

DARPA's XS-1 Spaceplane Program Aims to Help Address National Security Risk

Jane Edwards October 26, 2017 Latest News, Tech & Cyber 188 Views



The Defense Advanced Research Projects Agency's move to launch the *XS-1* spaceplane program stemmed from the need to address a national security risk posed by long lead times on space launches and challenges to launching satellites into space in a cost-effective manner, [Space.com](#) reported Wednesday.

“If it takes me 20 years to build a constellation of geosatellites to do, [for example], ballistic missile early warning, and it costs 20 billion dollars, that’s a problem,” Fred Kennedy, director of DARPA’s tactical technology office, said Oct. 12 at the International Symposium for Personal and Commercial Spaceflight in New Mexico.

“Because someone else might figure out how to put up similar capabilities or develop countermeasures in that period,” he said of the country’s potential adversaries.

DARPA teamed up with **Boeing** in May to build an unmanned reusable spaceplane – *Phantom Express* – that will work to deploy an expendable upper stage to launch a 3,000-pound satellite into orbit.

The agency expects XS-1 to have its initial flight tests by 2020 and to have a demonstration vehicle ready as early as 2019 with a goal to reduce launch costs to less than \$5 million per take-off.

The spaceplane will run on an **Aerojet Rocketdyne**-built *AR-22* engine and will work to perform up to 10 space missions in 10 days, the report added.