

Following Spiders into Space

Colorado native Kirstyn Johnson would love to be an astronaut. A junior in the Aerospace Engineering Sciences (AES) department at CU Boulder, Kirstyn has been gaining the experience she needs to leverage her dream by working at BioServe Space Technologies. She helped to develop hardware for STS-134, the second-to-last space shuttle to the International Space Station (ISS). The payload included spiders to see how they adapt to the ISS microgravity environment, focusing on the fabrication of their webs. Plant seeds also on STS-134 will be studied with planting and experiments starting in September when school children can be involved.

“The opportunities are amazing,” says Kirstyn, “and there are so many people willing to let you have these cool experiences. I’ve participated in Mission Operations in BioServe, and at Space Grant, I was project manager on RocketSat. Our team worked together for a year, building an attitude determination system to characterize the rocket’s flight. We launched our payload this summer out of Wallops Flight Facility.”

Kirstyn was chosen by the AES department chair to represent AES at the Georgia Tech School of Aerospace Engineering symposium held in June, “**The Space Shuttle: An Engineering Milestone.**”

The symposium brought together high-ranking personnel from NASA, Lockheed Martin, and Boeing with students from across the nation to “hand off” space exploration to a new generation. Astronauts, program managers, chiefs and directors of various NASA and industry departments discussed with the young people the problems and triumphs encountered in their careers, emphasizing the need to really communicate, use checklists, and follow procedure.

“Meeting students from around the country was my favorite part,” says Kirstyn. “It was great to talk to them about their college careers, and where they want to go after graduation. Some of them are coming out for the Space Vision Conference that SEDS [the Students for the Exploration and Development of Space] will host in October. Boulder got picked for 2011.”

Kirstyn describes other students in AES as “awesome” and says that the program takes a lot of hard work, “but this results in a tight group of aero kids that make it through together. It builds a lot of camaraderie.”

Kirstyn’s future plans are to work for NASA on human space flight and physiology applications for interplanetary exploration. Her experiences in AES seem well positioned to get her there.