

Cornell University chosen to build Nanosat-4 Flight experiment

April 3 2007

The Cornell University student team and their CUSat nanosatellite design has won the University Nanosat Flight Competition Review (FCR). This win moves the Cornell team on to build the Nanosat-4 flight experiment for the Air Force/AIAA University Nanosatellite Program, a national student satellite design and fabrication competition.

"We're extremely grateful, and honored, to be awarded the opportunity to launch our spacecraft," said Cornell University Professor Mason Peck, the faculty advisor to the Cornell student team. "This project has brought in over 200 students during the past two years because the prospect of launching one's senior project into space inspires students like few other educational experiences can."

"Winning this launch is a fantastic opportunity for the whole CUSat team—the students, staff and faculty who have worked so hard for the past two years, and our partners in the aerospace industry. The students are thrilled. Their two years of disciplined, rigorous work and long hours have paid off in a big way. We found ourselves among some very talented teams, with outstanding work to show for their efforts. The experience of rigorous engineering and hard work, along with exposure to the subtleties of designing spacecraft, has shaped the future careers of many of its students."

Competition in FCR was strong between the eleven universities that participated in the Nanosat-4 Phase 1 design competition. In addition to Cornell University, student teams from New Mexico State University,

Santa Clara University, Texas A&M University, University of Central Florida, University of Cincinnati, University of Minnesota, University of Missouri, University of Texas at Austin, Utah State University, and Washington University in St. Louis all entered their own nanosatellite designs in the competition.

"The decision this year was extremely difficult – so many of the designs were really competitive," said AFOSR Program Manager Dr. Kent Miller. "Each year we've run the competition, we've seen the bar raised both in terms of the designs coming out of the schools and the depth and breadth of experience with space systems across the student teams."

Cornell now moves to the second phase of the program, consisting of accelerated integration with a separation system and environmental test of the protoflight Nanosat in the months following the FCR, and culminates in a potential launch opportunity and mission operations.

All university student teams participating in the FCR construct a protoflight Nanosat while participating in various design reviews and program-sponsored hands-on activities and workshops throughout the two-year period. Teams are evaluated based on several criteria, including student participation and educational impact, technical relevance and quality, maturity of the designs, and ability of the design to meet space-flight qualifications.

Judges for the competition consisted of a panel of space systems professionals drawn from organizations including Lockheed-Martin, Northrop-Grumman, the University of Colorado at Boulder, Massachusetts Institute of Technology, the National Science Foundation, Charles Stark Draper Laboratories, Orbital Sciences Corporation, AeroAstro Inc., Air Force Space & Missiles Center Space Development & Test Wing, and Jackson & Tull.

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