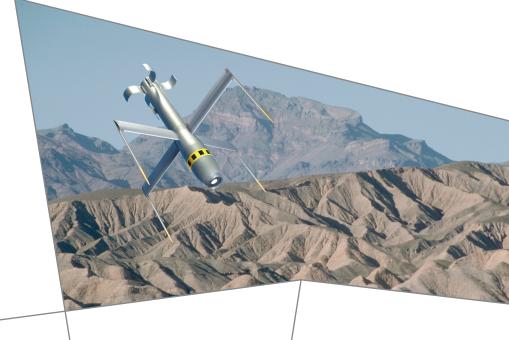
AIR

The new GBU-44/E Viper-E weapon is a 42lb air-launched guided munition capable of stand-off precision attack. Currently in production, Viper-E is a low-risk variant of the combat proven Viper Strike weapon that provides a turn-key precision weapon solution for fixed wing, helicopter and UAV platforms. Currently in use on US Marine Corps aircraft, the Viper-E weapon glides to the target, using GPS-aided navigation and a semi-active laser seeker to attack land and sea targets with combat-proven pinpoint accuracy. The new Viper-E is optimized for attack profiles that require either a steep or shallow final attack angle. This flexibility allows low-collateral damage affects in both mountainous terrain and urban canyons where strict rules of engagement are in force. Its relatively small warhead size and laser accuracy provide for low collateral damage in cluttered urban environments. Viper-E's new fast attack mode has proven successful against very high speed targets.

Viper-E's GPS Inertial Navigation System (INS) combined with Semi-Active laser (SAL) guidance provides positive control until impact. It allows the weapon to be launched covertly from safe altitudes and stand-off ranges outside of point defenses yet achieve pinpoint accuracy. GPS/INS navigation provides accurate mid-course guidance to the target area allowing for final SAL guidance. Using the new Viper-E Top Attack Mode, targets can be attacked directly underneath the launch aircraft

Viper-E's dual mode guidance and agility provide a high degree of operational flexibility. The weapon can be released in poor weather yet retain laser precision from man-in-the-loop targeting from a laser designation as the Viper-E approaches the target. Viper-E is compatible with any NATO standard laser designator, either from the air, from the sea or from forces on the ground.

VIPER-E[™] STAND-OFF PRECISION GUIDED MUNITION



- New Viper-E Fast Attack Mode is proven against very high speed targets
- Has been integrated on UAVs, fixed and rotary wing aircraft
- Dual Mode INS/SAL guidance
- Demonstrated for day and night operations
- Effective in urban canyons and mountainous terrain
- Precision target strike with low collateral damage
- Off-Axis Shallow/Steep/Indirect angles of attack
- Stand-off/Covert launch and attack
- Lightweight, compact, either internal or external carriage
- Proven Common Launch Tube and Bomb Bay deployment
- Turn-key weapon system



Viper-E allows aircraft, helicopters and UAVs to precisely engage targets in urban areas that would otherwise be denied due to the risk of collateral damage. For fixed wing aircraft and UAVs that operate at a high altitude, Viper-E converts that altitude advantage with an off-axis attack capability allowing the operators to covertly attack distant targets located off the host aircraft flight path. Viper-E can be programmed to turn and attack targets on the reverse slopes of mountains, the back sides of buildings or to accommodate a desired laser guided run-in line. This programming can be done very quickly prior to launch with the Battle Management System.

Viper-E is optimized to convert surveillance aircraft into multi-mission armed platforms with the simple integration of proven off the shelf components. Platforms can carry as little as one, or multiple, lightweight and aerodynamic Viper-Es on a single pylon or can be launched internally or externally from a Common Launch Tube. With no scheduled maintenance, a long on-wing time, proven high environmental tolerances and a storage life over 10 years, Viper-E is perfect for platforms and missions that desire a long-term, persistent deterrent option.

Name

Viper-E (GBU-44/E)

Missile characteristics

- Weight: 42 pounds
- Low collateral damage
- Length: 35 inchesDiameter: 5.5 inches
- Anti-armor capability

Tandem shaped charge warhead

- Wingspan: 36 inches
- High glide ratio

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