



F-35 Lightning II Program

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F - 35 UNDERGOES PIT TESTING

EDWARDS AIR FORCE BASE, Calif. -- F-35 tail number AF-1 underwent stores static ejection testing at the F-22 Combined Test Force for the past three weeks. The aircraft is carefully positioned over a pit filled with foam, and instrumented inert weapons are released from the aircraft. This type of testing, also known as pit testing, allows the engineers to evaluate how the aircraft is physically affected by the release of the weapon, as well as the how the onboard stores management computers work. Pit testing is a pre-requisite to in-flight weapons release testing. The F-35 CTF tested both a Joint Direct Attack Munition (JDAM) and an Advanced Medium-Range Air-to-Air Missile (AMRAAM).

Photo Descriptions (Top to Bottom):

1. AF-1 awaiting test.
2. AF-1 drops a 2,000-lb JDAM for stores static ejection testing. The dot stickers on the aircraft and weapon are part of a complex camera system that accurately measures and models the aircraft's motion. A series of high speed cameras surround the F-35 and photograph each store release.
3. AF-1 drops an AMRAAM missile. The foam in the pit is positioned in a wedge layout to absorb the impact of the weapon and prevent it from bouncing and damaging the weapons bay. If the weapon and its instrumentation have not been damaged during the drop, it can be reused in future ground releases.
4. Group shot of the F-35 Combined Test Force team that performed stores static ejection testing on an F-35 for the past three weeks.



(Photos courtesy of Lockheed Martin)