

Virginia SpaceLink

Virginia Space Grant Consortium

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TECHNOLOGY

Exploration of Space Science through Tactile Graphics Workshop Conducted at VSGC

Bringing the excitement of the visual and graphical aspects of space science to blind and visually impaired (VI) students was the focus of a VSGC-sponsored workshop, **Mission Space Science: The Tactile Frontier**. Seventy science teachers, teachers of exceptional needs students, and tech specialists were provided innovative hands-on strategies for using tactile graphics in the teaching of science concepts, knowledge and skills required by the Standards of Learning (SOL).

"There is a critical educational need to provide training to all teachers in Virginia on how to make the learning materials for the sciences more accessible to all learners," stated Barbara Murray, VSGC Educational Program Manager. "Participants enthusiastically embraced the opportunities to create their own tactile graphics," Murray continued.

Other concurrent workshops allowed teachers to work with classroom science kits developed for use with exceptional students. K-16 educators were able to benefit from this regional hands-on experience, where it might otherwise prove to be cost prohibitive for a singular school to provide these experiences and bring together the number of key educators in this field.

Dr. David Hurd, Planetarium Director and Professor at Edinboro University of Pennsylvania, discussed the various ways blind students at Edinboro have discovered the heavens through tactile star charts, planetarium and solar system models. Lucia Hasty, Director of the Colorado Instructional Materials Center for the Visually Handicapped, discussed strategies for teaching readers to interpret graphics and the current standards and guidelines for the production of graphics. Ron Shaneyfelt, Program Manager, Kids Science News Network, NASA Langley Research Center provided information to participants about NASA's Distance

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Gail Hendrich, Coordinator at the Virginia School of the Deaf, Blind, and Multi-Disabled addressed the Educators of blind and visually impaired students.



The Director's Corner



Dear Friends of the VSGC,

As this issue of *SpaceLink* demonstrates, there is much good news to report. We were, however, the recipient of very disturbing news when we learned in March that our state funding line item was zeroed out by the General Assembly in the eleventh hour conference on the State budget. Funding for Space Grant was included in the Governor's budget and given strong support by the State Council of Higher Education. This was a commitment made by the State to NASA at the initiation of the Virginia Space Grant Consortium.

We are all aware of the difficult economics of our current state budget situation; however, we do believe that the legislators who made these cuts may not have fully realized the impact. Every dollar of the \$170,000 we were receiving in annual State funding has gone directly to scholarships and fellowships for students in science, engineering, and high technology fields at Virginia's universities and community colleges. These are areas of high national workforce demands. We hope to turn this situation around during the next General Assembly session by ensuring that our State legislators are aware that each NASA Space Grant dollar is typically leveraged on an annual basis by about \$5.50 in other funding for VSGC programs, while state dollars have typically been leveraged by about \$2 - \$2.50 in non-federal funds for scholarship and fellowship awards.

The VSGC has received nearly \$300,000 in federal funding in the past six months. Working together with Virginia Tech and other partners and with Workforce Development Funding from NASA Space Grant, we have been able to create a Space Grant Geospatial Specialist position in Cooperative Extension at Virginia Tech. This position will serve as a wonderful state resource. Read more about this exciting new program on pages 8 and 9.

In February, we hosted *Mission Space Science—The Tactile Frontier*, an assistive technologies workshop for teachers of the blind and visually impaired. We continue to manage NASA's Undergraduate Student Research Program, which has placed 136 students for research experiences at 10 NASA Centers and Los Alamos National Laboratory this summer and fall. You will read about the Teacher Education and Community College scholarships we have awarded for the upcoming academic year in this issue on pages 8-9. Graduate Student Research Fellowship awards are being finalized as we go to press so we will share information about these outstanding Virginia students and their awards in our fall issue.

Our partnerships for education and research are yielding wonderful results. As I write this column, students in a VSGC-supported program at the University of Virginia (UVA) are preparing to launch from NASA Wallops Flight



VIRGINIA SPACE GRANT CONSORTIUM

In 1988, Congress enacted the NASA National Space Grant College and Fellowship Program (also known as Space Grant). The Virginia Space Grant Consortium (VSGC) received its designation from NASA in 1989.

The VSGC is a coalition of five Virginia colleges and universities, NASA, state educational agencies, Virginia's Center for Innovative Technology, and other organizations with a strong interest in math, science, engineering and technology education and the preparation of a qualified high technology workforce. The VSGC acts as an umbrella organization, coordinating and developing educational and research efforts for Virginia and the nation.

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Tactile Graphics Workshop *(continued from page 1)*



Ken Quinn, Student at Edinboro University, addressed "College Prep Through the Eyes of a Blind Student."



Educators worked with classroom science kits for use with exceptional students.

Learning Programs that are available for classroom use
COPYRIGHT FREE.

Other presenters included Lin Robinson, Virginia Beach Public Schools SOL Item Selection Teacher for the Blind and VI, Dr. Darlene White and Gail Heinrich of the Virginia School for the Deaf, Blind and Multi-disabled in Hampton, and Ken Quinn, student at Edinboro University. Nick Koltun, Manager, Educator Resource Center for NASA Langley at the Virginia Air and Space Center, provided participants with sample educational materials from NASA's vast resources. The overall quality and completeness of the workshop was rated 4.9 on a 5-point scale by participants!

The assistive technology workshop was a collaborative effort with Hampton's Virginia School for the Deaf, Blind and Multi-Disabled through SERCH (Southeast Regional Clearinghouse) grant funds and the American Foundation of the Blind.

The Virginia Department of Education was supportive of this training effort and has agreed to work closely with the VSGC in coordinating future workshops across the state. VSGC is working with the NASA education group in incorporating the assistive technology materials developed for space sciences.

For more information, contact Barbara Murray at brmurray@odu.edu



Barbara Murray, VSGC Educational Programs Manager, confers with Educators at Assistive Technology Workshop.



Dr. David Hurd discussed ways blind students have discovered the heavens through tactile star charts, planetarium and solar system models.

The Director's Corner *(continued from page 2)*

Facility the payload they have developed to study poultry farm runoff effects on the Chesapeake. Faculty and students from Old Dominion University, Virginia Tech, and UVA are working on a VSGC project in support of NASA Langley Research Center's MicroMAPS (Measurement of Air Pollution from Satellites) instrument. They are planning for an early fall mission on the high-altitude Proteus aircraft. Our National Science Foundation project with ODU and other partners is making a real difference by providing graduate students to work 20 hours per week with 4th and 5th grade teachers and students in Portsmouth and Norfolk. Our OVERspace Educators are developing classroom mate-

rials and planning for workshops for Virginia educators on using GPS, GIS and satellite imagery as exciting teaching and learning tools.

Our Consortium is in the midst of a strategic planning process that will serve as a compass for future programs. We will continue to build upon our tradition of partnerships for education, research, and workforce development.

Mary Sandy

Virginia Space Grant Sponsors Centennial of Flight Lecture Series at Virginia Air and Space Center



Voyager Astronaut Dick Rutan kicked off Virginia Air and Space Center's Centennial of Flight Lecture Series on April 2. Virginia Space Grant Consortium and NASA Langley Research Center are sponsors of the series.

Rutan made history in December 1986 after completing a nine-day, three-minute and forty-four second round-the-world, non-stop and non-refueled flight, setting an absolute world's record that still holds today. Rutan told of his tale of the magnificent Voyager project and flight, and also of his North Pole adventure. The Voyager story is one of tremendous courage, vision, and adventure, and is often referred to as "aviation's last first."

Celebrating 100 years of man's first flight, the lecture series explores aviation from the Wright Brothers to the future of air travel. Visitors can experience the history of aviation through the eyes of those who have taken it to a whole new level. Upcoming lectures are:

➤ **Colonel Jay Welsh presents Langley Field: The Early Years
June 4, 2003 – 7 p.m.**

Retired Air Force Colonel Jay Welsh has spent the last 40 years, 30 of them in an Air Force uniform, working with people who he says "every day make possible the world's best Air Force." Colonel Welsh served two tours and 11 active duty years at Langley Air Force Base. As America's oldest continuously active military airfield, it is the one place he says, "where much of military aviation history was made." Colonel Welsh will share the base's history and its relationship to the growth of American airpower touching on Langley's "pre-history" and its early years. Using historical footage and personal interviews, he chronicles the accomplishments of four World War II Peninsula aviators.



➤ **Jim Slade presents One Hundred Years of Flying
August 13, 2003 – 7 p.m.**

As a journalist and pilot, Jim Slade has witnessed some of the truly pivotal events of this century. Slade, who has dealt personally with the astronauts, engineers and scientists who made it happen, describes the Apollo moon landing programs as 'prime-turn' in human evolution and he shows you why. Slade talks in depth about personal experiences in the search for Amelia Earhart, Lindbergh's Spirit of St Louis, the Wright Brothers and what you've never heard before.

For more information, visit VASC online at www.vasc.org

VSGC Teams with Vax-MAGIC to Develop Geospatial Science Resources

VAX-MAGIC (Virginia's Access-Mid Atlantic Geospatial Consortium), a NASA-Stennis sponsored and George Mason University-led consortium of 8 universities collaborating to create readily useable geospatial data assets, has selected VSGC to manage multiple projects in its efforts to assist governmental decision makers at all levels.

Geospatial science is the premier tool for understanding and managing how humans interact with their surroundings, from the heart of the city to the depths of the forest. NASA satellites constantly circle the globe, transmitting the multispectral information from which geospatial science is developed. This new resource has tremendous potential for improving governmental planning at all levels.

VAX-MAGIC intends to make remote sensing of the earth's surface into a routinely used tool for local, city and state planning. To reach that goal VAX-MAGIC is funding and developing a broad spectrum of projects: from developing new curricula for community colleges and undergraduate institutions, supporting student research projects, training Cooperative Extension agents to work with their clients on GPS based solutions for land use, to developing a specific application for preparing emergency planning for flooding in Fairfax county. VAX-MAGIC has set up feedback paths with government at all levels so the scientists can truly understand what will be needed to realize the full potential of the tools they will place in the hands of the decision makers.

With funding from VAX-MAGIC, the VSGC has worked with the Virginia Institute of Marine Science to develop an on-line GIS tutorial, sponsored workshops at Virginia Tech to enable Cooperative Extension agents the capability to apply geospatial technology and techniques to problems at the local level throughout the state, and worked with the University of Virginia to support the launch of student developed specialized sensors on a series of sub-orbital rockets that will study water pollution from the Eastern Shore. The VSGC also leads the Consortium's Education Working Group.

***For more information contact John Companion
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Solar System Educators Program Orbits Nation for the Fourth Year

The VSGC is now in its fourth year of co-managing the NASA/JPL Solar System Educator (SSE) Program with Space Explorers, Inc. of DePere, Wisconsin as a partner. The heart of the program is a network of highly motivated educators from across the country whose goal is to inspire America's students, create learning opportunities, and enlighten inquisitive minds by engaging them in the Solar System exploration efforts conducted by NASA.

Currently, VSGC's role is the coordination of an implementation grant program with Space Grant Consortia nationwide that use SSE's to undertake programs. Five hundred dollar grants are awarded with multiple grants issued for larger events. To date, 31 Space Grants have partnered with educators to conduct training programs with awards totaling \$70,538.

Solar System Educators recruited by VSGC in the spring of 2000 were comprised of K-12 educators from the informal education community that included museums, science centers, learning centers, and planetariums. Each educator has a strong background in teaching science or math and teacher training.

VSGC also coordinated SSE training institutes at the Jet Propulsion Laboratory during their first two years of the program. Educators agreed to complete a minimum of three outreach workshops reaching at least 100 teachers annually.

Leading workshops around the country that show other educators how to creatively and successfully incorporate NASA materials and research into their classes, over 3,000 educators have been trained since the program's inception. All SSE's receive online training, support, and invitations to special events throughout the year.

***For more information, contact Brenda Neil
at bneil@odu.edu***



OVERspace

"Observing Virginia's Environmental Resources from Space"

VSGC Launches *OVERspace* Professional Development Program for Virginia Educators

Infusing the wonderment of space-age technology into the classroom for analysis and problem solving using "interactive maps" to visualize information will be the pivotal impetus in 2003 as VSGC's *OVERspace* project seeks to empower a cadre of twelve K-12 highly motivated Virginia teachers selected to become *OVERspace* Educators. Charged with training K-12 Educators statewide over the next few years in the emerging technologies of Global Positioning System (GPS), Geographic Information Systems (GIS), and remote-sensing, *OVERspace* Educators will enable Educators to implement their training in the classroom to engage the students creatively within an interdisciplinary learning environment.

Because of the significant value of using geospatial data to create meaningful learning experiences in math, science, technology, geography, social studies and language arts, the VSGC and partner Virginia Department of Education (VDOE), undertook this project to develop Standards of Learning (SOL)-based curriculum materials to enhance learning that results from the real-world applicability of data about our Earth from space missions. The updated Virginia's Science SOL, released in January 2003, includes the instruction and knowledge of GPS.

"The GIS software is the application tool that allows teachers to creatively assist learners to 'see' what the data are predicting or confirming about the topic students are researching," stated Barbara Murray, VSGC Educational Programs Manager. "The use of data in this manner allows for increased critical thinking skills and reveals a multidimensional approach to teaching, thereby engaging the diversity of multiple intelligences present in the classroom," Murray continued.

As a result of teacher training, the students will be expected to use GPS units and to present GIS applications for public presentations at school and community meetings to encourage involvement by community and state agencies, which will simultaneously increase and promote public awareness of GIS throughout the community.

"Virginia schools and community leaders have already begun to invest in desktop applications of ArcView software because of the more frequent teaching of GPS and GIS technologies as well as the more frequent use of remote sensing data by teachers," noted Murray.

For more information, contact Barbara Murray at brmurray@odu.edu

Some Ways GIS is Used

- Emergency Services
- Environmental
- Natural Disasters
- Education
- Government
- Medical
- Industry, Businesses
- Defense

**Wherever
Spatial Data
is needed**



GPS 76





OVERspace

"Observing Virginia's Environmental Resources from Space"

Teacher Training Institutes Spurred VSGC's OVERspace Programs to New Heights in 2002



Alicia Feddor, NASA Education Specialist, mentoring OVERspace Educators at 2002 Summer Institute



OVERspace Educators using GPS technology



OVERspace Educators having a great time learning about NASA's International S'Cool Program



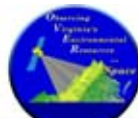
Richard Byles, Director of Education, Virginia Air and Space Center, presents GIS concepts



Steve Dacey, NASA-Goddard Education Specialist, demonstrates remote sensing software.



Four OVERspace Educators learn about GPS usage with Extension agents



12 OVERspace GIS related lesson plans in development include:

1. Upper Roanoke River Watershed-A Learning Adventure
2. Nifty Fifty! – (Studies of VA provinces and regions)
3. Water, Water Everywhere, But not a Drop to Drink! (Water supply issues)
4. Medical Geography- Vaccination in the U.S. -(Mapping disease spread)
5. Colonial Economics and Immigration- (Mapping historic sites & battles)
6. Living Life on the Edge! -(GIS uses in natural disasters)
7. Light My Fire! -(Studies of controlled burns and wildfires & satellite data))
8. A Bird's EyeView -(Studies of the NASA SATS aircraft with GPS)
9. It's Raining, It's Pouring! -(Studies of precipitation and its impacts)
10. Virginia Physiography -(A study of the specific provinces of VA)
11. MicroClimates - (Student data collection and analysis of climate types)
12. Healthy Chesapeake? -(Studies of Virginia's watersheds)



Educators present GIS lesson plans in Virginia Beach

2003-2004 Research Scholars and Fellows Awarded \$250,200

The Virginia Space Grant Consortium awarded a total of \$250,200 in scholarship and fellowship awards for the 2003-2004 academic year. The awards included 11 Aerospace Undergraduate Research Scholarships, 14 new Aerospace Graduate Research Fellowships, and the renewal of 13 previously awarded Graduate Research Fellowships to students at five Virginia colleges and universities. All recipients are enrolled in a course of study with aerospace relevance at one of the five Virginia Space Grant Colleges—*College of William and Mary, Hampton University, Old Dominion University, University of Virginia, and Virginia Polytechnic Institute and State University.*

The one-year Aerospace Undergraduate Research Scholarships are valued at up to \$8,500. The Aerospace Graduate Research Fellowships are \$5,000 awards and can be renewed for up to three years. Space Grant Scholars and Fellows must be engaged in an identified research project with a faculty advisor as part of their academic program. The awards, which are determined by a committee of Consortium representatives, are based on evaluation of the applicant's research proposal, past scholastic achievement, and academic potential.

Major goals of the VSGC are to help develop the engineers and scientists of the future and to broaden the opportunities for all students to pursue science and aerospace careers. This year, 53% of scholarships and 41% of fellowships have been awarded to females and/or minority members traditionally underrepresented in the science and engineering fields.

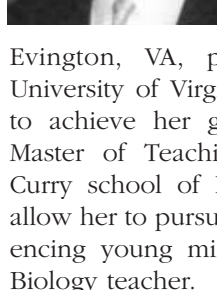
Since receiving Space Grant designation from NASA in 1989, the Consortium has awarded over \$2.9 million in funding to more than 520 Virginia students. To date, 131 Undergraduate Research Scholarships totaling \$817,000 and 215 Graduate Research Fellowships totaling more than \$1.7 million have been awarded. Funding for these awards comes from the National Aeronautics and Space Administration and the Commonwealth of Virginia.

The fall issue of *Virginia Spacelink* will feature the Undergraduate Research Scholarship and Graduate Research Fellowship awards.

Teacher Education Awards 03-04



William Brethauer, Norfolk, VA, is pursuing a B.S. degree in Technology Education from Old Dominion University and plans to teach his love of technology to students in public school upon completion of his degree.



Ashley Creasy, Evington, VA, plans to attend the University of Virginia with future plans to achieve her goal of completing a Master of Teaching degree from the Curry school of Education. This will allow her to pursue her passion of influencing young minds in her role as a Biology teacher.



Stephanie Fagg, Christiansburg, VA, is pursuing a Master of Teaching degree from Virginia Tech in Technology Education. Her future plans are to teach Technology education classes and make a difference in the life of children.



Pamela Laster, Virginia Beach, VA, will be attending Hampton University majoring in education. She plans to pursue her goal of teaching in elementary education.



Faith Martin, Blacksburg, VA, is pursuing a B.S. degree in Mathematics Education from Virginia Tech. She plans to teach mathematics at the high school level in a rural area in Virginia.

Alisa Mook, Blacksburg, VA, attends Virginia Tech and is pursuing a M.S. degree in Education. Her interests and talents are leading her to a dual major in Early Childhood Education and Secondary Math Education. Her plans will take her into the school system to either teach young children or high school math students.





Teacher Education Awards *(continued)*



Emilia Szachowicz, Forest, VA, will be attending the Curry School of Education at the University of Virginia in the fall of 2003. Her plans include completing her Master of Education degree and then to pursue her life-long dream of becoming a teacher and making a difference in the lives of children.

Christine Witt, Blacksburg, VA, is a student at Virginia Tech with goals of completing the Master of Education degree. She plans to pursue a degree in Human Development/ Early Childhood and will fulfill her plans to teach students.



Community College Awards 03-04



Don Betiong, Virginia Beach, VA is studying Computer Engineering at Tidewater Community College. He plans to pursue a Bachelors degree in computer engineering at Old Dominion University.



Michael Hightower, Virginia Beach, VA, is majoring in Civil Engineering at Tidewater Community College and plans to pursue a Bachelors degree in Civil Engineering from Old Dominion University.

Luke Catella of Plainview, VA is majoring in mechanical engineering at Thomas Nelson Community College and plans to obtain a Bachelor of Science degree in mechanical engineering at Old Dominion University.



Aaron Hike, Front Royal, VA, attends Lord Fairfax Community College and is majoring in Science. He plans to continue his studies and obtain a Masters and PhD in the field of Physics.



Lonnie Farmer from Lebanon, VA is a computer electronics major at Southwest Virginia Community College. He plans to complete a four-year degree in his chosen field of study.

Joseph Rowe, Colonial Beach, VA, is majoring in Applied Science at Rappahannock Community College with plans to complete the VCU-BSN and VCU-MSN program after completing his Associate Degree.



Jamie Smith of Weems, VA, is majoring in Engineering Technology at Rappahannock Community College. He plans to earn a Bachelors degree in Engineering Technology at Old Dominion University.



Geospatial Extension Position Created from NASA Award

The Virginia Space Grant Consortium and Virginia Tech achieved a long term goal with the award of a \$100,000 grant from NASA to establish a Geospatial Specialist position in Cooperative Extension and the College of Natural Resources at Virginia Tech. Virginia is one of only 11 States to have such a program. An advisory committee has been drawn from our partners in this effort: NASA Langley, the Virginia Community College System, the Virginia Geographic Information Network, NASA Stennis, NASA Goddard, the Virginia Sea Grant, and Virginia's Access-Mid Atlantic Geospatial Information Consortium (VAX-MAGIC) to ensure the maximum effectiveness and impact.

Our goals for this program are:

- *To create and staff a Space Grant Geospatial Specialist position in Cooperative Extension at Virginia Tech, who will serve as a resource and catalyst for NASA-related geospatial education, training and workforce development throughout the state;*
- *To develop and disseminate Geospatial educational materials and course work;*
- *To enhance faculty preparation through workshops and training material;*
- *To establish a training initiative with the Virginia Community College System;*

- *To assist the VSGC and Cooperative Extension with educational outreach programs, materials and training for teachers and undergraduate students related to the use of satellite imagery as a real world teaching and learning tool.*

Virginia Tech is also providing substantial support for the position. Hiring for the position is expected to be complete by June 1.

The position is being further enhanced by additional funding for a supporting Geospatial Applications Designer from the George Mason University-led VAX-MAGIC effort, which is sponsored by NASA Stennis.

"People at all levels can benefit from a broader exposure and understanding of how geospatial science can have a positive impact on their lives," said John Companion, VSGC Research Programs Manager. "The creation of this position will help to deal with the serious shortfall of professionals and trained specialists who can utilize geospatial technologies in their jobs," Companion added.

The worldwide market for geospatial technologies has enormous market potential. Currently estimated at \$5 billion, the market is projected to have annual revenues of \$30 billion by 2005. (NASA 2001)

For more information, contact John Companion at jcompani@odu.edu

Shopping On-line Yields Funding for VSGC

Individuals who regularly shop on-line can have a portion of retail costs rebated to the VSGC for scholarships and educational programs. Here's how it works:

- Go to the National Space Grant Foundation website www.spacegrant.org
- Click on "Our Friends" on the left
- Click on the "GreaterGood.com" logo

You are now on the shopping selection screen with all of your favorite books, magazines, music, movies, pets, flowers and gifts, computers and software, home and art,



women's clothing, health and beauty, consumer electronics, toys and education shops, and other great deals. You will see at the top of the screen the message, **"up to 15% of each purchase automatically goes to the National Space Grant Foundation."**

Funds are considered to be unrestricted gifts that will benefit in addition to VSGC, all 52 Space Grant Consortia!

Shop where it matters...and help increase the National Space Grant Foundation's Endowment at the same time.

Research Scholars and Fellows Gather at VSGC's Annual Student Research Conference

Research efforts in aerospace systems concepts and analysis, atmospheric sciences, data analysis and modeling, structures and materials, aerospace vehicle system technology, man-machine interface, and applied physics were presented by 28 of Virginia's undergraduate and graduate researchers at VSGC's fifth annual Student Research Conference. Held at the Old Dominion University Peninsula Higher Education Center in Hampton, the conference was the culminating activity for all VSGC-sponsored Graduate Fellows and Undergraduate Research Scholars to present their research completed during the 2002-03 year.

"These graduate fellows and undergraduate scholars are our future workforce for NASA," stated Barbara Murray, VSGC Educational Programs Manager. As future science and engineering workers, it is critical for these students to receive first-hand experience in

accepting and responding to questions on their research. Conference attendees included Space Grant University advisors and researchers from NASA Langley Research Center, a VSGC member.

Fellows presented their research with PowerPoint multimedia presentations and undergraduate Scholars presented their research via poster presentations. Christopher Hall, Professor of Aerospace and Ocean Engineering at Virginia Tech and member of VSGC's Advisory Council, presented an invigorating keynote message, "***Design, Build, Orbit: University Spacecraft Programs.***"

Student research briefs will be posted on the VSGC website (www.vsgc.odu.edu) later this summer and papers will be electronically published in a 2003 Student Research Conference Proceedings.

For further information contact Barbara Murray at brmurray@odu.edu



Sharlotte Bolyard, University of Virginia Aerospace Engineering student discusses with colleague her poster presentation on Pressure Sensitive Paint Measurements in Low Density Flow



Chris Hall, Virginia Tech Professor, gave keynote address on university spacecraft programs



Daniel Watkins, ODU Physics student explains classical dynamics of quantum systems to VSGC Director, Mary Sandy

VIRGINIA SPACE GRANT CONSORTIUM



TRIBUTE TO NASA'S STS-107 COLUMBIA SPACE SHUTTLE CREW

*Near the snow, near the sun, in the highest fields,
See how these names are feted by the waving grass
And by the streamers of white cloud
And whispers of wind in the listening sky.
The names of those who in their lives fought for life,
Who wore at their heart's the fire's center.
Born of the sun, they traveled a short while toward the sun
And left the vivid air signed with their honor.*

From "I Think Continually of Those Who Were Truly Great" by Sir Stephen Spender (1909-1995)

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