

Line-of-Sight Anti-Tank Missile (LOSAT)

SUMMARY

- The Army realigned the Line-of-Sight Antitank System (LOSAT) program in early FY04, fielding only one of the five originally-planned battalions.
- The strategy fields the one battalion via a series of low-rate initial production (LRIP) decisions.
- The revised strategy still maintains that the Army has a requirement for five battalions, pending the availability of additional funding.
- The Army determined that LOSAT was ready for the Milestone C LRIP decision based on developmental testing and a Limited User Test (LUT) in 3QFY04.
- The Army conducted the Milestone C review in July 2004, but the FY05 Defense Appropriations Act eliminated funding for the program.



LOSAT is an antitank weapon system that fires a 177-pound penetrator rod munition.

SYSTEM DESCRIPTION AND MISSION

LOSAT is an antitank weapon system that fires a 177-pound penetrator rod munition. It is the first of the Army's Kinetic Energy Missile programs. The Army intends LOSAT to provide anti-armor capability for light, airborne, and air assault forces. The Army requires LOSAT to defeat any known or projected armor system at ranges out to approximately 5000 meters. A five-man squad operates the LOSAT system. The Fire Unit, mounted on a High Mobility Multi-Purpose Wheeled Vehicle (HMMWV) chassis, carries four missiles. The fire control system is similar to the Improved Bradley Acquisition System and features a second-generation Forward-Looking Infrared sensor. A second HMMWV tows a resupply trailer that carries eight additional missiles. The system is deployable by strategic and tactical airlift (e.g., C-5, C-17, and C-130).

TEST AND EVALUATION ACTIVITY



During 2004, the Army completed production qualification testing of the missile, Fire Unit, and Resupply Trailer. The Army also conducted a LUT at Fort Bliss, Texas, in April through May 2004. The LUT was adequate to examine selected aspects of the LOSAT operational effectiveness, operational suitability, and survivability. The LUT provided sufficient information to support the Army's Milestone C LRIP decision in July 2004.

The program completed a 23-missile flight developmental test program in 2004. This program supported lethality Live Fire Test and Evaluation (LFT&E), including assessing the probability of hitting the target. Vulnerability LFT&E began

ARMY PROGRAMS

in late FY03. If the Army were to revive the program for FY05, testing should be complete by early FY06 to support an independent assessment of LOSAT lethality and vulnerability.

The Army conducted a Dismounted Battlespace Battle Lab Deployability Demonstration at Fort Bragg, examining tactical deployability. Specifically, the demonstration examined whether helicopters could lift and transport the system. Prior to program termination, the Army planned to conduct an initial operational test and evaluation in 4QFY06.

TEST AND EVALUATION ASSESSMENT

Developmental testing and the LUT demonstrated that LOSAT has devastating effects against bunkers, reinforced urban structures, and armored vehicles at short and medium ranges. However, LOSAT has not yet met probability of kill rates required by the Operational Requirements Document against threat-representative targets at ranges beyond the capability of anti-armor missiles in the current inventory. Additional testing is also required to demonstrate that LOSAT can hit moving targets that employ evasive maneuvers and countermeasures. The Army has demonstrated LOSAT's helicopter transportability, but major system reconfiguration is currently required to sling-load the system. Further testing in realistic conditions is required to prove interoperability, effectiveness in extreme environments and complex battlefield conditions, and military utility as part of a combined arms team.

In testing to date, the reliability of the missile and the Resupply Vehicle appear to be satisfactory. The reliability of the LOSAT Fire Unit and the Field Tactical Trainer is a concern, particularly in extremely hot weather. The performance of the Field Tactical Trainer is critical since crews will not have the opportunity to fire live missiles during proficiency training. The Army has not formalized or tested LOSAT system logistics and maintenance concepts.

The Army has tested some elements of system survivability, to include the capability of the crew to operate in chemical protective clothing. Additionally, LOSAT's firing signature is comparable to the signature of the current TOW missile. However, the optics are susceptible to small arms fire and fragments from indirect fire. The Army suspended system-level testing of survivability pending future funding.

The Army has not updated the Test and Evaluation Master Plan since June 2003.