

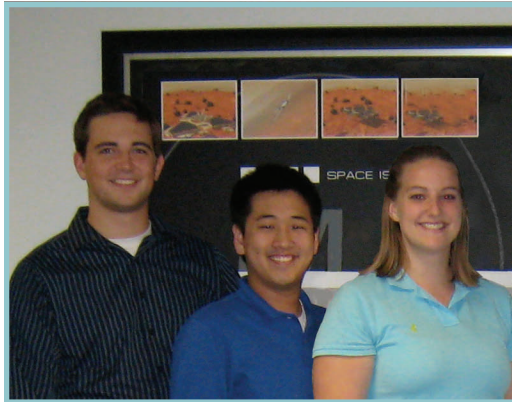
# a brief moment in space



## GSGC Corporate Member Recent Activities: SpaceWorks Engineering, Inc. (SEI)

### Summer Internships

Over the summer of 2008, SEI hosted three student interns from the College of Engineering at Georgia Tech. The students participated in a 10-week internship where they supported members of SEI's technical staff on a variety of space design, software development, and market analysis projects. Each intern was assigned a mentor at SEI who directed their activities and were kept apprised of the progress on their individual tasks. Working in the Advanced Concepts Group (ACG) at SEI was Scott Martinelli (on left in photo). His main activities consisted of developing post-processing software for use with a Computational Fluid Dynamics (CFD) code and the verification of various mass estimating relationships (MERs) used for space vehicle weight estimation. Scott will be returning to Georgia Tech in the Fall to begin work on his Master's Degree in Aerospace Engineering in the Space Systems Design Lab. Scott was mentored by SEI's Dr. Brad St. Germain.



Working in the Engineering Economics Group (EEG) at SEI was Chris Cho (center in photo). His primary work consisted of helping evaluate industry-standard life cycle cost (LCC) programs like SAIC's NAFCOM and Galorath's SEER tools. Additionally, Chris worked on developing required operations and maintenance activities for ground processing of next-generation reusable launch vehicles (RLVs). Chris will be returning to Georgia Tech as a fifth-year senior this Fall to complete dual Bachelor's Degrees in Aerospace Engineering and Management. Chris was mentored by SEI's Dominic DePasquale.

Supporting the SpaceWorks Commercial Division of SEI was Jennifer "JLL" Laperre (right in photo). While at SEI, JLL researched and modeled the emerging launch demands for small satellites (<500kg). Additionally, she performed mission feasibility studies for new sub-orbital/hypersonic launch vehicles designed for high speed, point-to-point fast-package delivery. JLL will be returning to Georgia Tech as a junior in Industrial and Systems Engineering this Fall. SEI's A.C. Charania served as JLL's mentor.

### AIAA Student Paper Competition Judging

The American Institute of Aeronautics and Astronautics (AIAA) held its annual Region II Student Conference in Cape Canaveral, Florida in March. The conference was attended by over 300 university students from 16 schools in the southeastern United States. As a corporate member of the Georgia Space Grant Consortium, SEI technical staff members were able to contribute a portion of their time to serve as judges for the annual technical paper competition held in conjunction with the conference. SEI's judges evaluated several papers authored by college freshmen through master's degree students on a wide range of topics, but primarily related to energy, space systems, and space exploration. Each paper was assessed based on four criteria: technical content, originality, practical application, and style and form. The overall competition was a success and several deserving authors were honored for their technical achievement.

## The Georgia Space Grant Consortium welcomes North Georgia College and State University

North Georgia College and State University is the newest affiliate member of the GSGC. Affiliate Director for NGSU is Dr. Mark Spraker of the Physics Department. Space Grant funds will go to a number of initiatives including the George E. Coleman, Sr. Planetarium, a 46-seat facility that provides public outreach and educational opportunities to the North Georgia region. The NGCSU OPEN program (Observatory-Planetarium Public Education Nights) has presented 47 public shows and 67 school shows to approximately 3900 visitors this year. Along with this, Space Grant funds will also support the continued study of Confocal X-ray Fluorescence and its potential use on Martian Landers under the direction Dr. Sarah Formica.

## *Spelman College to Offer Mentoring/Tutoring Program*

In partnership with the Georgia Tech Black Graduate Student Association, Spelman College will offer a tutoring and mentoring program for students in STEM disciplines.

In the tutoring program, free tutoring services will be offered to students in science and engineering on a one-to-one basis, in study groups, or in weekly drop-in tutoring sessions. Tutoring will be offered in first and second year gatekeeper courses, such as calculus, chemistry, physics, and biology. Upper-class and graduate students from Georgia Tech will be employed as tutors.

The mentoring component of the program will be a Spelman student with a Georgia Tech graduate student. Peer mentoring groups will be formed based on specific disciplines. A number of field trips and personal development activities will be coordinated throughout the year to build sisterhood among the participants. It is anticipated that both the Spelman and Georgia Tech students, will benefit from the experience and the net result will be an increase in retention of African American female students in STEM disciplines from first year through graduate school.

## National Space Grant Director's Meeting

The Georgia Space Grant Consortium is hosting the National Conference of Space Grant Directors, October 26 – 28, 2008 at the Hilton Garden Inn in downtown Atlanta, Georgia.

The theme of the conference is "Reflection – sending us in to the Next 20 Years." After an intense few months of all consortia preparing their 20 Year Reports, the conference is geared to inspire and uplift everyone.

Despite gas prices and federal cutbacks for travel budgets, the conference will be well attended. Former Space Grant Directors and NASA personnel once involved with the Space Grant Program have been invited, as well as former Space Grant Fellows and Academy alumni.

For additional information on the conference visit the Georgia Space Grant Consortium website at: <http://www.ae.gatech.edu/organizations/gsgc/>

