

Stinger Proximity Fuze

Executive Summary

- The Army added a proximity fuze (PROX) to the Stinger Block 1 missile to increase Stinger lethality against small and medium unmanned aircraft systems (UAS).
- The Army authorized fielding initial Stinger PROX missiles in support of the European Defense Initiative in FY19, with planned Full Material Release in FY22.
- During flight testing, the Army measured the PROX firing distance against static targets.

System

- First fielded in 1981, the FIM-92 Stinger is a shoulder-launched, fire-and-forget, short-range, man-portable, air defense weapon system. It provides low-altitude defense for ground forces against low-flying cruise missiles, fixed- or rotary-wing aircraft, and UAS attack or reconnaissance threats. The Stinger utilizes a high-explosive, hit-to-kill warhead. While typically fired by a two-man crew, the Stinger can also be operated by one person and adapted to fit on ground vehicles, helicopters, and UAS platforms.
- The Army initiated a Service Life Extension Program to extend the shelf life of expiring Stinger missiles by replacing missile components susceptible to degradation due to aging.
- The Army also initiated a PROX effort to improve effectiveness against UASs. The PROX effort integrates a Target Detection Device into the fuze to provide a proximity detonation capability. The Stinger PROX will upgrade the FIM-92E Stinger Block 1 and will result in the FIM-92J Stinger PROX missile.



- The Army utilized its urgent materiel release process to provide Stinger PROX missiles in support of the European Defense Initiative in FY19, and plans on full materiel release in FY22.

Mission

Army and Marine Corps commanders employ the Stinger missile system to defend ground forces and critical assets against low-level cruise missile, fixed- or rotary-wing aircraft, and UAS attack or observation.

Major Contractors

- Raytheon Missile Systems – Tucson, Arizona
- Lockheed Martin Sippican – Marion, Massachusetts

Activity

- In January 2019, the Army completed missile live fire flight testing against targets at Eglin AFB, Florida, conducting the final six flight tests against four static UAS targets and two static legacy fixed-wing surrogate targets. The Army measured the PROX firing distance against the static targets.
- The Army is using the results of this testing to support modeling Stinger PROX lethality across a range of engagement conditions, and expects Stinger PROX modeling to be complete by 4QFY20. The Army will accredit models used to support the evaluation of Stinger PROX lethality.

Assessment

DOT&E will report on Stinger PROX performance upon test completion of ongoing modeling and simulation efforts.

Recommendations

None.

FY19 ARMY PROGRAMS