## **Boeing Awarded US Navy Contract to Develop Free Electron Laser**

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**WEST HILLS, Calif., April 15, 2009** -- The Boeing Company [NYSE: BA] has been awarded a U.S. Navy contract valued at up to \$163 million, with an initial task order of \$6.9 million, to develop the Free Electron Laser (FEL) weapon system, which will transform naval warfare in the next decade by providing an ultra-precise, speed-of-light capability and unlimited magazine depth to defend ships against new, challenging threats, such as hypervelocity cruise missiles.

Under the task order, awarded April 13 by the Office of Naval Research, Boeing will complete the preliminary design of the electric-powered Free Electron Laser, the key step toward building a FEL prototype for realistic tests at sea. Boeing will partner with U.S. Department of Energy laboratories, academia and industry partners to design the laser.

"This contract award is significant because it will be a cornerstone of the Navy's plan to incorporate directed energy systems into its future all-electric ship architecture," said Greg Hyslop, vice president and general manager of Boeing Missile Defense Systems. "This is an important win for Boeing and further expands our efforts to bring transformational directed-energy applications to the warfighter."

FELs are capable of achieving the megawatt power the Navy requires for ship defense. They operate by passing a beam of high-energy electrons through a series of powerful magnetic fields, causing the intense emission of laser light.

"Boeing has researched free-electron lasers since the early 1980s, and we believe this technology is now ready to move from the laboratory to a prototype suitable for testing," said Ed Pogue, Boeing FEL program manager. "The Free Electron Laser program will enable U.S. Navy ships to deliver nonlethal or lethal effects on a target with unprecedented speed, precision and power and minimal collateral damage."

"We will bring the best of Boeing to bear on this challenge by combining personnel from Boeing Research & Technology and Boeing Directed Energy Systems to form a single team," said Matthew Ganz, vice president and general manager of Boeing Research & Technology.

Boeing leads the way in developing high-energy laser systems for a variety of warfighter applications. These systems include the Airborne Laser, the Advanced Tactical Laser, the High Energy Laser Technology Demonstrator, Laser Avenger, the Re-deployable High Energy Laser System and the Tactical Relay Mirror System. Boeing's FEL team will draw on its global systems engineering experience and success.

A unit of The Boeing Company, Boeing <u>Integrated Defense Systems</u> is one of the world's largest space and defense 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 Integrated Defense Systems is a \$32 billion business with 70,000 employees worldwide.

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