

VIRGINIA
SPACE GRANT
CONSORTIUM



Mary Sandy

Director

October 5, 2009

Mid-Atlantic
Space Grant
Directors' Meeting



VSGC New Investigator Program

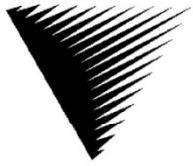
- ❖ **Designed to strengthen Virginia's aerospace-related infrastructure by providing start-up funding to university faculty who are conducting research aligned with NASA's mission.**
- ❖ **Awarded 5 grants at \$10,000 each**
 - 1:1 cost matching in non-federal funds.
- ❖ **Targeted new researchers at VSGC member institutions: College of William and Mary, Hampton University, Old Dominion University, University of Virginia, Virginia Tech.**
- ❖ **Concept borrowed from other Space Grant programs.**
- ❖ **Limit of one award per investigator in academic career.**
- ❖ **Eligibility:**
 - **Must be tenure track and within first five years of academic career**
 - **Open to U.S. citizens.**
 - **Females and underrepresented minorities are encouraged to apply.**



Awards

David Green	UVA	Novel Reinforcement of Polymer Nanocomposite Materials
Andres Clarens	UVA	Gas-expanded Lubricants: Improving Turbine Efficiency Using “Smart Fluids”
Cornel Sultan	VT	Tensegrity Membranes for Energy Harvesting
Seth Aubin	W&M	Ultra-Cold Fermion Atomic Clock for Deep Space Navigation
David Phillips	W&M	Minimizing Delay in the U.S. National Airspace System

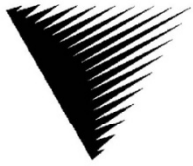




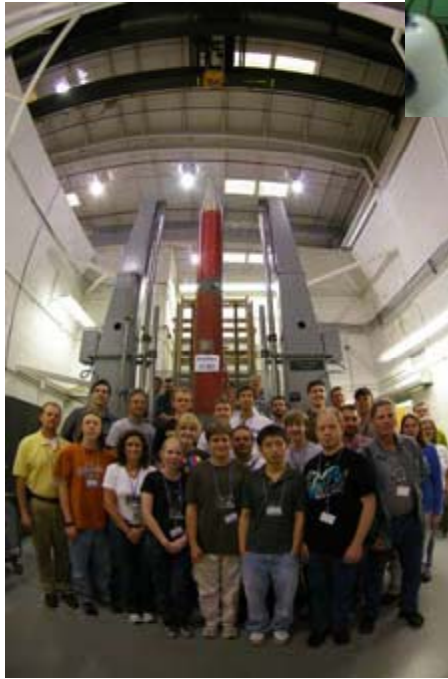
RockOn! Workshop 2009

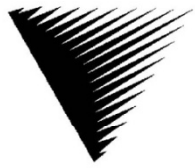
- ❖ **A six-day hands-on workshop June 21-26, 2009 for Faculty and Students.**
- ❖ **Small teams built a sounding rocket payload from a kit which were stacked and launched on an Orion-Terrier rocket on the 6th day.**
- ❖ **The following schools participated from the Mid-Atlantic area: Delaware Technical and Community College (Delaware); Hampton University (Virginia); Virginia Tech (Virginia); and West Virginia University (West Virginia).**
- ❖ **Registration fee of \$1,699 included breakfast, lunch and one dinner, all hardware, t-shirts and a portion of the launch cost.**
- ❖ **Almost 60 people from universities in 22 states and Puerto Rico participated in the 2009 RockOn! Workshop. Eighty percent of the participants were faculty.**
- ❖ **The workshop to be held annually as interest and funding permit.**
- ❖ **The 2010 workshop is scheduled for June 19-24.**
- ❖ **Registration opens October 26, 2009.**
- ❖ **FMI: <http://spacegrant.colorado.edu/rockon>**





RockOn! Workshop 2009





RockSat Launch Opportunity

- ❖ **In addition to the RockOn! Workshop payloads, 10 universities flew payloads on the same flight as part of the RockSat program. RockSat is the next step in low cost student access to space!**
- ❖ **The RockSat program allows the previous year's workshop participants to apply their newly acquired knowledge to design, build, and fly a sounding rocket payload in less than one year's time.**
- ❖ **VSGC sponsored a joint UVa/VT hypersonic payload.**



NASA Global Climate Change Education (GCCE)

GCCE funds relevant projects nationwide that seek to:

- ❖ **Improve global climate change literacy in elementary and secondary schools, on college campuses, and through lifelong learning;**
- ❖ **Increase the number of people, particularly students, using NASA data and models to understand global climate change issues;**
- ❖ **Increase the number of students prepared for employment in technical fields relevant to global climate change.**



NASA Global Climate Change Education (GCCE)

- ❖ **22 projects have been funded. (7 from Mid-Atlantic Space Grant states)**
 - **3 Washington, D.C.** (American Association for the Advancement of Science; National Council for Science and the Environment; Association of American Geographers)
 - **2 Virginia** (Public Broadcasting Service; Institute for Global Environmental Strategies)
 - **2 Pennsylvania** (Drexel University; Penn State University)
- ❖ **Review is in process for another 25 projects by end of 2009**
- ❖ **Expect this program will continue with yearly RFP**
- ❖ **Space Grants should consider submitting proposals**



NASA Global Climate Change Education (GCCE)

VSGC's role:

- ❖ Program integration and communications
- ❖ Facilitate avenues of communication among awardees (webinars and networking venues at national conferences)
- ❖ Populate website with resources and links
- ❖ Represent GCCE and NASA at conferences
- ❖ Distribute information about new solicitations
- ❖ Attend educational forums
- ❖ Support annual conference for awardees at LaRC



Geospatial Technician Education Through Virginia's Community Colleges (GTEVCC)

- Funded by NSF-ATE (Advanced Technological Education)
- VSGC administering on behalf of the Virginia Community College System (VCCS) – 3 year award
- Vision: Establish three unique academic pathways in geospatial technology (GPS/GIS/Remote Sensing) at partnering VCCS colleges
- Pathways will serve as models for all community colleges (23).
- Provide employers in Virginia with a larger pool of skilled geospatial technicians.



Geospatial Technician Education Through Virginia's Community Colleges (GTEVCC)

GTEVCC Goals:

1. New and updated courses aligned with employer needs
 - Dual enrollment courses and articulation agreements
2. Professional development for community college faculty and precollege teachers (mentoring)
3. Career Awareness – increase enrollment in geospatial
4. WebPortal – to encourage sharing of data and lessons
5. Insure Diversity in Participation – leverage successful programs at partnering colleges

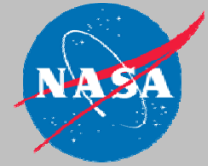
Langley Aerospace Research Summer Scholars (LARSS) Program



- ❖ Paid competitive internships at NASA Langley Research Center (LaRC) for undergraduate, graduate and select high school students
- ❖ Year-round, spring, summer and fall sessions
- ❖ 715 placements since 2006
- ❖ Encourage high caliber students to pursue and earn graduate degrees
- ❖ Enhance interest in aerospace research through exposure to NASA researchers and research facilities of LaRC
- ❖ Continue to feed the NASA pipeline and the Nation's STEM skills base with highly qualified undergraduate and graduate students
- ❖ Managed by Virginia Space Grant Consortium under the auspices of National Institute of Aerospace.



Thank You LARSS Sponsors



- ❖ The NASA VSGC LARSS Program allows opportunities for interested outside organizations to financially sponsor one or more of its scholars.
 - Sponsorship Cost, \$4,000 - \$6,000 depending on education level of student.
- ❖ A heartfelt thanks to the 37 Space Grant Partners for the 2006-2009 LARSS Program years who sponsored 122 students:
 - AL, AR, DC, DE, FL, ID, IL, IN, LA, MA, MD, ME, MI, MN, MO, MS, MT, NC, ND, NE, NH, NH-Dartmouth, NM, NV, NY, OR, PA, PR, Rocky Mt. in UT, SC, SD, TN, TX, VA, WA, WI, WV



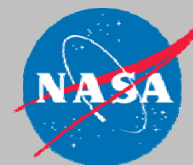
**Andrea Dickason, ND
Space Grant Consortium**



**Osmar Munoz, NM Space
Grant Consortium**



**Francisco Rodriguez, NC
Space Grant Consortium**



LARSS Contact Information

Debbie Murray
LARSS Program Coordinator
Office of Education
Mail Stop 400-LARSS
Hampton, VA 23681-2199
Phone: (757) 864-5215
E-mail: Deborah.B.Murray@nasa.gov

or

Sarah Pauls
LARSS Program Assistant
Phone: (757) 864-4394
E-mail: Sarah.E.Pauls@nasa.gov



Jose Luis Puga, MD Space Grant Consortium

<http://research.nianet.org/larss>

Summer Session Deadline: February 1, 2010