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ALBUQUERQUE, N.M., July 16, 2010 -- Boeing [NYSE: BA] today announced the successful projection of a photoelectron beam from a superconducting injector being developed by Boeing and Niowave Inc. as part of a research-and-development effort related to Boeing's Free Electron Laser (FEL) program for the U.S. Navy.

The injector, which is being developed at Niowave's Michigan facility, is the first to be built and tested by the Department of Defense and defense contractors. Boeing and Niowave's collaboration also includes the Office of Naval Research and the Naval Postgraduate School.

"Boeing provided the drive laser system that releases electrons at precisely the right instant to match the timing of the superconducting cavity," said Mike Rinn, vice president of Boeing Directed Energy Systems. "This is the sort of technical expertise and ability to partner with government labs that is the hallmark of Boeing's work in the directed-energy community."

Development of the superconducting injector will continue at Niowave, with plans to move the accelerator to the Naval Postgraduate School in Monterey, Calif., where it will be used in a program that includes education of defense personnel in this advanced technology. Superconducting accelerator technology has a broad range of applications, such as cancer therapy, medical radioisotope production, and detection of nuclear materials, as well as in weapon systems such as FEL.

Niowave is a high-tech research, development and manufacturing firm specializing in superconducting particle accelerators. Founded in 2005, Niowave's state-of-the-art facilities in Lansing, Mich., produce accelerators for the military, research labs, universities, and hospitals.

Boeing Directed Energy Systems, headquartered in Albuquerque, is developing advanced laser concepts and systems to address multiple defense requirements. Boeing is under contract to the Office of Naval Research to design, build and operate a 100-kilowatt FEL under the FEL-Innovative Naval Prototypes (INP) program. The Boeing team completed preliminary design work on FEL-INP in March. The company's other directed-energy efforts include the High Energy Laser Technology Demonstrator for the U.S. Army, and Laser Avenger, a company-funded program that integrates a laser on a mobile truck platform.

A unit of The Boeing Company, [Boeing Defense, Space & Security](#) is one of the world's largest defense, space and security businesses specializing in innovative and capabilities-driven customer solutions, and the world's largest and most versatile manufacturer of military aircraft. Headquartered in St. Louis, Boeing Defense, Space & Security is a \$34 billion business with 68,000 employees worldwide.

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