

AIR FORCE PROGRAMS

Sensor Fuzed Weapon (SFW)

SUMMARY

- The Sensor Fuzed Weapon (SFW) Preplanned Product Improvement (P³I) demonstrated satisfactory performance and met all requirements.
- Developmental testing of the SFW P³I with a longer delay for submunition chute opening under the Wind-Corrected Munition Dispenser-Extended Range program demonstrated an average number of kills per target that exceeded the requirement value.

SYSTEM DESCRIPTION AND MISSION

The CBU-97 SFW is a 1,000 pound class, unpowered, air-delivered, wide-area smart munition intended to provide multiple kills per pass against armored and support vehicles.

The system is certified on the A-10, B-1, B-2, B-52, F-15, and F-16 aircraft. It is designed to

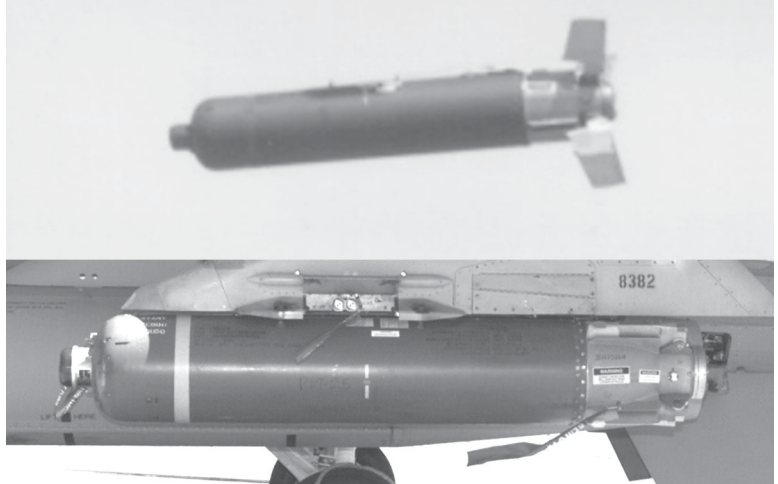
be compatible with various United States Navy, Marine Corps, and NATO aircraft. The weapon is capable of delivery in adverse weather conditions, day or night, at various altitudes and airspeeds. SFW consists of a SUU-66/B Tactical Munitions Dispenser that houses ten BLU-108 sub-munitions. Each sub-munition contains four projectiles, an orientation and stabilization system, a radar altimeter, and a rocket motor. After spin-up and release from the sub-munitions, the projectiles scan the area under their flight path with a two-color passive infrared sensor. The P³I projectile also incorporates an active laser range finder. Upon detecting a valid target, an electronic pulse detonates a charge driving an explosively formed penetrator into the target.

The SFW can be delivered at low or high altitudes and from low to supersonic speeds. High altitude deliveries are more precise when the SFW is configured with the Wind-Corrected Munitions Dispenser tail kit. The Wind-Corrected Munitions Dispenser is an inertial guidance tail kit that replaces the existing tail section of current tactical munitions dispensers to improve delivery accuracy when released from medium to high altitude. The retrofitting of SFW with Wind-Corrected Munitions Dispenser tail kits began in April 2001 and is designated the CBU-105.

In 1996, the Air Force instituted an SFW P³I program, which implements three major improvements: performance against countermeasures, performance against softer targets without degrading current target-set performance, and increased area coverage. The sensor is upgraded to enhance its performance against cooler targets and improve weapon aim-point accuracy. The SFW P³I sub-munition is designated BLU-108B/B and the all-up-round is designated the CBU-105B/B with the Wind-Corrected Munitions Dispenser tail kit. DOT&E approved the current Test and Evaluation Master Plan, which covers testing of SFW P³I, in August 2000.

All tests contributing to LFT&E of the SFW P³I concluded in FY01. DOT&E provided Congress with an LFT&E report on system lethality in March 2002.

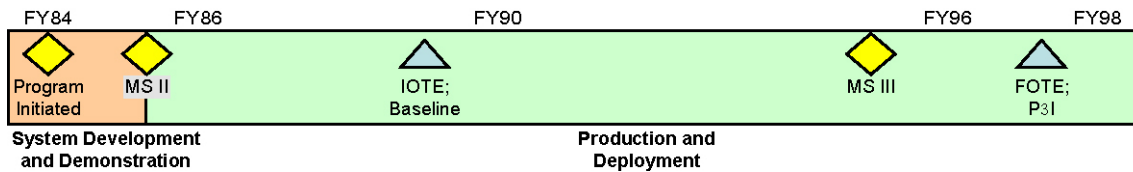
The Air Force approved production of the SFW P³I in January 2001. The Wind-Corrected Munitions Dispenser Milestone III was approved in February 2001. No further acquisition milestones are planned for SFW.



The SFW P³I System demonstrated satisfactory performance and met all requirements in FY02.

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TEST AND EVALUATION ACTIVITY



SFW P³I developmental test/operational test weapon deliveries are complete. The Air Force completed all testing on the P³I System in accordance with the Test and Evaluation Master Plan.

Production verification tests leading to the acceptance of production deliveries are conducted annually. Single weapon tests in November 2003, February 2004, and August 2004 confirm production weapons continue to meet requirements.

Development of a Wind-Corrected Munition Dispenser- Extended Range variant, planned as a cut-in to the current SFW P³I production line, included an increased time delay for submunition chute opening. The Air Force tested the SFW P³I with this longer time delay by releasing a single weapon against the same target array used during SFW P³I operational testing. Developmental testing of this time delay increase occurred in February 2004.

TEST AND EVALUATION ASSESSMENT

The SFW P³I System demonstrated satisfactory performance and met all requirements in FY02.

Under the Wind-Corrected Munition Dispenser- Extended Range program, developmental testing of the SFW P³I with an increased delay for submunition chute opening appear to indicate continued achievement of system requirements. The requirement for average number of kills per target was exceeded during testing.