2013-2014 Undergraduate Scholarships (continued)

Gaither, Arielle Goontz, Larry Kosko, Steven Lucas. John McKenzie, Ozias Melroy, Samantha Palley, David Posa, Rebecca Rogers, Eric Schultz, Justine Strader, Jared WVU Institute of Technology Burdette, Derek Cox, Jordan Dinh, Thy

Ross, Garron Shaffer, Christopher Slater, Bryan WV Wesleyan College Bair, John Greza, Cameron Haines, Thomas Hoone, Cullen Hypes, Shane Kimble, Dustin Schiffour, Mark Stinson, Samantha Stroud. Bronnie Todd, Landon Turner, Cody

NASA West Virginia Space Grant Consortium

The NASA WVSGC is a National Aeronautics and Space Administration (NASA) sponsored organization established in August 1991. It is comprised of 12 West Virginia academic institutions and 8 corporate and scientific partners. It is dedicated to building research infrastructure and promoting Science, Technology, Engineering and Math (STEM) education in West Virginia.

Affiliates

West Virginia University (Lead) Bethany College Bluefield State College Fairmont State University Glenville State College Marshall University NASA Independent Verification & Validation Facility NRAO Green Bank Facility Polyhedron Learning Media, Inc.

Upcoming Events

NASA Research Day at Shepherd University NASA Research Day at WV State University NASA Research Day at Marshall University Summer Aviation Camp at WVU SPACE Day at WV Wesleyan Collage

The Clay Center for the Arts & Sciences of WV TMC Technologies, Inc. West Liberty University WV High Technology Consortium Foundation West Virginia State University WVU Institute of Technology West Virginia Weslevan College Wheeling Jesuit University

April 16, 2014 April 25, 2014 May 2, 2014 June 11-13, 2014 October 11, 2014

Shepherd University TechConnectWV

Share your Story

Contact NASA WVSGC to share your story and keep us updated on ongoing events, we would love to feature you in our next issue!

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NASA WVSGC

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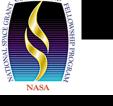
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The NASA West Virginia Space Grant Consortium (WVSGC) supports many programs that focus on collaborations with high-technology research. industries, student fellowships as well as K-12, and public outreach programs. In this issue, we aim to highlight a few of those programs.



At the National Council of Space Grant Directors Spring 2014 Meeting, pictured left to right: Anne Barth (TechConnectWV), Majid Jaridi (WVSGC), Mary Sandy (Virginia SGC), Nancy Vinh (WVSGC) and Candy Cordwell (WVSGC)

National Council of Space Grant Directors Spring 2014 Meeting

The National Council of Space Grant Directors Spring 2014 Meeting held in Washington, DC was a very eventful and informative meeting.

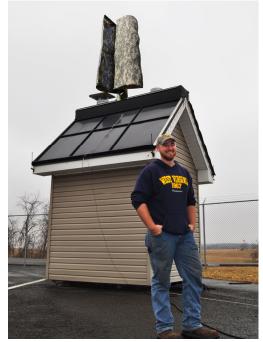
Nathaniel Fowler and Samantha Melroy, both undergraduates at West Virginia University (WVU) are recipients of the 2013-2014 Undergraduate NASA New leadership at NASA included Dr. Lenell Allen, the Scholarship (all awardees are listed on page 3-4). Director of Aerospace Research and Career Working with mentor Dr. James Smith, a Professor in Development, Office of Education and Dr. Roosevelt the Mechanical and Aerospace Engineering Johnson, the Acting Associate Administrator for Department at WVU, Fowler & Melroy have furthered Education. Dr. Allen shared updates at NASA including their scholarship award into a project that is currently in the introduction of an iPhone application to view our the stages of obtaining a patent with the United States planet's vital signs in 3D, "Earth Now." Dr. Johnson Patent and Trademark Office. Melroy's scholarship emphasized the importance of transparency and allowed her to assist Fowler in the feasibility study of communication between the Space Grant Consortia his project. "Control Methodology for a Hot Water and NASA. In all, NASA emphasized that the National Energy Reduction System." Fowler's project focuses on Space Grant College and Fellowship Program is a the use of "green heat" in creating a system to provide highly regarded and well-recognized program. There a simple and cost effective way to offset household will also be a competitive opportunity for partnerships energy costs. It uses the combination of a wind turbine. with community colleges and technical schools a patent-pending viscous controller, and thermal solar released in the near future.

NASA WVSGC

NASA West Virginia Space Grant Consortium

NEWSLETTER

One of the discussions between the Consortia was the use of social media such as LinkedIn, Facebook and Twitter, and their ability to inform the public about Space Grant programs. We, at the NASA WVSGC, aim to increase our public presence using these social media resources.



Nathaniel Fowler, a WVU student with his design that promotes renewable energy

NASA Undergraduate Scholarship Award Leads to Larger Project

SPRING 2014

collector as an add-on to an existing hot water tank. This technology allows for the average homeowner and/ or small business owner to offset their current energy usage, incorporate renewable energy sources, and offer a three to four year return on their initial investment. The overall goal is to implement this system into a wider market in order to potentially offset the rising energy demands for the United States. Fowler is pictured on page one with a wind turbine and solar panel, both components in his "green heat" technology.

presenters from four schools across the state, WVU, WVU Institute of Technology, Shepherd University, and WV Wesleyan College. In the spring of 2014 alone, SPOT presentations have been given over 20 times with an impact of over 1,000 students ranging from kindergarten to high school. There will be future opportunities for new students to get SPOT training and be able to give brand new presentations to students across the state. If you are interested in learning more or getting involved with SPOT, contact Justin Smith at NASA IV&V (justin.l.smith@nasa.gov) or Kathryn Williamson at NRAO, Greenbank (kwilliam@nrao.edu).



SPOT presenters in front of the NRAO, Green Bank Telescope

Space Public Outreach Team

The Space Public Outreach Team or SPOT is a program new to the state of West Virginia. This is an adopted program from the state of Montana where it has been very successful over the past 17 years. The goal of SPOT is to allow college students to go out to schools across the state of West Virginia ranging from kindergarten to high school and provide a technical presentation about a STEM topic that they have learned through their training.

At this time, there are two presentations offered to schools: The Invisible Universe, which was created by National Radio Astronomy Observatory (NRAO) – Greenbank, and Mars: Past, Present, Future, which was created by NASA IV&V in Fairmont, WV. These presentations last about 45 minutes each and provide benefits to both the students who give them, and the students who get to watch them. These presentations are adapted to the appropriate grade level and have major ties to West Virginia throughout the presentation. This technique shows how important STEM education is in West Virginia and will hopefully inspire these students to get involved in these types of careers when they see everything that is happening right in their home state.

For the 2013–2014 academic year, SPOT has been very successful across the state with 15 trained



A girl scout learning about hand-eye coordination, one of many STEM activities planned for Girl Scout Math and Science Day at WVU

Girl Scout Math and Science Day

NASA WVSGC, students from SPACE and WVU Rocketry Club attended the Girl Scout Math and Science Day. It was a day when girl scouts can come together and learn about math, science, and engineering with college-age mentors. It was a full day of activities that showed just how fun STEM-related careers can be!



Grow-Boticists at North Elementary School in Morgantown, WV

TEKids

TEKids offers students the opportunity to learn about technology through "hands-on problem-solving, experimentation, and technology exploration." At the culmination event held at North Elementary School in Morgantown, WV this past March, students were able to share everything they learned through the "Grow-Boticists" program (pictured at the bottom of page 2). It's a program where students learn about circuitry and programming concepts on an Arduino (a single-board microcontroller, which makes the application of interactive objects or environments more accessible). Information about this project can be found at their website, <u>www.tekids.org.</u>



Participants at the SFDC/SPACE Chapter Meeting pictured left to right, top row: Andy Shtanko (Shepherd), Conner Henson (Marshall), Joshua Waggoner (Shepherd), Steven Hard (NASA IV&V), Justin Smith (NASA IV&V), Jeffrey Northey (NASA IV&V), Thy Dinh (WVU Institute of Technology), Josh Hiett (WV Wesleyan), Nathan Tehrani (WVU); bottom row: Dimitris Vassiliadis (WVU), Jon Saken (Marshall), Majid Jaridi (WVSGC), Tracey Delaney (WV Wesleyan). and Ralph Wojtowicz (Shepherd)

Student Partnership for the Advancement of Cosmic Exploration

The Student Partnership for the Advancement of Cosmic Exploration (SPACE) was established to improve upon the students' comprehensive experience at college, with a specific emphasis toward developing and furthering space exploration. This past March, a meeting was held at WVU in order to chart the future of SPACE at each academic institution as well as the efforts to increase interaction among all SPACE chapters. Those in attendance included student leaders and faculty advisors from Marshall University, Shepherd University, WVU, WVU Institute of Technology, and WV Wesleyan College. SPACE chapters met with NASA WVSGC and project leaders at the NASA IV&V Facility (pictured above). Discussions included updates at the different SPACE chapters, assistance to start a SPACE chapter at Marshall University as well as expanding to other universities. Dr. Dimitris Vassiliadis, a Physics Professor at WVU, discussed the values of building a pavload and the future projects in place for SPACE. For additional information, contact the NASA WVSGC to be connected with a SPACE representative.

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2013-2014 Undergraduate Scholarships

Bethany College

DelGiorno, Alexander Duvall, Samuel Fischer, Jacob Jacobs, Morgan Lancaster, Amber Sroka, Kristen

Bluefield State College

Bolden, Antonio Reid, Ashley Richmond, Sasha Wiggins, Shakima

Fairmont State University Golian, Megan

Phillips, Bobbi Swiger, Courtney Glenville State College

Fuller, Adam Pifer, Steven Ramezan, Emily Rhodes, Jonathan Smith, Randy Taylor, Allison

Marshall University

Blankenship, Heath Campbell, Kristen Chaudhry, Sumaiya Cheeks, Shawn Davis, Daniel Fleming, Aubrey Foster, Patrick Gray, Miles Gudivada, Akhil Haldeman. Matthew Henson, Conner Hineman, Michael Lefevre, Anna McQuerrey, Jonathan Paris, Derrick Patel, Keyur Pelfrey Jr, Curtis Phelps, Stephen Simmons, Brian Vess, Andrew Watson, Dylan White, Logan Whitt, Allen Williams, Benjamin Yanev, Andrey **Shepherd University** Bass, Lawrence

Boucher, Donald Brooks, Simone Crites, Courtney Glewwe, Gareth

Goodman, Richard Grubbs, Austin Herbert, Rebecca Johnson, Darryl Logsdon, Kirsten Piatek, Emilie Revell, Dustin Shane, Caitlyn Shimer, Christian Simms, Gerren Tomlin, Jared Walker, Kayla Wells, Kyla West Liberty University Bell, Spencer Fagundo, Raquel Hall, Jesse Jackson, Nichole Knowlton, Samantha Lucero, Michael Mazzella, Leanne Humphrey, Victoria Wheeling Jesuit University Bain, Elizabeth Barker, Nathaniel Becca. Jeffrev Buch, Sarah Christman, Taylor Dwyer, Patrick Eisenhart, Andrew Huth, Collin King, Nicholas Pennacchio, John Schigel, Janelle Schnelle, Anthony WV State University

Dillon, Jordan Martin, Chandra McCoy, Markie Unselt, Desiree

West Virginia University

Ahrens, Caitlin Butcher, Trevor Carte, Nathan Cunningham, Virginia Khan, Amna Marchiny, Gary Maynard, Tessa Sardone, Amy Tehrani, Nathan Cordonier, John Dietzius, Barrett Fowler, Nathaniel (continued on page 4)

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