>
Submitting Organization: <Name that shows up in NSPIRES>
Authorized Organization Representative: First and then Last NAME
Principal Investigator: First then Last NAME
Date submitted: Numeric Month/ Numeric Day /Numeric Year Hour:Minute:Second
To log in to NSPIRES, click on this link: http://nspires.nasaprs.com/
If the above URL is not an active link, please cut and paste the entire URL into your web browser.

If you have questions or problems regarding this, or any other NSPIRES business, please contact the NSPIRES Help Desk:

E-mail: NSPIRES-HELP@nasaprs.com
Phone Support: (202) 479-9376
Hours: Monday through Friday, 8:00 AM to 6:00 PM EST/EDT

This message is being sent from an outbound-only mail server. Please do not reply to this message.
If a proposer does not receive a notice similar to the sample above after proposal submission, first check spam filters and junk boxes. If unable to locate the e-mail acknowledgement, then proposers shall contact the NSPIRES Help Desk or log in directly to NSPIRES to check a submission status.

Only the Selection Official or a designee may accept a late proposal for assignment to external review. Normally, late proposals are only considered for review if there is a practical way of reviewing the proposal along with the on-time proposals. If for some known or unknown reason an entity’s proposal was not submitted by the proposal due date, the Proposer shall send a detailed explanatory note via e-mail to NASA’s Support Contractor for this NRA:

NASA Research & Education Support Services
2345 Crystal Drive, Suite 500
Arlington, VA 22202
202-479-9030
202-479-0511 (fax)
Email: help@nasaprs.com

Decisions about each proposal submitted—either on time or late—will be communicated electronically (not by phone or personalized email) to each PI and AOR via NSPIRES. It is entirely possible that a late Proposer may not know whether it was accepted for review until all Proposers are notified approximately six months from the NRA's proposal due date.

When decisions resulting from the evaluation process for proposals are made, a computer-generated e-mail goes out requesting the PI/AOR to log in. It will resemble the following:

**Sample Decision Notice E-mail**

-----Original Message-----
From: nspires@nasaprs.com [mailto:nspires@nasaprs.com]
Sent: Name of Weekday, Month ??, 20?? H:Min PM/AM
To: NSPIRES-admin@nasaprs.com
Subject: NASA NSPIRES - Decision has been made.

A decision has been made by NASA for:
- Solicitation Number: NNH????????
- Solicitation Title: [EONS Appendix Reference]
- Acronym: [EONS Appendix Reference]
- Proposal Due Date: 0?/??/20??

You may access information regarding this decision by logging in to NSPIRES:

Decision information can be accessed in two ways:
- After logging in, the Principal Investigator selects the "Proposals" link, the "Submitted Proposals/NOIs" link, and then clicks on the proposal submitted to the solicitation identified above. The document(s) provided by NASA will be displayed under the heading "PI Information Package" located at the bottom of the "View Proposal" page.
- After logging in, the Authorized Organization Representative selects "Organization Mgmt" link and, from within the submitting organization, selects the "Organization Proposals"
link, the "Submitted Proposals" link and then clicks on the proposal submitted to the solicitation identified above. The document(s) provided by NASA will be displayed under the heading "PI Information Package" located at the bottom of the "View Proposal" page. If the above URL is not an active link, please cut and paste the entire URL into your web browser. If you have questions or problems regarding this, or any other NSPIRES business, please contact the NSPIRES Help Desk: E-mail: nspires-help@nasaprs.com Phone Support: (202) 479-9376 Hours: Monday through Friday, 8:00 AM to 6:00 PM EST/EDT

This message is being sent from an outbound-only mail server. Please do not reply to this message.

From the NASA Guidebook for Proposers, Section 5.1 (http://www.hq.nasa.gov/office/procurement/nraguidebook):

Proposals that are submitted late or fail to meet the minimum administrative requirements may be returned without further review.

Proposals submitted through NSPIRES may only be submitted by the AOR. NSPIRES automatically identifies any late proposals.

Proposals are reviewed to determine if they meet the minimum administrative requirements listed in the FA. These requirements usually include but are not limited to these factors:

- Proposal was submitted by due date(s);
- Proposer and proposing organization were eligible to submit a proposal;
- Proposal met the page, font and spacing limits; and
- Proposer or key personnel are not suspended or debarred from receiving Federal funding.


Allowances for Technical Problems

Proposers are advised in every NASA solicitation that it is their responsibility to begin the proposal submission process early enough to account for ubiquitous technical problems with computer systems and with the internet. If an emergency or unanticipated event interrupts normal Government processes so that proposals cannot be received at the Government office designated for receipt of proposals by the exact time specified in the solicitation, and urgent Government requirements preclude amendment of the solicitation closing date, the time specified for receipt of proposals will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume. An example might be an act of nature (e.g., hurricane or blizzard affecting NASA or a proposer's region) or an act of man (e.g., NSPIRES is offline). The failure of the proposing team to complete its proposal prior to the
deadline, for whatever reason, does not constitute a technical problem. The failure of the proposer to meet a known delivery deadline does not constitute a technical problem. Other circumstances that may constitute a technical problem will be reviewed on a case-by-case basis. The NASA Selection Official may declare a proposal “on time” if a proposal would have been received by NASA before the proposal deadline in the absence of the technical problem, if the technical problem cannot be reasonably anticipated and is beyond the reasonable control of the proposer, and if the proposer does not gain a competitive advantage through these circumstances.

Any Changes or Revisions to a Proposal After the Due Date make the Proposal Late:

It is not possible for a proposal to be updated, particularly the substance of a proposal, without NASA considering such revisions/updates as a late proposal. If a proposer wants to provide new material, revise, clarify or change or expand a submitted proposal, such a substantial update is akin to submitting a new proposal after the proposal’s due date. Changes or updates to basic descriptive data (e.g., a PI has retired or the submitting organization has a new President) are not changes to the proposal’s substance under the NRA; however, they cannot be reflected in the proposal submission either nor can they be considered in the review of the proposal. If during the course of the time between the proposal due date and decision announcement, there have been changes to the AOR and PI, please immediately notify the NSPIRES Support Contractor listed below for this NRA to confirm that the proposing organization will still be able to access NSPIRES.

Althia Harris
NASA Research & Education Support Services
2345 Crystal Drive, Suite 500
Arlington, VA 22202
202-479-9030
202-479-0511 (fax)
Email: help@nasaprs.com
APPENDIX P. Glossary of Abbreviations, Acronyms and Definitions

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AANAPISI</td>
<td>Asian American and Native American Pacific Islander-Serving Institution</td>
</tr>
<tr>
<td>AFRC</td>
<td>NASA Armstrong Flight Research Center, Edwards, CA</td>
</tr>
<tr>
<td>AIANSI</td>
<td>American Indian and Alaska Native Serving Institution</td>
</tr>
<tr>
<td>AOR</td>
<td>Authorized Organization Representative</td>
</tr>
<tr>
<td>APIs</td>
<td>Annual Performance Indicators</td>
</tr>
<tr>
<td>ARC</td>
<td>NASA Ames Research Center, Moffett Field, CA</td>
</tr>
<tr>
<td>ASE</td>
<td>Authentic STEM Experience</td>
</tr>
<tr>
<td>CAGE</td>
<td>Contractor and Government Entity Code</td>
</tr>
<tr>
<td>CBI</td>
<td>Confidential Business Information</td>
</tr>
<tr>
<td>CCC</td>
<td>NASA’s Communications Coordinating Council</td>
</tr>
<tr>
<td>CFDA</td>
<td>Catalog of Federal Domestic Assistance</td>
</tr>
<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
</tr>
<tr>
<td>Co-I, Co-PI</td>
<td>Co-Investigator, Co-Principal Investigator</td>
</tr>
<tr>
<td>COI</td>
<td>Conflict of Interest</td>
</tr>
<tr>
<td>CoSTEM</td>
<td>Committee on STEM Education</td>
</tr>
<tr>
<td>CP4SMPVC</td>
<td>Competitive Program for Science Museums, Planetariums, and NASA Visitor Centers</td>
</tr>
<tr>
<td>DAASE</td>
<td>Deputy Associate Administrator for STEM Engagement</td>
</tr>
<tr>
<td>DMP</td>
<td>Data Management Plan</td>
</tr>
<tr>
<td>DUNS</td>
<td>Data Universal Numbering System; a unique nine-digit sequence recognized as the universal standard for identifying and keeping track of over 100 million businesses worldwide</td>
</tr>
<tr>
<td>+4DUNS</td>
<td>A thirteen-digit DUNS number</td>
</tr>
<tr>
<td>DVI</td>
<td>Digital Visual Interface</td>
</tr>
<tr>
<td>EFT</td>
<td>Electronic Funds Transfer</td>
</tr>
<tr>
<td>EIN</td>
<td>Employer Identification Number</td>
</tr>
<tr>
<td>EO</td>
<td>Equal Opportunity</td>
</tr>
<tr>
<td>EPD</td>
<td>Educator Professional Development</td>
</tr>
<tr>
<td>EPSCoR</td>
<td>Experimental Program to Stimulate Competitive Research</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
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<td>--------------</td>
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<tr>
<td>F&amp;A</td>
<td>Facilities and Administrative</td>
</tr>
<tr>
<td>FAPIIS</td>
<td>Federal Awardee Performance and Integrity Information System</td>
</tr>
<tr>
<td>FAQ</td>
<td>Frequently Asked Questions</td>
</tr>
<tr>
<td>FAR</td>
<td>Federal Acquisition Regulation</td>
</tr>
<tr>
<td>FFRDC</td>
<td>Federally Funded Research and Development Center</td>
</tr>
<tr>
<td>FMR</td>
<td>Federal Management Regulation</td>
</tr>
<tr>
<td>FY</td>
<td>Fiscal Year (October–September; i.e., the Federal Fiscal Year)</td>
</tr>
<tr>
<td>GAO</td>
<td>Government Accountability Office</td>
</tr>
<tr>
<td>GCAM</td>
<td>NASA Grant and Cooperative Agreement Manual</td>
</tr>
<tr>
<td>GLSC</td>
<td>Great Lakes Science Center</td>
</tr>
<tr>
<td>GRC</td>
<td>NASA Glenn Research Center, Cleveland, OH</td>
</tr>
<tr>
<td>GSFC</td>
<td>NASA Goddard Space Flight Center, Greenbelt, MD</td>
</tr>
<tr>
<td>HEOMD</td>
<td>NASA Human Exploration and Operations Mission Directorate</td>
</tr>
<tr>
<td>HHS OHRP</td>
<td>Department of Health and Human Services Office of Human Research Protection</td>
</tr>
<tr>
<td>IEI</td>
<td>Informal Education Institution(s)</td>
</tr>
<tr>
<td>IRB</td>
<td>Institutional Review Board</td>
</tr>
<tr>
<td>HBCUs</td>
<td>Historically Black Colleges and Universities</td>
</tr>
<tr>
<td>HSI</td>
<td>Hispanic Serving Institutions</td>
</tr>
<tr>
<td>JPL</td>
<td>Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA</td>
</tr>
<tr>
<td>JSC</td>
<td>NASA Johnson Space Center, Houston, TX</td>
</tr>
<tr>
<td>KSC</td>
<td>NASA Kennedy Space Center, FL</td>
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<tr>
<td>KSCVC</td>
<td>Kennedy Space Center Visitor Complex</td>
</tr>
<tr>
<td>LaRC</td>
<td>NASA Langley Research Center, Hampton, VA</td>
</tr>
<tr>
<td>MA</td>
<td>Museum Alliance</td>
</tr>
<tr>
<td>MD</td>
<td>Mission Directorate</td>
</tr>
<tr>
<td>MSFC</td>
<td>NASA Marshall Space Flight Center, Huntsville, AL</td>
</tr>
<tr>
<td>MSI</td>
<td>Minority Serving Institution</td>
</tr>
<tr>
<td>MUREP</td>
<td>Minority University Research and Education Program</td>
</tr>
<tr>
<td>NASA</td>
<td>National Aeronautics and Space Administration</td>
</tr>
<tr>
<td>NFA</td>
<td>NASA Funding Announcement</td>
</tr>
<tr>
<td>NOAA</td>
<td>National Oceanic and Atmospheric Administration</td>
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</tbody>
</table>
DEFINITIONS

American Indian or Alaska Native: A person having origins in any of the original peoples of North and South America (including Central America) who maintains cultural identification through tribal affiliation or community attachment.

Asian: A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

Black or African-American: A person having origins in any of the Black racial groups of Africa.

Hispanic or Latino: A person of Mexican, Puerto Rican, Cuban, South or Central American, or other Spanish culture or origin regardless of race.

Native Hawaiian or Other Pacific Islander: A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

Targeted Disabled: A person having a physical or mental impairment that substantially limits one or more major life activities; who has a record of such impairment or who is regarded as having such impairment. (See the LEAD (Leadership for the Employment of Americans with Disabilities) pages at the U.S. Equal Employment Opportunity Commission, http://www.eeoc.gov/eeoc/initiatives/lead/why.cfm).
**White:** A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

**Underrepresented Minority:** Refers to persons from racial and ethnic groups whose enrollment in STEM education or participation in STEM professions is much smaller than that group’s representation in the general population. African Americans, Hispanics/Latinos, and Native Americans and Pacific Islanders currently fit this definition.