

## Boeing to Design XS-1 Experimental Spaceplane

### DARPA program seeks to lower satellite launch costs

**HUNTINGTON BEACH, Calif., July 15, 2014**— Boeing [NYSE: BA] plans to design a reusable launch vehicle for the Defense Advanced Research Projects Agency (DARPA) in support of the U.S. government's efforts to reduce satellite launch costs.

DARPA's XS-1 Experimental Spaceplane is conceived as a reusable, unmanned booster with costs, operation and reliability similar to modern aircraft.

"Developing a vehicle that launches small payloads more affordably is a priority for future U.S. Defense Department operations," said Steve Johnston, director of Boeing's Phantom Works Advanced Space Exploration division. "Boeing brings a combination of proven experience in developing launch systems and reusable space vehicles, along with unparalleled expertise in the development and fielding of highly operable and cost-effective transportation systems."

Under the \$4 million preliminary design contract, Boeing plans to work on a reusable first stage launch vehicle capable of carrying and deploying an upper stage to launch small satellite payloads of 3,000 to 5,000 pounds (1,361 kg to 2,268 kg) into low-Earth orbit.

"Our design would allow the autonomous booster to carry the second stage and payload to high altitude and deploy them into space. The booster would then return to Earth, where it could be quickly prepared for the next flight by applying operation and maintenance principles similar to modern aircraft," said Will Hampton, Boeing XS-1 program manager. "Drawing on our other innovative technologies, Boeing intends to provide a concept that uses efficient, streamlined ground infrastructure and improves the turnaround time to relaunch this spacecraft for subsequent missions."

DARPA plans to hold a Phase II competition next year for the follow-on production order to build the vehicle and conduct demonstration flights.

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