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NASA NEWS

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NASA Announces Results From Beam and Tether Challenges

NASA and the Spaceward Foundation announced the results of the 2005 Beam Power Challenge and Tether Challenge. Eleven teams competed in the two competitions over the weekend at NASA's Ames Research Center in Mountain View, Calif. Although no team claimed this year's prizes, historic firsts were achieved.

In the Beam Power Challenge, teams had to build robotic climbers that could scale a 200-foot cable powered only by the beam from an industrial searchlight. The team that lifted the most mass in a certain time would win the \$50,000 prize. Although no team made it to the top of the cable, Team SnowStar from the University of British Columbia achieved the first beam-powered climb of approximately 20 feet. The University of Saskatchewan Space Design Team had the farthest beam-powered climb, approximately 40 feet.

"What happened this weekend is akin to the Wright brothers' first powered flight," said Spaceward Foundation founder, Metzada Shelef. "We hope these short climbs will be the first in a series of much longer climbs toward future space elevator concepts. The ingredients are there to make some great future achievements." The Spaceward Foundation is NASA's partner in this Challenge program.

In the Tether Challenge, teams had to create high-strength, low-weight tethers, which were stretched to their limits in a head-to-head, single-elimination competition. The Centaurus Aerospace Team produced the strongest tether. But to claim the \$50,000 prize, the strongest team tether had to beat the house tether, constructed from the best commercially-available material, by a margin of 50 percent. Centaurus fell just short.

"The diversity of the teams, representing small businesses, university students, and enthusiastic hobbyists, and the range of their technical solutions, exceeded my expectations" said NASA's Centennial Challenges program manager, Brant Sponberg. "This is especially impressive when you realize the teams had only six months to prepare. Even if a space elevator is never built, these are fundamental technologies with important applications both within and outside space exploration."

The prizes for next year's Beam Power Challenge and Tether Challenge will be \$200,000 each, including the unclaimed \$50,000 purses from this year. The competitions will increase in difficulty, as the teams will have to provide their own power beam, and the house tether will probably increase in strength.

NASA's Centennial Challenges program promotes technical innovation through a novel program of prize competitions. It is designed to tap the nation's ingenuity to make revolutionary advances to support the Vision for Space Exploration and NASA goals.

The Centennial Challenges program is managed by NASA's Exploration Systems Mission Directorate. The Spaceward Foundation is a public-funded, non-profit organization dedicated to furthering the cause of space access in educational curriculums and in the public mindshare.

For information about the Centennial Challenges program on the Web, visit:

<http://centennialchallenges.nasa.gov>

or

<http://www.spaceward.org>

For information about NASA and agency programs on the Web, visit:

<http://www.nasa.gov/home>

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