

NM Mexico NASA EPSCOR
Annual Meeting
June 11, 2009
Pat Hynes, Director

Experimental Program to Stimulate
Competitive Research

New Mexico NASA EPSCoR Program

- Purpose: build the core competitive research strength in New Mexico.
- Grow technology development methods & activities for the solution of scientific & technical problems of importance to NASA.
- Focuses on collaborative activities & relationships to develop long-term, self-sustaining, nationally-competitive capabilities in space & aerospace-related research.
- Contribute to New Mexico's economic viability & expand the nation's base for aerospace research & development.

New Mexico NASA EPSCoR Program

- Must perform scientific and/or technical research in areas that support the strategic research and technology development priorities of one or more of NASA's four Mission Directorates
- Proposals should emphasize developing a research capability to compete for funds from NASA sources outside of EPSCoR and from other non-NASA sources.
- The projects should move increasingly towards gaining support from sources outside NASA EPSCoR by aggressively pursuing additional funding opportunities offered by NASA, industry, other federal agencies, and elsewhere.

New Mexico NASA EPSCoR Goals

- Contribute to & promote the development of research infrastructure in New Mexico in areas of strategic importance to the NASA mission while assessing & leveraging the many existing core capabilities relative to NASA in the state.
- Improve the capability of New Mexico to gain support from sources outside the NASA EPSCoR program in space and aerospace related science, technology, engineering and mathematics research.
- Develop partnerships between NASA research assets and New Mexico academic institutions, federal laboratories, and industry.
- Contribute to New Mexico's overall research infrastructure, science and technology capabilities, higher education, and/or economic development.
- Work in close coordination with the New Mexico Space Grant Consortium (NMSGC) to improve the environment for science, mathematics, engineering, and technology education in New Mexico.

Technical Advisory Committee (TAC)

- Patricia C. Hynes, New Mexico NASA EPSCoR Director, TAC Chair
- Vimal Chaitanya, Vice President for Research at NMSU
- Dave Westpfahl, New Mexico Institute of Mining and Technology
- Tom Burton, New Mexico State University
- Stephen Horan, New Mexico State University
- Keith Beck, Jacobs Technology
- Klaus Dannenberg, American Institute of Aeronautics & Astronautics
- Steve Landeene, Executive Director, New Mexico Spaceport Authority
- Julie Fulghum, Interim VP for Research & Economic Development, UNM
- Van Romero, New Mexico Institute of Mining and Technology Vice –President for Research and Economic Development
- Chuck Boehmer, General Dynamics

Recommendation for HED TAC member

New Mexico NASA EPSCoR Program

Two parts

1. RID (Research Infrastructure Development)
2. CAN (Cooperative Agreement Notice)

RID (Research Infrastructure Development) Research Funding = \$25K, Ends Spring 2010

- Funding for up to \$25,000
- Leads to \$750,000 Funding
- Purpose: initiate collaborations, publications, & eventually secure non-EPSCoR & non-NMSGC research funding.
- Become competitive for large EPSCoR funding of \$750,000.
- Initiate competitive research and technology development methods and activities for the solution of scientific and technical problems of important to NASA.
- Monies must be matched 1:1 with non-federal monies. In-kind matches are allowable.
- Grants are competitively evaluated & awarded to NM faculty.
- Request for Proposals released December 1, 2009
- Proposals are due March 1, 2010
- Proposals are submitted on-line at:
http://spacegrant.nmsu.edu/nmsu_funding/index.html

**New Mexico NASA EPSCoR RID
Review Criteria- External Review**

Criteria	Possible Points
Degree this proposal can contribute to the overall research infrastructure, science &/or technical capability, higher education, &/or economic development of NM.	20
Degree the proposal is competitive & builds core strength needed by NASA for the solution of scientific & technical problems as defined by one or more of NASA's four Mission Directorates or ten Field Centers.	15
Scientific and technical merit of the proposed project.	15
Probability the project will support researcher's ability to develop follow-on funding.	20
Probability the project will support researcher's ability to develop collaborations with NASA, NMSGC, & space & aerospace related industry in New Mexico or with members of the Space Grant network including students.	10
Probability the project will result in published research.	5
Competency of project personnel to carry out the research plan & achieve goals.	5
Overall utility and relevance to goals and objectives.	5
Adequacy & appropriateness of the budget including matching funds.	5
Total	100

Reviewer Suggestions?

RID (Research Infrastructure Development) Travel Grants

- Supply travel funding to New Mexico researchers to visit NASA Centers and other crucial locations associated with NASA research.
- Both short and medium-length (1-2 weeks) visits supported.
- Funds could also be spent to provide partial support to bring key researchers in NASA-related fields to New Mexico.
- Applications accepted year round

http://spacegrant.nmsu.edu/nmsu_funding/Travel_Grants.pdf

CAN (Cooperative Agreement Notice)

- Awarded annually for up to \$750,000 for a three-year period
- All NASA EPSCoR monies must be matched 1:1 with non-federal monies. In-kind matches are allowable.
- 2007: Due July 10, 17 pre-proposals, 2 forwarded to NASA (2 from NMSU), \$741,114 received by NMSU
- 2008: Due March 15, 9 pre-proposals, 2 forwarded to NASA (1 from NMSU & 1 from UNM) \$660,000 received by NMSU
- 2009: Due March 19, 5 pre-proposals, 2 forwarded to NASA (1 from NMSU & 1 from NM Tech), determination not made
- NASA Evaluation Panel

New Mexico NASA EPSCoR - CAN Review Criteria	
INTRINSIC MERIT	35
Proposed Research	
Existing Research	
NASA ALIGNMENT AND PARTNERSHIPS	35
Relevance to NASA and Jurisdiction	
Partnerships/Sustainability	
NASA Interactions	
Diversity	
MANAGEMENT AND EVALUATION	15
Results of Prior NASA EPSCoR Research Support	
Personnel	
Research Project Management	
Multi-Jurisdiction Projects	
Project Evaluation	
Tracking and Program Progress	
Continuity	
BUDGET	15
TOTAL SCORE	100

New Mexico NASA EPSCoR Program Evaluation Metrics

- All funded researchers will write a non-EPSCoR proposal within three years.
- All funded researchers will publish in refereed journals within three years.
- All funded researchers or their students will publish at professional meetings within two years.
- All funded researchers will demonstrate they have developed at least one NASA collaboration within the first year. Researchers are asked to report the number & quality of collaborations with academic institutions & NASA, space related industry, & state & federal agencies.
- All funded researcher agree to interact with Space Grant within the first year. Researchers will be asked to report their interactions with New Mexico Space Grant Consortium.

New Mexico Space Grant Consortium Scholarship Program

- Undergraduate Scholarships = \$5,000
- Graduate Scholarships = \$10,000
- Applications due on-line at:
<http://spacegrant.nmsu.edu/NMSU/scholarships/index.html>
- Applications due October 15th and March 15th
- Students work with faculty research that supports NASA Strategic Goals and NASA Mission Directorates



ISPCS International Symposium for Personal and Commercial SPACEFLIGHT

Oct. 21 & 22, 2009 • Las Cruces, New Mexico, USA
New Mexico Farm & Ranch Heritage Museum

ORGANIZED BY
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CONSORTIUM

October 21-22, 2009 New Mexico Farm and Ranch Heritage Museum Las Cruces, New Mexico





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Purpose of ISPCS

- **Robust Program**
ISPCS offers a broad range of panels and speakers to fully convey the state of the industry. The goal of our industry is to expand the availability of safe, affordable, reliable access to space for mankind. Panel topics will include flight safety, innovative business strategies, update on vehicles and systems including Virgin Galactic's WhiteKnightTwo, Global Spaceport collaborations, with more topics to be added.
- **Bring the global community together** to share the excitement and create momentum as we grow commercial and personal spaceflight industry





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Session Topics

- The Role of University Aerospace Research Programs in Enabling the Growth of Commercial Space
- Flight Safety
- Pilot to Pilot
- The Suborbital Future Beyond Tourism: The Research and Education Market
- Satellite Manufacturers in the Sub-Orbital Market
- The Launch Vehicles and Systems
- The Facilities





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Keynote Speaker

Gary Payton

Deputy Under Secretary of the
Air Force for Space Programs





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Suborbital Future Beyond Tourism: The Research and Education Market



Alan Stern
Session Chair
Former NASA ESMD
Administrator



Josh Colwell
U. of Central FL
Planetary Scientist



Steve Collicott
Purdue U.
Aeronautics &
Astronautics



Erika Wagner
MIT
Biomedical Eng



Larry Paxton
Johns Hopkins
Applied Physics
Laboratory



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**Register at:
www.ispcs.com**



Leonard R Sugerman Public Forum

Delivering on the Promise of
Spaceflight for Mankind

Tuesday, October 20, 2009, 9am-Noon
New Mexico Farm & Ranch Heritage Museum

FREE ADMISSION

RSVP 575-646-6414 or nmsgc@nmsu.edu
www.ispcs.com

Sponsored by NMSU, NMSU -PSL
International Symposium for Personal and Commercial Spaceflight,
Mesilla Valley Economic Development Alliance, Las Cruces Chamber of Commerce,
City of Las Cruces, & NM Space Authority

NM NASA EPSCoR

- What are we going to focus on in the next 5 years?
- How can we expand faculty participation?