



**New Investigations Program
Grant Year 2009
(March 15, 2009 – March 14, 2010)**

Request for Proposals

Online Proposal Submissions Due: Friday, February 6, 2009 (5:00 PM)
Original Hardcopy Submission Due: Monday, February 9, 2009
Anticipated Award Date: April 15, 2009
<http://www.ncspacegrant.org/nip/>



North Carolina Space Grant New Investigations Program - Request for Proposals

I. Summary

The New Investigations Program is designed to strengthen North Carolina's aerospace-related research infrastructure by providing startup or re-alignment funding to university personnel who are conducting research that is directly aligned with NASA's Vision for Space Exploration. This opportunity is available to those who have either yet to become established researchers or are pursuing a significant change in research direction.

II. Background

The National Space Grant College and Fellowship Program was established by Congress under Title II of the National Aeronautics and Space Administration Authorization Act of 1988. Today the 52 Space Grant Consortia include over 850 affiliates from universities, colleges, industry, museums, science centers, and state and local government agencies.

NC Space Grant, established in 1991, is an active member of the National Space Grant College and Fellowship Program. NC Space Grant currently has 11 university member institutions (Appalachian State University, Duke University, Elizabeth City State University, NC A&T State University, NC Central University, NC State University, UNC-Asheville, UNC-Chapel Hill, UNC-Charlotte, UNC-Pembroke, Winston-Salem State University), 8 industry/government/non-profit partners and has managed and provided nearly \$12 million in support to North Carolina citizens.

NC Space Grant conducts programs in areas of fellowships, scholarships, education, research, and public service to promote, develop and support aeronautics and space-related science, engineering and technology training and programs. A common focus is to involve women, underrepresented minorities, and persons with disabilities, and to reach more citizens of North Carolina.

III. Project Overview and Guidelines

A. Award Range and Performance Period

NC Space Grant anticipates making 3 to 6 awards with the maximum individual award of up to \$15,000 for a one year period of performance (March 15, 2009–March 14, 2010). Proposing institutions are required to provide 50% cost-matching (0.5:1) using non-federal funds. In other words, if \$15,000 is requested from NC Space Grant, then \$7,500 must be provided as match.

B. Eligibility

Competition is open to individuals at active NC Space Grant university member institutions. Individuals must be qualified to serve as a principal investigator at their respective institution and be permanent US citizens (14 C.F.R. Sections 1260.12(c)(2) and 1260.12 (c)(3); see Section VIII.D, Special Note on U.S. Citizenship Requirements). NC Space Grant encourages proposals from females, members of underrepresented minority groups, and persons with disabilities. Submission is limited to one proposal per investigator; an investigator may receive only one NC Space New Investigations program award.

IV. Proposal Content

A. Title Page (1 page)

The cover page must include the following items: Project title; period of performance (March 15, 2009–March 14, 2010); PI name, institution, address, phone, fax, and email; concurrence signatures from the Principal Investigator and the Authorizing Official of the proposing institution; and the program name (New Investigations Program).

B. Project Description (5 pages maximum)

The PI is expected to use these discretionary funds to further establish his/her professional career through new research or expansion of existing research. Examples of things to consider

include: support for graduate or undergraduate students; publication costs; travel funds to establish collaborative relationships with NASA/industry researchers; regional/national travel costs to conferences and meetings; summer salary support; disposable research materials; and research related equipment (not an all-inclusive list). This section should include the following:

- Detailed description of the proposed research;
- Relevance of proposed research to NASA's Vision for Space Exploration;
- Number of students supported through research efforts;
- Description of how funding will impact investigator's career; and
- Description of past projects supported by NC Space Grant (if applicable).

C. Vita (2 pages)

Include a vita for the proposed Principal investigator of no more than 2 pages.

D. Support Letters (2 letters)

Include a letter of support and commitment from each of the following:

- Research colleague - this letter should emphasize the importance of the proposed research to the field, as well as the ability of the PI to conduct research.
- Department Head or Research center/laboratory Director – this letter should outline the importance of the proposed research to the department and the direction of the university.

E. Budget and Budget Narrative (2 pages)

Provide a detailed budget using the format outlined in Appendix A (New Investigations – Proposed Budget for Grant Year 2008), along with a budget narrative. Each format should include expense summaries as well as the 50% non-federal cost match requirement. Specific budget details are noted below:

- Direct salary expenses for PI and students should be separated by titles or disciplines with hours, rates, and total amounts for each position. All individuals supported with NC Space Grant funds must be permanent U.S. Citizens.
- Proposed travel should include the number of trips, destination, duration, etc. International travel is not allowed.
- Requests for equipment are limited to equipment that has a direct impact on the research (computers, however, are not allowed). *Please note that NASA training grant funds cannot be used to purchase equipment. As a result, state funds will be used to support any equipment requests. The budget format (Appendix A) contains a column for state funds; this is where equipment expenses should be shown.*
- The NC State University/NASA National Space Grant College and Fellowship Program grant does not cover facilities and administrative costs. Unrecovered facilities and administrative costs may be used for required cost-matching. The detailed budget must include a description of the required 0.5:1 (50%) non-federal matching funds.
- The NASA Grants and Cooperative Agreements Handbook, Sections A and B, located at <http://ec.msfc.nasa.gov/hq/grcover.htm>, provides additional information on uniform administrative requirements for grants and cooperative agreements with institutions of higher education.



F. Current and Pending Support

Identify current and pending support of the Principal Investigator including: source of support; project title; amount of award; period covered by award; months or percent of time committed by the investigator during the award period; and location of research.

V. Proposal Format

The following guidelines and restrictions apply to all proposals. Proposals not meeting these requirements may not be considered.

- Proposals must be submitted in PDF format.
- Proposals should be one-sided, single-spaced on standard 8 ½ x 11 paper, no smaller than 12 point font and with no less than one inch margins throughout. Text restrictions are inclusive of all illustrations, tables, charts, exhibits, etc.
- All pages must be numbered sequentially.
- Proposals should contain only appendices and attachments specifically called for.
- All information you wish for reviewers to consider should be included in your proposal. It is not acceptable to refer reviewers to websites or other external sources for additional information or as evidence for your narrative. Additional appendices and attachments are not allowed.



VI. Proposal Submission

Proposal submission will be conducted via the NC Space Grant website at <http://www.ncspacegrant.org/proposals/> by February 6, 2009 at 5:00 PM. One complete single electronic file in PDF format is required by the on-line system. Electronically submitted proposal **must** contain all required signatures. Questions concerning the on-line proposal submission system should be directed to proposals@ncspacegrant.org.

The original proposal with all required signatures must arrive at NC Space Grant by February 6, 2009. Late or incomplete submissions may not be considered. Hard copy submissions should be sent via express mail, commercial delivery, or courier to:

Dr. Chris Brown, Director
North Carolina Space Grant
NCSU - Research Building II
1009 Capability Drive, Suite 210
Raleigh, NC 27606

VII. Proposal Review and Evaluation

Proposals will be reviewed by a panel of individuals who are scientifically literate, but not necessarily experts in the proposed field of research. Proposals will be grouped into 'research areas' based on information provided by the PI during proposal submission. Similarly, review panel members will be grouped into research areas of interest.

Special parameters have been established by the NC Space Grant for evaluation in the following major areas:

- Research plan (30%)
- Alignment of research to NASA's Vision for Space Exploration (30%)
- Budget alignment to research plan (15%)
- Professional letter of support from research colleague; Commitment by PI's institution to the investigator and the proposed research as indicated by the letter of support from the university and/or cost matching (15%)
- Compelling case for the need for this support to further the investigator's research career (10%)

VIII. Reporting Requirements

A. Financial Progress Report

A financial progress report must be submitted by September 30, 2009. This report must contain a breakdown of project expenditures to date and summarize how remaining funds will be spent. Format will be provided.

B. Final Report

A final report is due within 90 days of the completion of the award. This report must contain the following (format will be provided):

1. Executive summary of the project that is suitable for publication. The executive summary should no more than 250 words.
2. Statement on how funding assisted investigator.
3. List of papers submitted for publication during the period of this award. Include title, publication, date of publication, author list, and a copy of the paper.
4. List of all presentations delivered during the period of this award. Include presentation title, location, date, and a copy of the presentation.



5. List of all conferences attended during the period of this award. Include conference title, location, dates, and if investigator presented.
6. List of all proposals submitted during the period of this award. Include proposal title, announcement of opportunity title, name of sponsor, proposal due date, role of investigator, and funding status.
7. List of all patents that were applied for and/ or approved during the period of this award.
8. List of pending and actual support for investigator. Include source, PI, % time, and role of investigator.
9. Budget summary that details all project expenditures and includes a comparison of the proposed budget to actual expenditures for all budgeted categories.
10. Signed statement of cost sharing from PI's Office of Sponsored Programs.

IX. Other Requirements

A. Acknowledgment of Support

An acknowledgment of NC Space Grant support (logo and/or written) must appear in all publications of any material based on this funding in the following terms: "Supported by the North Carolina Space Grant." The NC Space Grant logo can be downloaded at www.ncspacegrant.org.

B. Post Award Reporting Requirements

The Principal Investigator agrees to submit a current vita to NC Space Grant once per year for at least 5 years after the completion of this award. This allows NC Space Grant to assess the impact of this program on the career of the investigator.

C. Audit and Records

Financial records, supporting documents, statistical records, and other material pertinent to this grant shall be retained by the grantee for a period of at least three years following submission of the final project report and shall be made available to NC Space Grant upon request.

D. Payments

Contingent upon NC Space Grant's receipt of NASA funds, a sub-agreement will be established between the grantee's institution and NC State University. The grantee institution shall receive payments under this grant through that institution's Office of Sponsored Projects. Invoices must be submitted no later than 30 days after the last day of the month in which the expense was incurred. Late invoices may not be honored.

E. Notification of Absence

NC Space Grant shall be notified prior to the Principal Investigator's absence from campus for a period of four months or more. Prolonged absences from the campus for non-project related purposes are subject to NC Space Grant review.

F. Transfer of Awards

If the principal investigator leaves the grantee institution or otherwise relinquishes active direction of the project, the institution must notify NC Space Grant as soon as possible and the award will be terminated. Awards may not be transferred if the PI leaves the grantee institution to another institution that is not an active academic member of the NC Space Grant.

G. Suspension or Termination

This grant may be suspended or terminated if the grantee fails to comply with all the terms and conditions of the grant.

H. Nondiscrimination

No person shall be excluded from participation in, be denied benefits of, or be otherwise subjected to discrimination under this grant on grounds of race, color, national origin, religious affiliation, physical disability, gender, or sexual orientation.



I. Compliance with Regulations

The investigator must abide by all state and federal regulations related to research.

X. Supplemental Information – NC Space Grant Guiding Documents

In addition to the Space Grant enabling legislation, the following should be considered guiding documents for proposal submission:

NC Space Grant Strategic Plan

http://www.ncspacegrant.org/info/docs/strategic_plan/

NASA’s Vision for Space Exploration http://www.nasa.gov/missions/solarsystem/explore_main.html

Report of the President’s Commission on Implementation of United States Space Exploration Policy

http://www.nasa.gov/pdf/60736main_M2M_report_small.pdf

The NASA Education Enterprise Strategy

<http://www.education.nasa.gov/about/strategy/>

XI. Point of Contact

Questions regarding this announcement should be directed to:

Dr. Chris Brown, NC Space Grant Director, cbrown@ncsu.edu, (919) 513-2457;

Jobi Cook, NC Space Grant Associate Director, jobi_cook@ncsu.edu, (919) 515-5933; or

University	Campus Director	Email
Appalachian State University	Dr. Anthony Calamai	calamaiag@appstate.edu
Duke University	Dr. F. Hadley Cocks	Hadley01@duke.edu
Elizabeth City State University	Dr. Thomas Rossbach	tjrossbach@mail.ecsu.edu
North Carolina A&T State University	Dr. William Craft	craft@ncat.edu
North Carolina Central University	Dr. Shawn Sendlinger	ssendlinger@nccu.edu
North Carolina State University	Dr. Fred DeJarnette	dejar@ncsu.edu
University of North Carolina at Asheville	Dr. Brian Dennison	dennison@unca.edu
University of North Carolina at Charlotte	Dr. Bharat Yoshi	bsjoshi@uncc.edu
University of North Carolina at Chapel Hill	Dr. Gerald Cecil	cecil@physics.unc.edu
University of North Carolina at Pembroke	Dr. Jose D'Arruda	jose.darruda@uncp.edu
Winston-Salem State University	Dr. Elva Jones	jonese@wssu.edu



APPENDIX A
NEW INVESTIGATIONS – PROPOSED BUDGET FOR GRANT YEAR 2008
(March 15, 2009 – March 14, 2010)

Institution: _____
PI: _____

AWARD AMOUNT: \$ _____ **; COST SHARE COMMITMENT: \$** _____
(The award amount and cost-share commitment should match what is reported below)

Budget Category	NASA Funding	State Funding	Cost-Share	TOTAL
Salaries	\$ _____	\$ _____ XXX _____	\$ _____	\$ _____
Travel	\$ _____	\$ _____ XXX _____	\$ _____	\$ _____
Supplies	\$ _____	\$ _____ XXX _____	\$ _____	\$ _____
Services	\$ _____	\$ _____ XXX _____	\$ _____	\$ _____
Equipment	\$ _____ XXX _____	\$ _____	\$ _____	\$ _____
Student Salaries/Stipend	\$ _____	\$ _____ XXX _____	\$ _____	\$ _____
Other (Explain)	\$ _____	\$ _____ XXX _____	\$ _____	\$ _____
Indirect Costs*	\$ _____ XXX _____	\$ _____ XXX _____	\$ _____	\$ _____
TOTALS:	\$ _____	\$ _____	\$ _____	\$ _____

**The NC State University/NASA National Space Grant College and Fellowship Program grant does not cover facilities and administrative costs. Unrecovered facilities and administrative costs may be used for required cost-matching.*

Budget Narrative: (please attach on a separate sheet)