



JASSM Subjected to Insensitive Munitions/Hazard Classification (IM/HC) Tests

One of the First Air Force/Navy Programs to Aspire to Both Full IM Certification and New Unit Risk 1.2 Hazard Classification

The Joint Air to Surface Standoff Missile (JASSM) system is an air-launched, conventional standoff weapon that can destroy heavily defended high-value, time-sensitive targets. Managed by Program Manager Terry Little, at Eglin AFB, Fla., the JASSM is being developed jointly for the U.S. Air Force and U.S. Navy for both land and carrier-based operations. Both Military Services require the missile to meet Insensitive Munitions (IM) requirements. The prime contractor is Lockheed Martin Integrated Systems (LMIS), Orlando, Fla., and the LMIS team is managed by Michael Inderhees. The program is in the 23rd month of the 62-month Engineering and Manufacturing Development effort. Production configuration missiles are being assembled on the production line at Troy, Ala., and flight-testing has begun.

The JASSM contains the WDU-42/B, a 1000-pound class, penetrating warhead with 240 pounds of AFX-757. AFX-757 is an extremely insensitive explosive developed by the Air Force Research Laboratory/High Explosives Research and Development Facility, Eglin AFB, Fla. The fuze is the FMU-156/B employing a 150-gram PBXN-9 booster. The warhead includes vents in the aft closure and a proprietary Thermally Reactive Retaining ring. The retaining ring releases at approximately 290 degrees Fahrenheit. This, in combination with the vents, provides for the expulsion of the main charge, which precludes excess pressure buildup and any reaction other than burning when exposed to hazardous stimuli.

The system is being subjected to a combination of MIL-STD-2105 Insensitive Munitions and United Nations Hazard Classification (Series 7)

test requirements. A combined test approach has been implemented using a single test or test series to meet both the IM and the Hazard Classification (HC) requirements, with the more stringent requirements having precedence. Combined IM and HC testing helps reduce costs. JASSM is one of the first Air Force/Navy programs to aspire to both full IM certification and the new Unit Risk 1.2 Hazard Classification.

Testing progresses well for the program: Fast Cook-off and Slow Cook-off testing has been successfully accomplished at both the warhead and All-Up-Round levels. In two confined warhead Sympathetic Detonation tests, neither acceptor warhead (two in each test) detonated, giving the JASSM team high confidence that the system will pass its upcoming All-Up-Round Sympathetic Detonation tests without incident.

The warhead has been subjected to Bullet Impact and Fragment Impact tests without any reaction so far. The munitions configuration and lack of any reaction to fragment penetration during the warhead fragment impact tests have resulted in the U.S. Navy IM Office waiving that test for the All-Up-Round. Two final bullet impact tests at the warhead level and subsequent testing at the All-Up-Round level will complete the IM and HC test series. The JASSM project office and Lockheed Martin are driven to produce a truly insensitive round with the potential of attaining the first 1.6 and 1.2.3 Hazard Classifications in the U.S. munitions inventory.