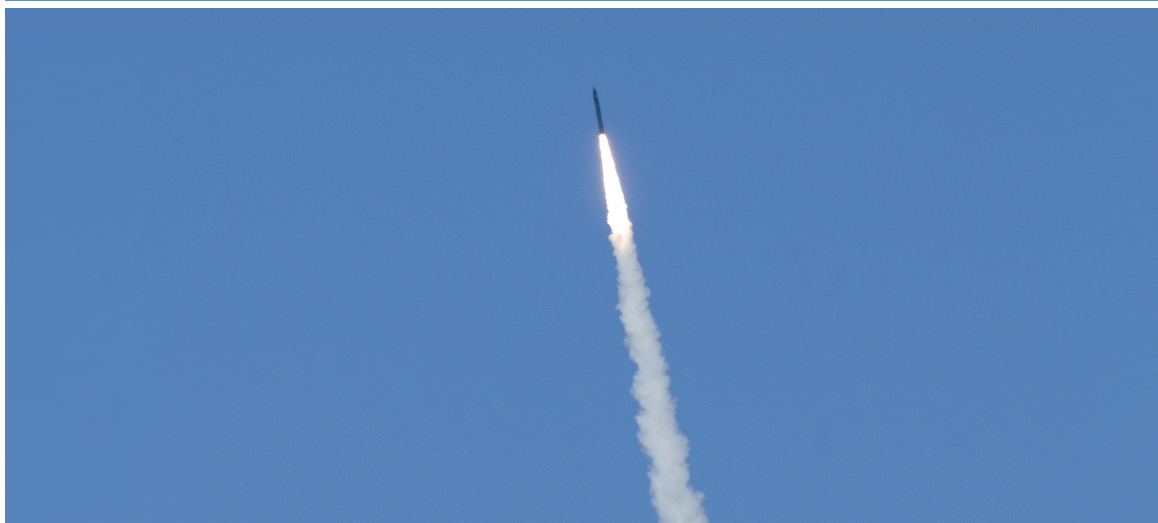


GMD Boost Vehicle

Ground-based Midcourse Defense Boost Vehicle

FACT SHEET



The Raytheon-developed EKV is integrated with Orbital ATK's GMD Boost Vehicle.



Overview

Orbital ATK was selected by The Boeing Company in December 2001 to design, develop, and test a boost vehicle for the U.S. Missile Defense Agency's (MDA) Ground-based Midcourse Defense (GMD) program. The GMD System is the first and only operationally deployed missile defense program to defend the homeland against long-range ballistic missile attacks. The system provides early detection and tracking during the boost phase, midcourse target discrimination, precision intercept and destruction of inbound ICBMs through force of hit-to-kill technology.

GMD has been in advanced development since 1998 and is based on technologies pioneered by MDA in the 1980's and 1990's. It is currently a research and development program incorporating extensive ground and flight tests to verify system performance against long range ballistic missile targets. Boeing, as the prime contractor, is responsible for the development, test, and integration of all the GMD elements, including the Ground Based Interceptor (GBI), Ground Systems, and interfaces with other elements of the Ballistic Missile Defense System.

The GMD System is designed to intercept and destroy hostile ballistic missiles during their midcourse phase of flight, before their reentry into the Earth's atmosphere. The GMD Exoatmospheric Kill Vehicle (EKV) employs "hit-to-kill" technology to detect, discriminate, and destroy an incoming missile's warhead using only force of impact or kinetic energy. The Orbital Boost Vehicle (OBV) is designed to deliver the EKV to the precise exoatmospheric endgame conditions necessary to intercept the threat. Together, the OBV and EKV form the GBI, which is integrated by Boeing.

FACTS AT A GLANCE

The Orbital ATK Boost Vehicle (OBV) is a two or three-stage solid motor rocket booster system developed for the GBI. Orbital ATK's boost vehicle has been successful in all thirteen flight tests conducted between February 2003 to June 2014.

The baseline OBV design is derived from Orbital ATK's highly successful lineage of small satellite launch vehicles – Pegasus® and Minotaur. The DSC upgrade will provide next-generation avionics to support additional tactical missile production and sustainment of the system throughout the coming decades.

- 30+ years of boost vehicle experience
- 24/7/365 operational capability
- State-of-the-Art high-reliability missile avionics
- Fully ISO-9001 and AS9100 compliant production processes

GMD Boost Vehicle

GMD Program Overview

Under the initial Orbital Boost Vehicle (OBV) contract, Orbital ATK modified Pegasus, Taurus, and Minotaur system designs to develop the OBV, and verified its performance and operational features through a series of test flights that began in early 2003. In early 2012, Orbital ATK was awarded major subcontracts from Boeing and Northrop Grumman Corporation under the GMD Development and Sustainment Contract (DSC), which will extend Orbital ATK's involvement in the GMD program through 2018. Under DSC, Orbital ATK will develop significant tactical avionics upgrades for the OBV, deliver additional tactical boosters for upgraded GBIs, and provide Operations and Sustainment support for the fleet of 30 operational interceptors at Fort Greely, Alaska and Vandenberg Air Force Base, California.

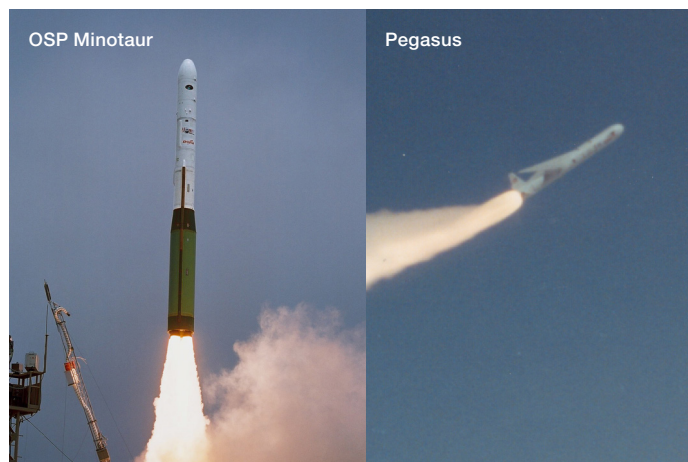
Orbital ATK has completed development of a two-stage variant of the baseline three-stage OBV which provides GMD with a capability to engage a broader range of threats. The two-stage OBV was successfully verified in a flight test in 2010. In all, there have been thirteen successful flight tests of the two- and three-stage OBV configurations through 2014 which demonstrate both the performance of the OBV as well as the ability of GMD system elements to work together as an integrated system.

More Information

Business Development

(480) 814-6028

Orbital ATK's Flight-Proven Heritage



Orbital ATK's GMD Boost Vehicle is derived from the company's flight proven small space launch vehicles.

GMD Boost Vehicle Flight Test – Thirteen Launches, Thirteen Successes

