Pennsylvania Engaging New Opportunities

Christopher House
Director of Pennsylvania Space Grant

2009 Mid-Atlantic Space Grant Meeting
Activities to be Highlighted

- PSGC Fellowship programs
- Undergraduate Research Programs
- Teacher Professional Development
- Our Seed/mini Grant Program
Office Changes and Updates:

Christopher House, Director (second year)
Heather Nelson, Assistant Director
Linda Bell, Administrative Manager
Alli Fox, Higher Education Coordinator
Robin Altemus, Special Initiatives Coordinator
Fellowship and Internships (FY08 120 students funded)

Penn State University
Temple University
Carnegie Mellon University
California University of Pennsylvania
West Chester University
University of Pittsburgh
Susquehanna University
Internships to NASA Centers
Undergraduate Research Programs

Penn State:

WISER: Women in Science and Engineering Research
MURE: Minority undergraduate Research Experience
Freshman Undergraduate Research Program
Undergraduate Research Programs

Penn State: Student Space Programs Laboratory (SSPL)

- Allows students the opportunity to design, fabricate, and integrate space systems
- Hands-on projects
Undergraduate Research Programs

Penn State Abington:

ACURA: Abington College Undergraduate Research Activities

Protein chemistry, molecular modeling, synthesis of organic compounds, breast cancer genetics, skeletal tissue formation, robotics in Second Life, statistics and healthcare, among others
Undergraduate Research Programs

Gettysburg College
Franklin and Marshall College
NURO, Arecibo, and other telescopes
Undergraduate Research Programs

Gettysburg College
Franklin and Marshall College
Christene Lynch and Shea Hess-Weber

(University of Iowa and George Mason Ph.D. students)
Teacher Professional Development Courses

Penn State (Six Summer Workshops)

Lunar Exploration (AESP funded)
Renewable Energy
Black Holes
Calculator Robots
Earth History
Extreme Cosmic Messengers
Lunar Exploration (K-8 advertised)

- Collaboration between College of Education, College of Science, Earth and Mineral Sciences, Engineering
- Emphasizing inquiry-based learning
- Lunar geology, Solar System Volatiles, Rocket physics
Teacher Professional Development

Global Learning & Observations to Benefit the Environment (GLOBE)

University of Pittsburgh (Educator Resource Center) - offers GLOBE workshops with a specific focus on NASA missions and activities.
Teacher Professional Development

Project ASTRO (West Chester University)

- Provides training and expert content
- Project pairs in-service teachers with astronomers
- 2009 Workshop reached 14 teachers from Philadelphia area schools
Our Seed/mini Grant Program

• State-wide

• Higher Education and Research Infrastructure

• Messiah College, Penn State, CMU, Franklin and Marshall, West Chester University, Gannon University, Temple University, Penn State-Wilkes-Barre, Lehigh University, U of Penn.

• One recipient (Assistant Professor Beth Shapiro) was subsequently awarded a 2009 MacArthur Fellowship!
New Hands-on Engineering

Hopper Spacecraft Simulator (Lehigh University)

Ballooning Projects
(Temple University, Gannon University, Penn State Wilkes-Barre, U. of Pennsylvania)

Sounding Rocket Project (Temple University)
Mini-grants to non-affiliates (possible new affiliates)

Gannon University, Messiah College, Penn State – Wilkes-Barre, and U. of Penn