

Massive Ordnance Penetrator (MOP)

Executive Summary

- DOT&E published a classified Massive Ordnance Penetrator (MOP) Early Fielding report in April 2012 that summarized testing during FY08 through FY11, including five B-2 Quick Reaction Capability flight tests.
- The Air Force executed two MOP sled tests at the Holloman AFB High-Speed Test Track during June and August 2012 to confirm the successful re-design of certain aspects of the weapon system.
- The Air Force, between June and October 2012, successfully completed five additional weapon drops from the B-2 aircraft on threat-representative targets. The tests, conducted at the White Sands Missile Range, New Mexico, further defined weapon behavior against the target sets.



System

- The MOP, GBU-57A/B, is a large penetrating weapon with the ability to attack deeply buried and hardened bunkers and tunnels. The warhead case is made from a special high performance steel alloy and its design allows for a large explosive payload while maintaining the integrity of the penetrator case during impact.
- The B-2 Spirit is the only aircraft in the Air Force programmed to employ the MOP.
- The MOP is a GPS-guided weapon designed to reach and destroy targets located in well protected facilities. The MOP is more powerful than its predecessors, the BLU-109 and GBU-28.

Mission

Combatant Commanders use MOP to conduct pre-planned, day or night attacks against defended point targets vulnerable to blast and fragmentation effects and requiring significant penetration, such as hardened and deeply-buried facilities.

Major Contractor

The Boeing Company, Defense, Space & Security – St. Louis, Missouri

Activity

- The Air Force, using the Holloman AFB High Speed Test Track in New Mexico, conducted two sled tests during the June to August 2012 period, to confirm the successful re-design of a critical part of the weapon system.
- The Air Force executed five weapon drops at White Sands Missile Range, New Mexico, between June and October 2012, on threat-representative targets to further evaluate weapon system performance and to provide additional confirmation of the weapon re-design. During the tests, a B-2 conducted five drops: three with live warheads, and two with inert warheads. Telemetry data and visual observations indicate that all five weapon drops effectively prosecuted the targets.

Assessment

- In the April 2012 Early Fielding report, DOT&E concluded that the MOP is capable of effectively prosecuting selected hardened, deeply buried targets. All recommendations in the Early Fielding report have been addressed by the Air Force.
- The sled test results and the additional weapon drops indicate that the weapon re-design is adequate for the successful prosecution of all of the elements of the currently defined target set.

Recommendations

- Status of Previous Recommendations. This is the first annual report for this program.
- FY12 Recommendations. None.

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