Students Design Futuristic Flying Rescue Vehicles For NASA Contest

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(PhysOrg.com) -- A rotorcraft that resembles a catamaran has taken the top prize in a NASA aeronautics competition for college students to develop a multi-purpose aircraft.

The entry by ten students at Virginia Tech in Blacksburg, Va., met the competition's challenge to design a civilian aircraft that could rescue up to 50 survivors in the event of a natural disaster, hover to help rescue missions, land on ground or water, travel 920 miles and cruise at speeds up to 345 miles an hour. The amphibious tilt-rotor vehicle also had to be able to fight fires by siphoning water into an internal tank, then dumping it after airborne.

NASA's Aeronautics Mission Directorate in Washington sponsored the competition through the Subsonic Rotary Wing Project in its Fundamental Aeronautics Program.

More than 100 college students from the United States, India, the United Kingdom, Canada, Poland, China and Nigeria entered the contest in teams or as individuals.

Susan Gorton, principal investigator of the Subsonic Rotary Wing Project, led the review panel. "The designs were creative, innovative and looked at many issues in detail," she said. "Reading the student papers highlighted how many bright young engineers are interested in the future of rotary wing vehicles. I certainly hope some of them decide to work with NASA as a career choice."

Ten Virginia Tech undergraduates came up with the winning design-- a twin-hulled vehicle with a large prop-rotor flanking each hull. A team of 10 graduate students from Georgia Tech in Atlanta and the University of Liverpool in England took second place, and 28 undergraduates from the University of Virginia in Charlottesville placed third.

NASA sponsored the design contest to interest students in aeronautics and engineering careers. Each winning U.S. team received a cash award and an engraved trophy through a NASA education grant and cooperative agreement. Cash awards ranged from $5,000 for first place to $3,000 for third place. Five of the students from the top U.S. teams also won paid summer internships at NASA.

To read more about the competition and see some of the rotorcraft designs, visit: www.aeronautics.nasa.gov/compe … ners2010_college.htm

Provided by JPL/NASA