

**INSIDE THIS  
ISSUE**

**South Dakota Space Days P. 1**

**20th Year Program Evaluation by NASA P. 1**

**Sioux Falls First Lego League Compete in FLL Iowa Tournament P. 2**

**Washington Pavilion Accreditation from AAM P. 2**

**2008 Summer Camps P. 3**

**PIG Grants Awarded P. 3**

**NASA: SOLAR Institute Project Awarded Funding P. 3**

**Fellowship/Scholarship Stipend Awards P. 4**

# The Affiliate

FALL / WINTER 2008

## South Dakota Space Days

Approximately 2,000 students, teachers, and the general public attended South Dakota Space Days on Oct. 16-17, 2008 at the Watertown Event Center in Watertown, SD.

The 2008 event was organized and hosted by SDSGC affiliate Lake Area Technical Institute and the Watertown school system. The Consortium Management Team believes that Space Days 2008 was clearly one of the best ever!

Several NASA experts presented at SD Space Days 2008, in addition to the cadre of NASA staff that accompanied NASA's Exploration semi-tractor trailer exhibit. Some of the speakers

included the following NASA personnel: Astronaut Mike Fossum, Dr. Jack Bacon, Dr. Ray Wheeler, and Angelo Casaburri.



Teachers could select up to six events for their classes to attend from among the presentations and the 16 individual hands-on "missions;" typically four missions and two presentations per class. The missions were developed by local teachers so that the content was based on the science standards.

Approximately 81% of the 298 students surveyed indicated having a good time at space days, while learning a lot from the missions and the speakers. Of the 298 students surveyed, 31% indicated that they are considering a career in aerospace and/or a STEM related field as a result of their Space Days experience.

"It was an amazing experience!" one student commented. "Well organized and exceptional variety! Hats off to all who took time to organize the day! Outstanding job!" a teacher commended.

Space Days 2009 will be hosted at SDSM&T in Rapid City on October 1-2, 2009.

## 20th Year Program Evaluation by NASA

On June 6th, 2008, NASA released the guidelines for the 20th Year Evaluation which was to be submitted Oct. 2nd, 2008.

NASA's 15th Year Evaluation resulted in the probationary status of the SDSGC. Therefore, this evaluation represented a crucial opportunity for the SDSGC to demonstrate the overall success and value added to South Dakota and to NASA

during the reporting period (2003-2007).

The focus of the Program Performance Results (PPR) Report submitted to NASA focused on how the SDSGC redesigned its management structure from the ground up and how this improvement process resulted in a new focus on NASA and state needs, achievable steps toward reaching the Consortium's goal, and

evaluation methods that guide the Consortium in continuing to improve the effectiveness of the program.

Although the results of the evaluation assessment by NASA have not yet been released, the SDSGC remains confident that we have successfully redesigned our goals and objectives to align with NASA's expectations.



North Middle School students and Team Patriots members Cheyenne Overgaard and Jennifer Mansfield prepare their robot.

## Sioux Falls First Lego League Teams Compete in FLL Iowa Tournament

Eight Sioux Falls First Lego League teams competed in the Western Iowa Regional FLL Tournament in Sioux City on 12/6/08. A good time was had by all including team members, family members, friends and coaches. Special congratulations to the following teams who either won a trophy or won honorable mention in one of the judging categories:

*Judges Award* - Honorable Mention - Team 5132 - Ro-

botic Wolverines (Whittier MS)  
*Team Spirit Award* - Winner - Team 5125 - Robot Geeks (PHMS)

*Robot Performance Award* - Winner - Team 5124 - Hydro-Maniacs (O'Gorman)

*Rising Star Award* - Winner - Team 5131 - Ballistic Brick Buds (Challenge Center)

*Technical Award* - Winner - Team 5126 - Memorial Middle School

Four of the eight Sioux Falls First Lego League participating teams won a trophy which entitles them to attend the FLL Iowa State Tournament in Ames, Iowa on January 17, 2009.

These teams are a subset of the Sioux Falls area teams the South Dakota Space Grant Consortium sponsored through a SDSGC PIG grant awarded to affiliate member, Augustana College, in 2007.

**“The Washington Pavilion now sits alongside some of our nation’s most esteemed American institutions.”**

## Washington Pavilion of Arts and Science Awarded Accreditation from the American Association of Museums

After several years of preparation and self-study, “the Washington Pavilion of Arts and Science (WPAS) achieved accreditation from the American Association of Museums (AAM) on 8/12/08. This is the highest national recognition a museum can achieve.

Of the nation’s nearly 17,500 museums, fewer than 5 percent are currently accredited. The WPAS is not only the first science center to receive accreditation for the State of South Dakota, but it is also the first multifaceted facility to receive this honor in the greater Midwest region!

“The Washington Pavilion now sits alongside some of our nation’s most esteemed American institutions,” said Gary Wood,

Washington Pavilion President/CEO. “Accreditation is another monumental step forward for our city not only in its efforts to be one of the greatest places to live and work, but also in shaping the future of the arts, sciences and education on the national scene.”

The AAM examiners concluded that, “The WPAS is an exceptional institution. The Trustees are remarkably in tune with the community and the Visiting Team was impressed by the depth of knowledge and commitment of the Board of Trustees. In the same fashion, the Visiting Team was impressed with the dedication and commitment of the staff of WPAS. The level of involvement and willingness of the Board and Staff to step out to support the

WPAS will lead it to further success. The WPAS is poised for growth and open to an expanded future. The Visiting Team members could not recall such a uniformly well run organization as the WPAS.”

Developed and sustained by museum professionals for 35 years, AAM’s Museum Accreditation program is the field’s primary vehicle for quality assurance, self-regulation, and public accountability. It strengthens the museum profession by promoting practices that enable leaders to make informed decisions, allocate resources wisely, and remain financially and ethically accountable in order to provide the best possible service to the public.

# Summer Camps



2008 ACE Campers pose in front of an F-16 at the SD Air Guard base in Sioux Falls.

**Aviation Career Education Camp**  
South Dakota State University's 16th annual Aerospace Career and Education (ACE)

Camp was held June 22-25th. This year's camp hosted 9 high school students (4 males and 5 females). Due to a considerable number of no-shows, student enrollment at the 2008 ACE Camp was lower than expected.

As a result of the low attendance at this year's ACE Camp, significant efforts will go toward outreach and engagement for next year's camp which will be held July 15-19, 2009.

## He Sapa Bloketu Wocun

Three He Sapa Bloketu Wocun camps were held from June 1st through June 26th in the Rapid City area. The goal of these camps is to nurture a geosciences learning community linked to culturally significant sites in the Black Hills, which were sacred to the Plains tribes, and to increase the participation of Native Americans in the geosciences.

Overall, the students attending the He Sapa Bloketu Wocun camps had a good experience. The camps were successful in terms of offering varied and novel experiences to the students as well as presenting the science and cultural topics.

Parent/guardian involvement, however, was low at all four camps and efforts will be made to draw them in for future years.

## PIG Grants Awarded

The SD Space Grant Consortium awarded \$50,000 to fund Project Initiation Grant (PIG) projects to be used during 2009.

Six applications were received for the PIG funding and three projects were awarded funding.

Qiquan Qiao, an Assistant Pro-

fessor of Electrical Engineering at South Dakota State University (SDSU) was awarded \$25,000 to fund his research project, "Initiation of a New Research Infrastructure for Space Power Generation."

Jeff McGough, Antonette Logar, and Edward Corwin,

three Professors of Computer Science at South Dakota School of Mines & Technology (SDSM&T), were awarded \$25,000 to fund their project, "INSPIRE: Integration of NASA Space Projects Into RIAS Education."

Kurt W. Katzenstein, an Assis-

tant Professor of Geological Engineering at SDSM&T was awarded \$10,080 to fund his project, "Establishment of C-Band and L-Band InSAR Processing Capabilities at the South Dakota School of Mines and Technology."

## NASA: SOLAR Institute (Space, Observation, Learning, and Research) Project Awarded Funding

The Office of Educational Programs and Professional Conferences, South Dakota School of Mines and Technology, under the directorship of Nancy Anderson-Smith, has been selected to host a NASA pre-college experience entitled "NASA: SOLAR Institute (Space, Observation, Learning, and Research)" for up to 50 high school students in the summer of 2009.

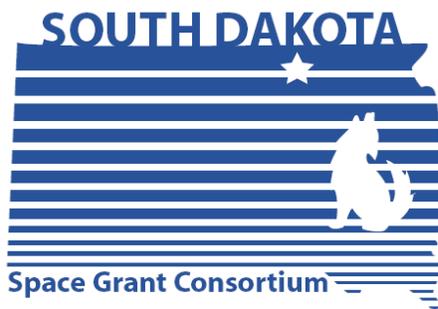
The SOLAR Institute program will serve as both science outreach and collegiate recruitment for students interested in the science, technology, engineering and math (STEM) areas.

Students will be selected through an application process to NASA. They will come from all over the U.S., which should provide for additional prospects to recruit

student to SDSM&T. This should also be a good pipeline for South Dakota Space Grant programs and internships as well.

The selected students will spend two weeks at the SDSM&T campus and will be emerged in daily presentations, lectures, labs and field excursions which focus on STEM related topics.

SDSM&T has a long and proud history of producing some of the world's finest scientists and engineers. The funding for the SOLAR Institute will provide another excellent opportunity for the SDSM&T to inspire students to pursue careers in Space Engineering & Sciences through NASA.



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The vision of the South Dakota Space Grant Consortium (SDSGC) is to expand opportunities for all South Dakotans through education, research, and public service in the fields of aerospace, earth, and space science. As the link between NASA and the citizens of South Dakota, SDSGC's mission is to instill the spirit of exploration and discovery in students and educators and in the general public, with a special focus on the fields of science, technology, engineering, and mathematics that are essential for the development of the nation's workforce.

The Affiliate



## Fellowship/Scholarship Stipend Awards

### Diversity in Fellowship/Scholarship Program

- 45% of funds awarded to women
- 11/45 awards to Native Americans
- Six students at a Tribal College

Sixty-one (61) applications were received from five of the Consortium's universities in competition for the \$135,000 in NASA funding available through the FY2008 Fellowship/Scholarship Stipend Program and \$24,000 in funding from SDSGC's ESMD Space Grant internship program. Forty-five (45) student awardees were selected and offered a total of \$159,000 in stipend funding.

The Consortium exceeded its targeted goal of 10% of its awards to minorities in both number of awards and amount of funding. Of the 45 students funded through the SDSGC Fellowship/Scholarship program in FY2008 with regular Space Grant funds, 11 (24%) were minority students (Native American). Six of the eleven Native American students attend Tribal College affiliate Oglala Lakota College (a minority-serving institution).

Forty-five percent (45%) of the total "amount" of stipend funding was awarded to female students. This exceeds the targeted goal of 40% of the amount of funding to female students.

Six students have been offered FY2008 Space Grant funds for NASA internships pending their acceptance by NASA. Four of the six students requesting an internship with NASA are still pending acceptance by NASA. The remaining two internships with NASA did not materialize.