86 FIGHTER WEAPONS SQUADRON

MISSION

The 86 Fighter Weapons Squadron conducts the USAF Air-to-Ground Weapon System Evaluation Program, also known as Combat Hammer. The 86 is the single DoD agency charged with conducting predictive battle damage analysis of precision guided air-to-ground munitions (PGMs) using operational weapons, aircraft, maintenance personnel and aircrews.

The 86 evaluates every air-to-ground PGM and PGM-capable fighter, bomber, and unmanned aerial vehicle type in the CAF. Weapons assessed include: GBU-10, 12, 24, 27, 28, 31, 32, 38; CBU 103 and 105, EGBU-15 and AGM-130, AGM-65, 86, 88, and 154. Recent weapons and weapons systems included in A/G WSEP include Hellfire, Small Diameter Bomb and the Joint Air-to-Surface Standoff Missile as well as both F-22 Raptor and MQ-9 Reaper aircraft. A/G WSEP provides liaison support for predeployment, employment, and re-deployment of ACC, USAFE, PACAF, ANG and AFRES forces participating in WSEP and conducts investigative firings of air-to-ground PGMs to address CAF employment issues and support ongoing OT&E efforts.

The squadron hosts 20 to 25 evaluations at Hill and Eglin Air Force Bases, assessing weapon system performance, reliability, capabilities, and limitations in realistic combat scenarios against representative real-world targets. Combat Hammer identifies weapon system and training deficiencies and provides recommendations for corrective action to USAF leaders. Additionally, the squadron maintains the DoD's comprehensive database on PGM performance and investigates capabilities and limitations of currently fielded PGMs.

Detachment 1, 86 Fighter Weapons Squadron provides a permanent presence at Hill Air Force Base facilitating deployments in support of the USAF Air-to-Ground Weapon System Evaluation Program, Combat Hammer. Squadron personnel provide liaison support for predeployment, employment and redeployment of ACC, USAFE, PACAF, ANG, and AFRES forces participating in

A/G WSEP. A/G WSEP assesses operational performance of fighter, bomber, and unmanned aerial vehicle weapon systems employing precision guided munitions in realistic combat scenarios against first-look targets.

LINEAGE
4486 Fighter Weapons Squadron designated and activated, 1 Oct 1985
Redesignated 86 Fighter Weapons Squadron, 1 Dec 1991

STATIONS
Eglin AFB, FL, 1 Oct 1985

ASSIGNMENTS
USAF Tactical Air Warfare Center, 1 Oct 1985
4443rd (later, 79th 53rd) Test and Evaluation Group, 1 Aug 1988
53rd Weapons Evaluation Group, 23 Aug 1999

WEAPON SYSTEMS

COMMANDERS

HONORS
Service Streamers

Campaign Streamers

Armed Forces Expeditionary Streamers

Decorations
Air Force Outstanding Unit Awards
1 Apr 1991-31 Mar 1993
10 Apr 1993-9 Apr 1995
10 Apr 1995-31 May 1996
1 Jun 1998-31 May 2000
1 Jun 2002-31 May 2004
1 Jun 2004-31 May 2006

EMBLEM

Approved, 30 Jul 1987

MOTTO

OPERATIONS

EGLIN AIR FORCE BASE, Fla. Fishing boats equipped with makeshift machine guns and weapons to resemble 'pirate boats' invaded the area by the Midbay Bridge between Niceville and Destin Feb. 6. This was a scene from Combat Hammer, the 86 Fighter Weapons Squadron's annual multi-service exercise to evaluate weapons systems. Approximately 35 local boat captains and mariners contracted by the 96th Operations Support Squadron, simulated realistic swarm attack formation maneuvers in the Choctawatchee Bay while twin-engine jets, multi-role fighter jets, Navy

helicopters and Canadian F-18s targeted them from above to practice simulated 'real time kills.' "We evaluate precision guided munitions against realistic targets with realistic enemy defenses," said Lt. Col. Sean Neitzke, 86 FWS commander. "There are plenty of places in the world where low-tech adversaries can mount 50-caliber machine guns and rocket launchers on small boats for use against us. They could also use other types of shoulder launched weapons, all of which could be a threat to American assets."

To make training more realistic, A-10 pilots shot inert 30-millimeter training rounds at unmanned boats positioned in the Gulf of Mexico during the morning portion of evaluation. The pilots also fired AGM-65 'Maverick' missiles, inert 2,000-pound Guided Bomb Unit-10s, 500-pound GBU-12 laser guided bombs, and GBU-54 laser-guided Joint Direct Attack Munitions. During the training week over 62 bomb drops were made over the Eglin range. The data gathered from those drops is captured by 96th Range Group units. The 96th Range Control Squadron provides real-time mission control and data analysis capabilities for the Weapon System Evaluation Program exercise within Eglin's Central Control Facility. "The 96th RNCS CCF receives data from aircraft, weapons, targets and a multitude of other range sensors and combines that information to provide full situational awareness to the WSEP engineers," said Stan Pitchford, Director, 96th Range Control Squadron. "This allows them to make real-time decisions on the performance of various weapon systems."

Telemetry kits mounted on munitions provide digital data streams captured by ground telemetry sites operated by the 96th Range Support Squadron. This data is then transported to the 96th RNCS CCF by fiber optic cable and translated into information (such as targeting coordinates) the WSEP customer can then analyze. The 96th RNSS also provides high speed cameras and radar data to the CCF to increase situational awareness. "At the end of the exercise, we package all of the mission data and deliver it to the WSEP customer. In a nutshell, we provide WSEP with decision quality data, so they can ensure the employment of the weapons work as intended before they go downrange," said Pitchford. This data measures if the weapons are suitable, reliable, accurate, and if they can be maintained. Those findings are broken down by analysts and briefed to senior level Air Force leaders, combatant commanders and operational planners to aid them with warfighter capability decisions. In addition, the data is used to support funding, training requests, hardware and software when munition deficiencies are identified. The identification of deficiencies allows the Air Force to correct any issues within the Air Force inventory before the weapons are deployed to operational areas of concern, according to Neitzke.

The evaluation exercise also provides and enhances operationally realistic training for the squadron's pilots, maintainers and the participating units. Many times, Combat Hammer is the first time aircrew members get to release a specific type of munition from their aircraft. The goal is to provide pilots without weapons firing experience the chance to get in the cockpit and drop a new weapon, or to drop a weapon normally not found at their home base. "We strive for 50 percent first time shooters in the cockpit," said Neitzke. "We get an allocation of more unique munitions than an operational fighter squadron typically gets at their home station." From the time the munitions are assembled, to when they strike their targets, the 86 FWS's Airmen evaluate every aspect to ensure the munition can be pulled off the rack and employed effectively tomorrow in combat.

"We want to ensure Americans have the best hardware and software possible. Our goal is to

find problems, and fix them, to provide our warfighters the best capabilities we can," said Neitzke. "We want to protect them and help them be more effective in accomplishing their mission."2017

USAF Unit Histories
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Sources
Air Force Historical Research Agency. U.S. Air Force. Maxwell AFB, AL.
Air Force News. Air Force Public Affairs Agency.