## **Boeing Receives Phase II Contract for High Power Adaptive Optic System**

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Company to continue development of directed energy capability for tactical applications

**ALBUQUERQUE, N.M., Nov. 15, 2011** -- Boeing [NYSE: BA] has received a contract from the U.S. Department of Defense's High Energy Laser – Joint Technology Office (HEL-JTO) to continue development of a prototype High Power Adaptive Optic system. The objective of this follow-on, 15-month contract is to apply adaptive optic technology to high energy laser tactical systems. The value of this contract is not being disclosed.

Traditional "adaptive optics" were originally developed for use in astronomers' telescopes to correct for the blurry image that occurs when wind or other turbulence distorts wavelengths of light from a star or other astronomical object. Similarly, the objective of the High Power Adaptive Optic system is to minimize atmospheric distortion in order to increase the amount of energy -- in this case laser energy -- applied to a target.

"By minimizing the distortion of a laser beam -- much like telescopes can take the 'twinkle' out of the stars -- we can increase the amount of energy on a specific target. This very small, lightweight Adaptive Optic system will enhance both the range and the power of tactical laser weapons," said Mike Rinn, Boeing Directed Energy Systems vice president and program director. "With this project, Boeing and our project partner, SAIC, have the unique opportunity to work with JTO to enhance the performance of a variety of high energy laser systems. Our team of experts is ready to demonstrate this advanced capability in the field."

Boeing and SAIC recently completed the first phase of system development, which involved designing, building and testing the system in a laboratory environment. Under this new contract, the team will test the system with the High Energy Laser Technology Demonstrator (HEL TD), a cornerstone high-energy laser program for the U.S. Army.

In order to apply adaptive optics technology to the tactical environment, the High Power Adaptive Optic system will employ ultra-high speed, state-of-the-art processing and sensor technologies. The system features a beacon illuminator and deformable mirror to deliver the required high-rate atmospheric correction and high energy laser capability.

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Contact:

Elizabeth Merida Strategic Missile & Defense Systems

Office: 703-872-4245 Mobile: 703-209-4022

elizabeth.a.merida@boeing.com