

## Boeing Receives Task Order for Design of Free Electron Laser Lab Demonstrator

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**ALBUQUERQUE, N.M., Sept. 13, 2010** -- The Boeing Company [NYSE: BA] has received an additional task order of \$23 million to complete the design of the 100-kilowatt Free Electron Laser (FEL) lab demonstrator. The order is part of a U.S. Navy contract, valued at up to \$163 million, which is the result of a competitive downselect based on preliminary designs provided in March.

"The Free Electron Laser program will enable Navy ships to defend themselves against new threats with unprecedented speed, precision and power," said Greg Hyslop, vice president and general manager of Boeing Strategic Missile & Defense Systems. "It will transform naval warfare in the next decade by providing an ultra-precise, speed-of-light capability and unlimited magazine depth."

This critical design review phase will be completed in the fourth quarter of 2011. It will be followed by additional task orders for fabrication and testing in a laboratory environment.

FEL is designed to operate by passing a beam of high-energy electrons through a series of powerful magnetic fields, generating an intense emission of laser light.

"Two unique attributes of FELs are the ability to tune the wavelength to maximize transmission of the laser through the marine atmosphere, and the ability to aim for a single small spot on the target," said Ed Pogue, FEL program manager for Boeing. "The combination of these two effects allows the system to destroy the target in the minimum time."

Boeing is partnering on FEL with U.S. Department of Energy laboratories, academia and industry. The laboratories include the Thomas Jefferson National Accelerator Facility in Newport News, Va., the Los Alamos National Laboratory in Los Alamos, N.M., and the Argonne National Laboratory in Chicago. Major industrial partners include Advanced Energy Systems, Niowave Inc. and SAIC.

Boeing has selected an existing accelerator facility at Los Alamos National Laboratory for the assembly and testing of the FEL lab demonstrator. The use of existing infrastructure reduces overall program costs and provides the best value to the Navy.

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