



## California Space Grant in the 15th District

Santa Clara University is the California Space Grant Affiliate in the 15th District. For the past several years we have provided hands-on projects to undergraduate and graduate students in the areas of Robotics and Small Spacecraft.

During the 2010 year, students at Santa Clara University (SCU) worked on a Space Grant funded project to develop an automated network of communication stations for monitoring NASA spacecraft. We have successfully developed and installed four of these stations across the U.S. (California, Missouri, Pennsylvania, and Hawaii).

The stations receive amateur radio beacon broadcasts made by a series of small spacecraft developed by NASA Ames Research Center and Marshall Space Flight Center. Broadcast information is then automatically sent to SCU via the internet, stored in a database, and analyzed for any possible problems. If problems exist, the satellite operations team is notified so that they may respond accordingly.

This project has contributed significantly to novel hands-on STEM opportunities for our students, to the nature of our educational and research infrastructure, and to our ability to collaborate with NASA Centers on real space missions.



In this photo SCU senior Laura Bica in the SCU mission control center, describing how SCU students provide mission operations services for NASA spacecraft. This presentation was made during an outreach event with a local Girl Scout group.