



Montana Space Grant Consortium News May, 2008

Research Initiation and Educational Enhancement Awards

In November, 2007, seventeen proposals were submitted for the 2007 Montana Space Grant/Montana NASA EPSCoR Research Initiation and Educational Enhancement funding competition. In March, 2008, seven of the proposals were funded to groups from across the state. The next Call for Proposals will be issued in early September, 2008; proposals will be due in late October, 2008.

2007 Research Initiation Awards

- *Radiation Hardened Dedicated Microprocessor for Software Reconfigurable Wireless Communication*, PI: Dr. Brock LaMeres, Department of Electrical and Computer Engineering, Montana State University
- *Thermo-Mechanical Characterization of Shape Memory Alloys*, PI: Dr. David Miller, Department of Mechanical & Industrial Engineering, Montana State University
- *Methanogenesis in Subglacial Environments – Biosignatures of Extraterrestrial Life*, PI: Dr. Andrew Mitchell, Center for Biofilm Engineering, Montana State University
- *Next generation LADAR for long-range, high-precision NASA applications*, PI: Dr. W. Randall Babbitt, Spectrum Lab, Montana State University

2007 Educational Enhancement Awards

- *Expansion of Geospatial Science Curriculum at the Salish Kootenai College*, PI: Dr. Adrian Leighton, Department of Natural Resources, Salish Kootenai College
- *Enhancing Education with Optical Aurora Detectors*, PI: Dr. Joseph Shaw, Department of Electrical and Computer Engineering, Montana State University
- *Development of an Experiential Introductory Astronomy Course at the University of Montana-Western*, PI: Dr. Craig Zaspel, Department of Environmental Sciences, University of Montana-Western

For more information about each of the projects, see the following pages:

http://spacegrant.montana.edu/Text/NASA_EPSCoR.html

<http://spacegrant.montana.edu/Text/ResInitGrants.html>

<http://spacegrant.montana.edu/Text/EdEnhanceGrants.html>

2008 Summer Interns



O'Hern Garcia Getty Brendal Racek Anderson Nissen Mashburn Kratochvil

We have 20 students participating in MSGC internships this summer. The BOREALIS and Space Science and Engineering Laboratory (SSEL) internships take place at the MSU-Bozeman campus. Six interns will be traveling out of state for their internships. The students, their home institutions, and the locations of their summer internships are:

George Anderson, MSU, Jet Propulsion Laboratory (CA)
Floyd Azure, MSU, Space Science and Engineering Laboratory
Sean Bannon, UM, Space Science and Engineering Laboratory
Ashley Brendal, MSU, Anasphere, Inc. (Industry Affiliate, Bozeman)
Andrew Cifala, Carroll College, Space Science and Engineering Laboratory
Alania Garcia, MSU, Space Science and Engineering Laboratory
Amelia Getty, MSU, BOREALIS High Altitude Ballooning
Sebastian Goodman, MSU, Jet Propulsion Laboratory (CA)
Jennifer Susan Hane, MSU, BOREALIS High Altitude Ballooning
Scott Kratochvil, MSU, Langley Aerospace Research Summer Scholars Program (VA)
Aaron Kreitinger, MSU, BOREALIS High Altitude Ballooning
Michael Lenander, MSU, BOREALIS High Altitude Ballooning
Conrad Martin, MSU, BOREALIS High Altitude Ballooning
Keith Mashburn, MSU, Space Science and Engineering Laboratory
Patrick Moholt, UM, Space Science and Engineering Laboratory
Tim Montague, MSU, NASA Robotics Academy Staff (Goddard Space Flight Center, MD)
Jayson Nissen, MSU, BOREALIS High Altitude Ballooning
Sean O'Hern, MSU, Jet Propulsion Laboratory (CA)
David Racek, MSU, Jet Propulsion Laboratory (CA)
Shraddha Rane, MSU, BOREALIS High Altitude Ballooning

2008 Graduation

In 2008, we had 16 MSGC supported students graduate. Congratulations to:

George Anderson, MSU, BS in Mechanical Eng.
Graham Baskett, MSU, BS in Mechanical Eng. and Physics
Angela Des Jardins, MSU, PhD in Physics
Shane Driscoll, MSU, BS in Mechanical Eng.
Autumn Glasgow, MSU-Billings, BS in Mathematics
Janet Glenn, MSU, BS in Mechanical Eng.
David Hoffman, MSU, Masters in Electrical Eng.
Clark Kogan, UM, BA in Physics and Mathematics
Teresa Lannen, MSU, BS in Applied Mathematics
Joan Littleboy, Chief Dull Knife College, AA in Nursing
Mark Malloy, UM-Western, BS in Mathematical Biology
Richard Monroy, MSU, BS in Civil Eng.
LaDawn Plainfeather, Little Big Horn College, AA in Pre-Med
Jarred Rensvold, MSU-Billings, BS in Biology
Stephen Schutten, UM, BA in Mathematics and Physics
Josh Wold, Montana Tech, BS in General Eng.



Bill Hiscock, MSGC Director at MSU
Graduation with Angela Des Jardins,
MSGC Deputy Director



Glenda Winslow, MSGC Program
Coordinator and Angela Des Jardins,
MSGC Deputy Director, in front of the
'Mountains and Clouds' sculpture in the
Hart Senate Building

Meetings

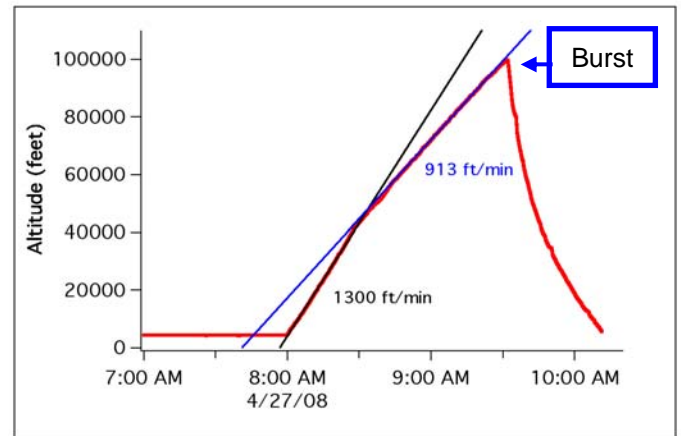
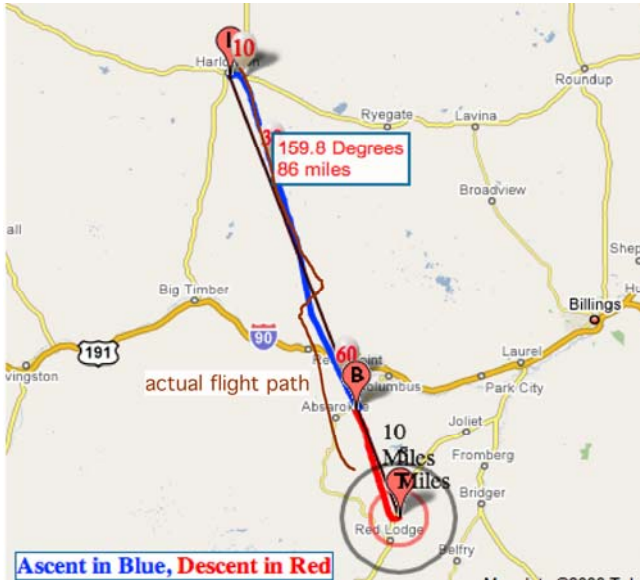
In February, 2008, Bill Hiscock, MSGC Director, Angela Des Jardins, MSGC Deputy Director, and Glenda Winslow, MSGC Program Coordinator, traveled to Washington, DC for the Spring meeting of the National Council of Space Grant Directors. While they were there, they visited with all three Montana congressional offices about the Montana and National Space Grant programs.

Travel Opportunity!

The next Western Regional Space Grant Meeting will be held Sept. 25-27 at the Jackson Lake Lodge in Grand Teton National Park, hosted by the Wyoming Space Grant Consortium. Since this location is close to Montana, we will be able to invite a couple of our Academic Affiliate Representatives to attend and learn more about other states' Space Grant programs. If you are interested in attending this meeting, let us know!

April BOREALIS Flight

On April 27th, 2008, the MSU BOREALIS (Balloon Outreach, Research, Exploration, And Land Imaging System) team successfully launched a balloon to 99,790 ft. Included in the balloon's payload was an experiment to measure the change in gravity with respect to altitude. Students are still analyzing the data from the experiment.



Red: Altitude vs. Time plot

Flight Path, predicted and real. Start: Harlowton, MT



High above the mountains of Montana (from the flight camera)