

## Supporting FAA Design Competition

By Chris Babb, CVG Office

Since 2007, the FAA has sponsored a national Design Competition for Universities managed through the Virginia Space Grant Consortium. The Competition challenges individual students or teams of students (undergraduates and graduates) from U.S. colleges and universities, working under the mentorship of a faculty advisor, to address challenges in four broad areas: Airport Operations and Maintenance, Runway Safety/Runway Incursions, Environmental Interactions of Airports, and Airport Management and Planning.



The Competition requires students to reach out to airport operators and industry experts to advise them in their proposals and to help them assess the effectiveness of their proposed designs/solutions. It provides a framework and incentives for quality educational experiences for college students and raises student awareness of airports as a vital and interesting area for engineering and technology careers. Cash prizes are given to first, second and third place winners in each category. The first place winners present their design solutions at a national aviation event such as the AAEE annual meeting. Promising designs may receive FAA funding to take their concepts to the next stage of development.

L&B has volunteered to assist the FAA with this important program and I am proud to have been asked to represent the firm. In this role, I have served as an expert advisor to students, a reviewer of the design packages, and panelist along with FAA, industry, and academic experts in selecting the winning proposals for the Environmental Interactions specialty.

The 2010 winners included:

### **Binghamton University - State University of New York**

"Utilizing Wind Energy to Provide Runway Lighting at Remote Airports," This proposal adapted existing technology in new and practical ways at airports.

### **Kent State University**

"Lighting Airfields through Harvested Kinetic Energy from Vehicular Traffic." This proposal attempted to harness energy wasted by vehicles.

Another notable design included one from **Roger Williams University**, which suggested "An Innovative Approach using Chitin Filtration." This proposal would use exoskeletons of shellfish as a low cost way to recycle glycol. Yum!

Competition guidelines and full details are available at:  
<http://FAADesignCompetition.odu.edu>