



NASA Kentucky EPSCoR 2014 Request for Proposals

Announcement: RFP-15-002

Release Date: December 8, 2014

Proposals Due: 5:00 pm EST, January 21, 2015

Proposal files submitted online at nasa.engr.uky.edu

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Additional links, forms and FAQ available at nasa.engr.uky.edu/epscor/
and nasa.engr.uky.edu/submit/requests-for-proposals/

NASA Kentucky EPSCoR Programs Overview

The NASA Kentucky EPSCoR (Experimental Program to Stimulate Competitive Research) Programs strengthen research capability in the state in areas of importance to NASA and Kentucky by promoting development of research infrastructure, improving capabilities to gain support outside of EPSCoR and developing partnerships with NASA. NASA Kentucky EPSCoR Programs support faculty research development via Research Infrastructure Development Grants (RIDG) and Workshop/Conference/Seminar (WCS) awards.

NASA KY EPSCoR 2014 Request for Proposals

NASA Kentucky Space Grant Consortium and EPSCoR Programs invite proposal submissions for two programs addressing the national interests of NASA and specific needs of Kentucky:

Deadline: Proposal files submitted online at nasa.engr.uky.edu by 5:00 pm EST, January 21, 2015.

Period of Performance: NASA Kentucky will support awards up to one year (12 months) with start dates ranging from April 1 to July 1, 2015. Due to the close of the current NASA Kentucky EPSCoR RID Grant three-year award period in 2016, *no-cost extensions are not possible for projects funded under this announcement*. All projects must be completed and closed by June 30, 2016.

Numbers of Awards: Numbers of awards in each category are determined by sizes of the individual awards and available program funding levels.

Eligibility for EPSCoR Awards [RIDG, WCS]: Proposals will be accepted from institutions of higher education in Kentucky. Eligibility is not limited to NASA Kentucky Space Grant Consortium Affiliate Institutions. US Citizenship is not required.

Reporting Requirements: Principal Investigators are required to report research productivity and students supported using the KY EPSCoR Reporting System (KERS): 1) during the award period, 2) within 30 days of the end of the award (final technical report and complete KERS reporting), and 3) annually for 5 years post-award (Kentucky EPSCoR requirement). Project reporting is encouraged year-round and must be up-to-date to meet program report cycles due annually in May for NASA and July for state funding. *Reporting on current and prior awards must be up-to-date to be eligible for funding under RFP-15-002*. Proposals from PIs who are delinquent in meeting reporting requirements may be rejected without review.

General Proposal Guidelines: ALL PROGRAMS

Proposals that omit required materials or that exceed the page limits may be rejected without review. Proposals from PIs who are delinquent in meeting reporting requirements on current or prior NASA Kentucky awards may be rejected without review.

- *Equipment* may not be purchased or used as cost-share in any NASA Kentucky award.
- *Travel* funds are restricted to domestic travel only.
- *Cost-share* must be from non-federal sources.

Table 1. Summary of NASA Kentucky Space Grant Consortium Programs

Funding Source	Award Program	Program Abbreviation	Program Description	US Citizen Required	Max Award	Indirect Costs Allowed	Required Cost-Share \$CS:\$Award	Level of NASA Collaboration
EPSCoR	Research Infrastructure Development Grants	RIDG	Faculty directed research to enhance existing collaborations with NASA collaborators	NO	\$40,000	Yes	0.5:1	Letter of support from NASA ¹
EPSCoR	Workshop/Conference /Seminar	WCS	Researchers meeting to explore aerospace topics and joint funding opportunities	NO	\$3,000	Yes	None	Letter of support from partner ²

¹*Letter of support from NASA* commits NASA partnership or collaboration to the project. Letters of support do not include letters of affirmation (i.e., letters that endorse the value or merit of a proposal).

²*Letter of support from partner* describing support to the project proposal from committed partners.

Submission Instructions

Proposal forms are available at nasa.engr.uky.edu/requests-for-proposals/forms/. All proposals must be uploaded electronically as PDF files. Please title the proposal documents according to the specified file naming convention, in which PI is last name of proposer and PGM is program abbreviation (see Table 1).

- SIGNED COVER PAGE*: Scan the signed original and save as PDF (filename format: PI_PGM_Cover_2015.pdf)
- SIGNED BUDGET FORM*: Include justification detailing requested support and cost-share, scan the signed original and save as PDF (filename format: PI_PGM_Budget_2015.pdf)
- PROJECT DESCRIPTION*: (filename format: PI_PGM_Project_2015.pdf)
 - 12 point font, 1 inch margins, single spaced
 - 5 page limit - See specific program guidelines for required content
 - Additional pages - See specific program guidelines for lists of documents

Upload at nasa.engr.uky.edu by 5:00 pm EST, January 21, 2015. Submissions after 5 pm may be rejected without review.

Review Process

Proposals will be rated, ranked and funded up to the budgeted amount available for each program. As a panel, the reviewers will recommend proposals for funding to the NASA KY Director. Past reporting and accomplishments will be considered in evaluation of proposals. To avoid conflicts of interest, alternate reviewers may be recruited by the NASA KY Director.

EPSCoR Proposal Review Process

The NASA Kentucky EPSCoR Subcommittee and external content specialists will review the proposals and rate them based on the following criteria:

- MERIT: Intrinsic merit of the proposed research (40%)
- RELEVANCE: Relevance of proposed research to NASA and Kentucky priorities (20%)
- FOLLOW-ON: Specific plans for pursuing follow-on funding including further development of NASA and industry collaborations (20%)
- MANAGEMENT: Management and evaluation (10%)
- BUDGET: Reasonableness of budget narrative (10%)

Mission Directorate (MD) and Office of the Chief Technologist (OCT) Descriptions

Human Exploration and Operations Mission Directorate (HEOMD) - formerly Exploration Systems Mission Directorate (ESMD) and Space Operations Mission Directorate (SOMD). HEOMD provides the Agency with leadership and management of NASA space operations related to human exploration in and beyond low-Earth orbit. HEO also oversees low-level requirements development, policy, and programmatic oversight. The International Space Station, currently orbiting the Earth with a crew of six, represents the NASA exploration activities in low-Earth orbit. Exploration activities beyond low Earth orbit include the management of Commercial Space Transportation, Exploration Systems Development, Human Space Flight Capabilities, Advanced Exploration Systems, and Space Life Sciences Research & Applications. The directorate is similarly responsible for Agency leadership and management of NASA space operations related to Launch Services, Space Transportation, and Space Communications in

support of both human and robotic exploration programs.

(www.nasa.gov/directorates/heo/home/index.html)

Aeronautics Research Mission Directorate (ARMD) conducts vital research to make air travel more efficient, safe, green, and to uncover leading-edge solutions for the Next Generation Air Transportation System (NextGen) in the United States. ARMD's fundamental research in traditional aeronautical disciplines and emerging disciplines helps address substantial noise, emissions, efficiency, performance and safety challenges that must be met in order to design vehicles that can operate in the NextGen.

(www.aeronautics.nasa.gov)

Science Mission Directorate (SMD) leads the Agency in four areas of research: Earth Science, Heliophysics, Planetary Science, and Astrophysics. SMD works closely with the broader scientific community, considers national initiatives, and uses the results of National Research Council studies to define a set of "Big Questions" in each of these four research areas. These questions, in turn, fuel mission priorities and the SMD research agenda. The SMD also sponsors research that both enables, and is enabled by, NASA's exploration activities. SMD has a portfolio of Education and Public Outreach projects that are connected to its research efforts. (nasascience.nasa.gov)

Space Technology Mission Directorate (STMD) develops and demonstrates revolutionary, high-payoff technologies through collaborative partnerships. STMD is responsible for developing the crosscutting, pioneering, new technologies and capabilities needed by the agency to achieve its current and future missions. STMD employs a merit-based competition model with a portfolio approach, spanning a range of discipline areas and technology readiness levels.

(www.nasa.gov/directorates/spacetech/home/index.html)

Office of the Chief Technologist (OCT) serves as the NASA Administrator's principal advisor and advocate on matters concerning agency-wide technology policy and programs. OCT is responsible for the coordination and tracking of all technology investments across the agency. The office also serves as the NASA technology point of entry and contact with other government agencies, academia and the commercial aerospace community. OCT will promote the technology development activities within NASA's Mission Directorates, leveraging synergies between them, and delivering forward-reaching technology solutions for future NASA science and exploration missions, and significant national needs.

(www.nasa.gov/offices/oct/home/index.html)

Description: EPSCoR programs seek to strengthen research capability in the state by promoting development of research infrastructure, improving capabilities to gain support outside of EPSCoR and developing partnerships with NASA. Proposals submitted for **Research Infrastructure Development Grants (RIDG)** must be aligned with one or more of NASA's MD/OCT and further enhance an existing collaboration between Kentucky researchers and NASA collaborators. RIDG funding builds NASA partnerships to take a successful seed investigation to the next level in preparation for submission to the three-year Research Area or other nationally competitive solicitations. RIDG support is sufficient for a combination of summer salary, student stipend, tuition, supplies and travel. Faculty and institutions may creatively design a budget within the guidelines to meet the needs of the researcher, institution and planned NASA partnership.

Each funded NASA KY EPSCoR proposal is expected to establish research activities that will make significant contributions to the strategic research and technology development priorities of the MD/OCT and contribute to the overall research infrastructure, science and technology capabilities, higher education, and economic development of the jurisdiction (KY).

Eligibility: Proposals will be accepted from institutions of higher education in Kentucky. Eligibility is not limited to NASA KY Space Grant Consortium Affiliate Institutions. US Citizenship is not required.

Requirements: The proposed activity must be aligned with NASA themes addressed by one or more of the MD/OCT. Funded research activities should result in submission of a joint publication. Strengthened partnerships will result from the collaboration and provide an established foundation for submission to EPSCoR Research Area or non-EPSCoR funding opportunities. Funded projects will be expected to develop plans for follow-on funding and should result in submission of one or more proposals.

Proposal Content: See General Proposal Guidelines for formatting and file naming instructions.

Project Description: PI_RIDG_Project_2015.pdf

- No more than 5 pages including tables and figures describing: abstract (200-300 words), project summary including specific goals for the funded period and anticipated outcomes, alignment with NASA MD/OCT, and results from related prior NASA KY support. Proposals must describe a schedule for regular contact with their NASA collaborator and plans for a visit to the NASA site.
- Additional pages - included in PI_RIDG_Project_2015.pdf after 5 page project description
 - Bibliography/References as needed
 - Principal Investigator's 2 page CV, Co-PIs 1 page CV
 - Current, Pending and Prior Support - List of all current and pending support and any prior NASA Kentucky Space Grant and EPSCoR awards from the past five years for PI and Co-PIs.
 - Letter or email from a NASA researcher indicating commitment to the proposed research project, relevance to NASA priorities and willingness to participate in proposed research.

Budget Guidelines: Maximum award level is \$40,000 for one year. Allowable costs include faculty salary, student stipend or salary, fringe benefits, tuition, materials and supplies, and domestic travel. Required cost-share of at least 0.5:1 (\$CS:\$Award) must be provided by the proposing institution. Indirect costs are allowed and unrecovered indirect costs may be used as cost-share.

Longitudinal Tracking of Students: All students receiving compensation must be reported in KERS. Any student receiving \$5,000 or more in NASA funding or working 160 hours or more on NASA supported projects will be longitudinally tracked by NASA for five years using information provided on the SIF. Longitudinally tracked students will need to keep their information current through follow-up correspondence for the 5-year period.

Description: EPSCoR programs seek to strengthen research capability in the state by promoting development of research infrastructure, improving capabilities to gain support outside of EPSCoR and developing partnerships with NASA. Proposals submitted for **Workshop/Conference/Seminar (WCS)** awards must be aligned with one of NASA's MD/OCT and increase collaboration among Kentucky researchers and NASA collaborators. Workshop funding up to \$3,000 builds Kentucky and NASA partnerships to develop interdisciplinary teams interested in pursuing the three-year EPSCoR Research Area or other nationally competitive solicitations. Conference funding up to \$3,000 provides partial support for a local, regional, national or international meeting hosted in Kentucky focused on NASA related research. Seminar funding up to \$1,000 supports a series of seminars or webinars on an aerospace topic.

Each funded NASA KY EPSCoR proposal is expected to establish research activities that will make significant contributions to the strategic research and technology development priorities of the MD/OCT and contribute to the overall research infrastructure, science and technology capabilities, higher education, and economic development of the jurisdiction (KY).

Eligibility: Proposals will be accepted from institutions of higher education in Kentucky. Eligibility is not limited to NASA Kentucky Space Grant Consortium Affiliate Institutions. US Citizenship is not required.

Requirements: WCS activities must be promoted statewide, impact at least six participants from at least two different organizations, and survey participants both pre- and post-participation. NASA Kentucky must be acknowledged as a sponsor of the events. Connections with Kentucky companies will be viewed favorably.

Proposal Content: See General Proposal Guidelines for formatting and file naming instructions.

Project Description: PI_WCS_Project_2015.pdf

- No more than 5 pages including tables and figures describing: abstract (200-300 words), project summary, alignment with NASA MD/OCT, specific goals for the funded period and anticipated outcomes. Proposals must describe a schedule and identify potential participants.
- Additional pages - included in PI_WCS_Project_2015.pdf after the 5 page project description
 - Bibliography/References as needed
 - Principal Investigator's 2 page CV
 - Letter of support from institution partner, scientific site and/or NASA collaborator

Budget Guidelines: Anticipated award levels are \$500 up to a maximum award amount of \$3,000. Allowable costs include transportation and lodging for participants and guest speakers, speakers' fees (not honoraria), meals only during working meetings with an agenda and list of participants, and meeting room rental. No cost-share is required, however partnerships are strongly encouraged and will be viewed favorably. Indirect costs are allowed and unrecovered indirect costs may be used as cost-share.

Longitudinal Tracking of Students: All students receiving compensation must be reported in KERS. Any student receiving \$5,000 or more in NASA funding or working 160 hours or more on NASA supported projects will be longitudinally tracked by NASA for five years using information provided on the SIF. Longitudinally tracked students will need to keep their information current through follow-up correspondence for the 5-year period.