1. Scope of Program

1.1 Introduction

The New (Early Career) Investigator Program (NIP) in Earth Science is designed to support outstanding scientific research and career development of scientists and engineers at the early stage of their professional careers. The program aims to encourage innovative research initiatives and cultivate scientific leadership in Earth system science. The Earth Science Division (ESD) places particular emphasis on the investigators' ability to promote and increase the use of space-based remote sensing through the proposed research.

The NIP supports all aspects of scientific and technological research aimed to advance NASA’s mission in Earth system science (http://science.nasa.gov/about-us/science-strategy/). In research and analysis, the focus areas are:

- Carbon Cycle and Ecosystems,
- Climate Variability and Change,
- Water and Energy Cycle,
- Atmospheric Composition,
- Weather, and
- Earth Surface and Interior.

In Applied Sciences, the ESD encourages efforts to discover and demonstrate practical uses of NASA Earth science data, knowledge, and technology (see http://appliedsciences.nasa.gov). In technological research, the ESD aims to foster the creation and infusion of new technologies into space missions in order to enable new
scientific observations of the Earth system or reduce the cost of current observations (see http://esto.nasa.gov). The ESD also promotes innovative development in computing and information science and engineering of direct relevance to ESD. See Appendix A.1 for more detailed descriptions of the Focus Areas, themes in applied sciences, and related research topics of high priority to the ESD.

The proposed research project must be led by a single, eligible (see further description below for eligibility) investigator serving as the Principal Investigator (PI). Indeed, this individual must be the only essential team member; no Co-Investigators (Co-Is), paid or unpaid, are permitted. The NIP does not accept proposals with Co-PIs nor two types of PIs, such as Science PI and Institutional PI. Students and postdoctoral fellows may participate as paid team members. The proposed research may include collaborations. See the Guidebook for Proposers at http://www.hq.nasa.gov/office/procurement/nraguidebook/ for the definitions of Collaborator vs. Co-Investigator and descriptions of China-related restrictions.

This early career program, NIP in Earth Science, was established in 1996. The frequency of solicitation is currently every two years.

1.2 Eligibility

A NIP proposal PI must be a U.S. citizen or have lawful status of permanent residency (i.e., holder of a U.S. Permanent Resident Card, also referred to as the Green Card)¹. He/she must be a recent Ph.D. recipient, defined as having graduated on or after January 1 of the year that is no more than five years before the issuance date of this ROSES NASA Research Announcement (NRA) (i.e., after January 1, 2012; but see also third bullet below).

Institutions and organizations are encouraged to submit proposals under the NIP on behalf of their outstanding new faculty members or employees in Earth system science and associated applications, as long as the individuals are the proposed PIs.

To be eligible for an NIP award, proposed PIs must meet the following requirements:

1. Be employed at an institution in the U.S., its territories, or possessions, or the Commonwealth of Puerto Rico, which awards a baccalaureate or advanced degree in a field supporting the objectives of NASA Earth system studies, or be employed at any nonprofit research institution or other nonprofit organization that performs a significant amount of work in fields of research supporting the objectives of NASA’s Earth Science Program. Such organizations could include museums, observatories, Government or nonprofit research laboratories, as well as nonprofit entities in the private sector.

2. Be in tenure- or nontenure-track positions in either teaching or research or both, as long as the employing institution assumes the responsibility of submitting the proposal with the individual as the proposed PI.

¹ The prospective PI may submit a proposal to NIP if he or she is reasonably certain that the Green Card will be in hand soon after the proposal submission. The evaluation of proposals takes approximately five months, and awards are made within a couple of weeks after the announcement of selections. NASA will not award a grant if the submitting institution cannot certify the PI’s eligibility.
3. Despite being more than five years beyond the receipt of their Ph.D. degrees, individuals who have interrupted their careers for reasons such as family leave or serious health problems may also be eligible. These applicants should make a written request for prior concurrence from NASA before the due date for Notices of Intent to propose. NASA will provide a written response within three weeks. Such exception is not intended for individuals who have had successful employment in technical fields in science and engineering, even though the employment is not a direct continuation of their Ph.D. research, nor is it intended for individuals with a recent Ph.D. degree after having already established a successful career in Earth system science and related disciplines.

4. Not hold or have held tenure (or equivalent) on or before the submission deadline of this program.

5. Not be a current or former recipient of the NIP or Presidential Early Career Award for Scientists and Engineers (PECASE) (see further below) award.

2. Programmatic Information

2.1 Funding

Proposals to the NIP are openly solicited approximately every two years. The anticipated average award is $80-90K per year for a period of up to three years, subject to satisfactory progress and availability of funds.

2.2 Proposal Preparation

The NIP proposals should be prepared in accordance with the instructions given in the ROSES Summary of Solicitation and the NASA Guidebook for Proposers. The Science/Technical/Management section of the proposal should contain a detailed statement of the proposed research of no more than 15 single-spaced pages including figures and tables.

2.3 Budget Requirements and Restrictions [Clarified and Corrected July 18, 2017]

The NIP awards are typically three years in duration. The award amount for each is judged according to the scope of the proposed work and the overall competition. Salary for up to three months per year of PI time is allowable. NASA will not reimburse the salary if the PI is a Civil Service employee at a Federal agency other than NASA.

For individuals who are civil servants, NASA will only pay portions of their salary that are not normally fully covered as part of agency budgets. NASA will cover salary (up to three months) for scientists whose compensation must be won through competitive proposals to their employing agency or other agencies. NASA salary support for scientists at other agencies is NOT intended to be provided "in lieu of" salary that would normally be paid by the employing agency. If civil servant salary for other agency personnel is requested as part of the proposal, the budget page must specifically outline the compensation approach that the agency uses to cover its civil servants and verify that any NASA salary support would not be replacing that normally paid by the employing agency.
Funds may be used for support of students (undergraduate or graduate) and/or postdoctoral fellows who are involved in the proposed research or for research expenses, such as costs incurred in field experiments, purchase of equipment and/or supplies, computing, travel, etc. If research collaboration is a component of the proposal, it is presumed that the collaborator(s) have their own means of research support; that is, a NIP award may not include expenses for personnel or activities at collaborating institutions, nor salary costs for senior personnel, consultants, or subcontractors.

2.4 Proposal Review and Evaluation

As stated in Section VI(a) of the ROSES Summary of Solicitation, proposals are ordinarily evaluated on three criteria: intrinsic merit, relevance, and cost. Because of the unusual nature of this program element, institutional commitment will also be an additional evaluation criterion. Institutional commitment includes those aspects of existing or proposed infrastructure that will contribute in a substantial way to the success of the proposed research. Examples of contributions by institutions that may be considered by peer reviewers include: Offices, laboratories, engineering, computational, or other facilities; or technology planning and development capabilities that are of direct and substantive benefit to the proposed project.

The additional "institutional commitment" evaluation criterion described above renders redundant the fourth bullet in the definition of the Merit evaluation criterion ("Facilities, instruments, equipment and other resources or support systems...") in Appendix D of the NASA Guidebook for Proposers. These factors will not be evaluated twice; the fourth bullet will be removed from the evaluation of merit for this program element.

Resources and or facilities that are under the direct control of the PI or a Co-I may be described in the Facilities and Equipment section (See Table 1 of ROSES). Letters of resource support (described in Section 3.17 of the NASA Guidebook for Proposers) must be provided for facilities or resources essential to the proposal not under the control of the PI or a Co-I. [Added September 26, 2017]

Cost sharing is not required for an institution of higher education or other nonprofit organization to receive a grant or cooperative agreement, nor is it part of the evaluation criteria. However, support of student, postdoctoral fellow, and/or staff time or other forms of cost sharing may be considered by the selection official.

3. Summary of Key Information

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<tbody>
<tr>
<td>Expected annual program budget for new awards</td>
<td>~ $1.0</td>
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<tr>
<td>Number of investigator awards pending adequate proposals of merit</td>
<td>~12</td>
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<tr>
<td>Maximum duration of awards</td>
<td>3 years</td>
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<tr>
<td><strong>Due date for Notice of Intent to propose (NOI)</strong></td>
<td>See Tables 2 and 3 in the ROSES Summary of Solicitation.</td>
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<td><strong>Due date for proposals</strong></td>
<td>See Tables 2 and 3 in the ROSES Summary of Solicitation.</td>
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<td><strong>Planning date for start of investigation</strong></td>
<td>6 months after proposal due date</td>
</tr>
<tr>
<td><strong>Page limit for the central Science/Technical/Management section of proposal</strong></td>
<td>15 pp; see also Table 1 of ROSES and the NASA Guidebook for Proposers.</td>
</tr>
<tr>
<td><strong>Relevance to NASA</strong></td>
<td>See section 2.5 above. This program is relevant to the Earth Science questions and goals in the NASA Science Plan. Proposals that are relevant to this program are, by definition, relevant to NASA.</td>
</tr>
<tr>
<td><strong>General information and overview of this solicitation</strong></td>
<td>See the ROSES Summary of Solicitation.</td>
</tr>
<tr>
<td><strong>Detailed instructions for the preparation and submission of proposals</strong></td>
<td>Please see ROSES Summary of Solicitation Section I(g) Order of Precedence and the NASA Guidebook for Proposers.</td>
</tr>
<tr>
<td><strong>Submission medium</strong></td>
<td>Electronic proposal submission is required; no hard copy is required or permitted. See also Section IV of the ROSES Summary of Solicitation the NASA Guidebook for Proposers.</td>
</tr>
<tr>
<td><strong>Web site for submission of proposal via NSPIRES</strong></td>
<td><a href="http://nspires.nasaprs.com/">http://nspires.nasaprs.com/</a> (help desk available at <a href="mailto:nspires-help@nasaprs.com">nspires-help@nasaprs.com</a> or (202) 479-9376)</td>
</tr>
<tr>
<td><strong>Web site for submission of proposal via Grants.gov</strong></td>
<td><a href="http://grants.gov/">http://grants.gov/</a> (help desk available at <a href="mailto:support@grants.gov">support@grants.gov</a> or (800) 518-4726)</td>
</tr>
<tr>
<td><strong>Funding opportunity number for downloading an application package from Grants.gov</strong></td>
<td>NNH17ZDA001N-NIP</td>
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</table>
| **NASA point of contact concerning this program** | Lin Chambers  
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