



F-35 Lightning II Program

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F - 35 C L I G H T N I N G I I H I T S W E A P O N S T E S T I N G M I L E S T O N E

NAVAL AIR SYSTEMS COMMAND, PATUXENT RIVER, Md.

– Building on the F-35's weapons testing momentum in 2012, the F-35 integrated test force at Naval Air Station Patuxent River completed a weapons ejection milestone for the Lightning II carrier variant on Nov. 28.

CF-2, the second F-35C test aircraft, ejected a 2,000-pound inert GBU-31 [Joint Direct Attack Munition \(JDAM\)](#) and a 500-pound GBU-12 [Paveway II Laser Guided Bomb](#) from an internal weapons bay into a foam-covered concrete pit, completing the series of first-ever ground weapons ejections for the F-35C.

“The integrated government and industry team here, particularly the weapons team, have had a terrific 2012,” said Navy Capt. Erik Etz, director of test and evaluation for F-35 naval variants. “We have a lot more of the envelope to expand on the [F-35C], but we have a lot of momentum and we're well equipped for the in-flight weapons separation work ahead of us.”

In addition to the GBU-31 and GBU-12, the CF-2 team successfully ejected the AIM-120 Advanced Medium-Range Air-to-Air Missile (AMRAAM). Overall, the team completed eleven weapon releases, split between the left and right weapon bays, earlier than planned.

Weapons pit drop testing collects data to measure stresses on the airframe and any neighboring munitions, ensures proper function of weapon and suspension equipment, and validates the separation models for the munitions' ejection characteristics, including trajectories and velocities.

Combined with airborne test missions carrying inert weapons to evaluate environmental and handling conditions, pit drop testing is precursor to airborne separations.

In 2012, the F-35 test team at NAS Patuxent River completed the first [airborne weapons separation](#) for any of the three variants and at Edwards Air Force Base, Calif., the F-35A test team completed successful testing with a GBU-31 JDAM and the AIM-120 AMRAAM.

ABOUT THE F-35 LIGHTNING II

The [F-35C carrier variant](#) of the Lightning II is distinct from the F-35A and F-35B variants with its larger wing surfaces and reinforced landing gear; features used to withstand catapult launches and deck landing impacts associated with the demanding aircraft carrier environment. The F-35C is undergoing [flight test and evaluation](#) flight test and evaluation at NAS Patuxent River prior to fleet delivery.



Time lapse photography shows the release of a 2,000-pound GBU-31 Joint Direct Attack Munition (JDAM) from F-35C test aircraft CF-2 Nov. 15. On Nov. 28, the F-35 integrated test team at Patuxent River Naval Air Station completed pit drop testing from the F-35, using the GBU-31 JDAM, 500-pound GBU-12 Paveway II Laser Guided Bomb, and the AIM-120 Advanced Medium-Range Air-to-Air Missile (AMRAAM). The F-35C carrier variant of the Lightning II is distinct from the F-35A and F-35B variants with its larger wing surfaces and reinforced landing gear; features used to withstand catapult launches and deck landing impacts associated with the demanding aircraft carrier environment. The F-35C is undergoing flight test and evaluation at NAS Patuxent River prior to fleet delivery. (U.S. Navy photo)