

# APKWS Advanced Precision Kill Weapon System WGU-59/B



## Advanced Precision Kill Weapon System

APKWS offers the U.S. Marine Corps, Navy, Army, Air Force, and special operations forces a new weapon capability for air, ground, and seaborne platforms that bridges the gap between unguided small-diameter rockets and larger-diameter anti-armor munitions. Following 10 years of development and testing with cooperation from the Army and Navy, BAE Systems offers a robust, reliable mid-body guidance and control system for existing and new inventories of 2.75-inch (70-millimeter) rocket motors, warheads, launchers, designators, and fire control systems.

The system's guidance and control section is inserted between the warhead and rocket motor using standard tools, allowing ordnance crews to quickly transform a previously unguided rocket into a precision munition in the field or at a depot. It requires no modifications to the rocket, firing platform, or fire control/launcher system. The unique mid-body configuration protects guidance components from environmental conditions, including debris and scorching from adjacent rocket firings.

APKWS offers a high degree of accuracy, enabled by its Distributed Aperture Semi-Active Laser Seeker, or DASALS™, which provides a 40-degree instantaneous field of regard to allow precision engagements against moving and stationary targets.

The system has been tested throughout the development program which began in 2002. Thirty-seven hits have been accumulated on stationary and moving targets at various ranges, altitudes, and temperatures. APKWS has been successfully launched from Marine Corps AH-1W Cobra and Army OH-58D(I) Kiowa helicopters in operational scenarios ranging from hover to fast attack.

In early 2010, APKWS completed an integrated test series with the Marine Corps, scoring 19 for 19 in target accuracy. These tests were conducted with a variety of lasing sources, including ground designation, self-designation, and buddy designation using the AH-1Z and AV-8B.

The system is expected to enter low-rate initial production in 2010. BAE Systems is proud to be partnered with the Direct and Time Sensitive Strike Program Office (PMA-242) in the development, integration, and delivery of APKWS.

## Surgical strike capability at an affordable cost

The Advanced Precision Kill Weapon System turns a standard, unguided 2.75-inch (70-millimeter) rocket into a precision guided weapon to give warfighters a low-cost surgical strike capability. APKWS can be integrated directly onto the Super Cobra, Huey, Black Hawk, Kiowa Warrior, and Apache helicopters, and on fixed-wing aircraft and unmanned aerial vehicles.

The system is compatible with autonomous and remote designator systems, allowing for long-standoff engagements. Its wide field of view and long-range laser acquisition allow precision engagements against moving and stationary targets in a variety of tactical situations and engagements. Guidance section installation is simple, requiring no special tools.

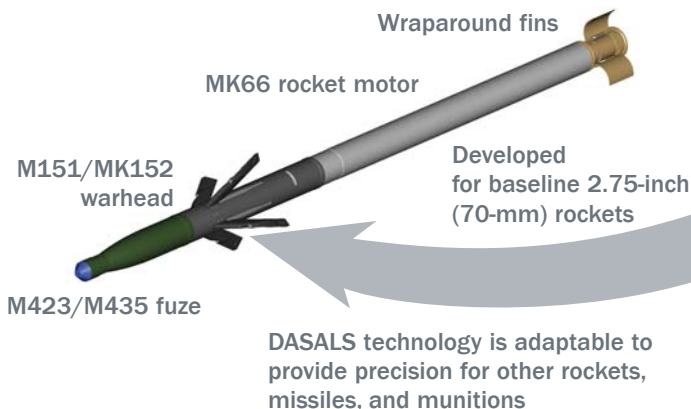


### APKWS benefits:

- Guidance section fits between rocket motor and warhead, requiring no modifications
- Weapon is fired like legacy 2.75-inch rockets from existing launchers
- Compatible with current laser designators
- Increased accuracy and low-yield warhead reduce collateral damage



## APKWS precision-guided 2.75-inch (70-mm) rocket



### High performance

- HELLFIRE® -like designation and accuracy
- Standard 2.75-inch (70-mm) range
- Compatible with a wide range of laser designators

### Integration planned or available for

- AH-1W/Z Super Cobra
- AH-64A/D Apache
- MH-60, SH-60R, OH-58D, AH-6
- AV-8B
- A-10, F-16, F-18
- Unmanned Aerial Systems
- M260/261 and LAU68/61 launchers

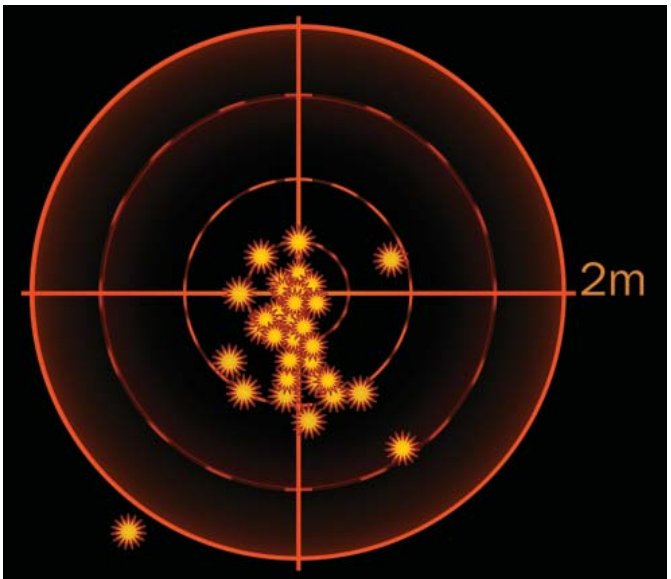
### Maximum flexibility

- Simple field or factory installation
- Minimal training required
- No impact to warhead/fuze effectiveness for M151 warhead
- No impact to MK66 rocket motor
- Takes full advantage of current inventories
- No maintenance required

### Affordable technology

- Unique, low-cost laser seekers mounted on leading edges of each wing
- Seeker protected from operational environments (dust, sand, debris, etc.) prior to launch
- Advanced digital signal processing
- MEMS inertial measurement unit
- Low-cost, complementary weapon system for soft and lightly armored targets

## APKWS guidance section



**APKWS boasts 37 successful hits in air- and ground-launched tests.**



**APKWS guidance sections**

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