

## **Boeing Donates Lightning-Effects Technology to Villanova University**

---

### **Boeing Donates Lightning-Effects Technology to Villanova University**

A software program designed to predict the indirect effects of lightning strikes on composite aircraft structures soon will spark interest among Villanova University students, thanks to an intellectual property donation by The Boeing Company [NYSE: BA].

The software, known as "Blitzen," can accurately model the effects of lightning strikes on the electrical wiring and electronic components of composite aircraft. The application has been validated through instrumented lightning testing and will be further developed by students at Villanova University's Antenna Research Laboratory.

In addition to the software, Villanova University will receive the test data, a draft version of a user's manual and 80 hours of technical assistance. Their goal is to write a detailed manual, extend the software's intended frequencies, publish papers describing theories and operations, and develop plans for future commercialization of the project.

"Blitzen has demonstrated operational performance on military and civilian projects throughout the world," said Gene Partlow, vice president, Boeing Intellectual Property Business. "Villanova University has proven research and development expertise that will enable them to realize the software's full capabilities. We're proud to support the education of Villanova's future technology leaders."

Boeing's Intellectual Property Business considers donations of technology to non-profit organizations having complementary Research and Development programs. As with Blitzen -- developed by Boeing Philadelphia's Dr. Jack Nachamkin to better understand and minimize the effects of lightning strikes on aircraft -- donations typically are promising, early-stage technologies not slated for further investment because they do not fit into Boeing's core business strategy. Their values vary and are not disclosed.

"The College of Engineering is extremely pleased that The Boeing Company has donated this gift of intellectual property to the College's Center for Advanced Communication," said Dr. Barry C. Johnson, dean of Engineering at Villanova. "The software will enable our engineering students to perform cutting-edge research that has real-world applications to technologies being developed today and in the future."

Congressman Curt Weldon (R-Pa.), a longtime supporter of teaming industry with academia, has visions of creating a state-of-the-art International Center for Rotorcraft Innovation in Pennsylvania's Delaware County that will take advantage of the area's many aeronautic research centers, Rotorcraft manufacturing facilities and educational institutions.

"Thanks to Boeing's generous gift, Villanova's future engineers and business leaders will have a special edge over their competition due to their hands-on experience with this valuable tool," he said. "I'm glad to see that Boeing is continuing its long-standing tradition of being a good neighbor and committing resources to Villanova University, one of our key regional assets."

Roger Krone, senior vice president, Boeing Army Systems, which is headquartered in Newtown Square, Pa., said: "Boeing has worked closely with businesses and universities in the region for many years. We're committed to maintaining these mutually beneficial relationships, as demonstrated by this intellectual property donation and others we've made over the years."

In addition to donations of intellectual property and equipment, The Boeing Company makes more than \$8 million in charitable investments each year to help develop intellectual talent and promote academic achievement at colleges and universities with demonstrated records of academic excellence, programs fostering critical skills and opportunities for diverse populations. In 2002, Boeing contributed nearly \$500,000 to Pennsylvania colleges and universities.

The Boeing Company is the world's leading aerospace company, with its heritage mirroring the history of flight. It is the largest manufacturer of satellites, commercial jet liners and military aircraft. The company is also a global market leader in missile defense, human space flight and launch services. Chicago-based Boeing has an extensive global reach with customers in 145 countries.

###

For further information:

Glen Golightly

Phantom Works

714-372-4742 office

[robert.g.golightly@boeing.com](mailto:robert.g.golightly@boeing.com)

Doug Holmes

Army Systems  
610-591-4901 office  
[william.d.holmes@boeing.com](mailto:william.d.holmes@boeing.com)

---