

By [Lockheed Martin](#) on Monday, November 5th, 2012

The F-35 Flight Test Update concluded with the record-setting month of June 2012 with the Integrated Test Force completing 114 test flights and 1,118 test points.

Since then, the team set new records of 135 System Development and Demonstration, or SDD, flights for 239 SDD flight hours and more than 1,100 test points in August 2012. With training pilot checkouts at Eglin AFB, Florida, and test pilot qualifications at NAS Patuxent River, Maryland, fifty-four pilots have now flown the F-35 Lightning II.

Weapon testing has progressed as F-35 pilots dropped the program's first 1,000- and 2,000-pound inert Joint Direct Attack Munitions, or JDAMs, and the first AIM-120 AMRAAM separation test was carried out. The team also completed air-start testing for the F-35A and F-35B variants to collect critical data for upcoming high angle of attack tests.

Through 20 October 2012, the F-35 program had accrued 986 test flights for more than 7,800 test points in 2012.

9 July 2012: First F-35B Night Flight

US Marine Corps pilot Maj. Richard Rusnok took off in F-35B BF-2 at 9:57 p.m. EDT for the B-model's first night flight. The one-hour flight from NAS Patuxent River, Maryland, in BF-2 evaluated the aircraft's exterior lighting. It was Flight 204 for BF-2.

17 July 2012: First F-35C Flight With Block 2A Software

The first F-35C test mission with updated Block 2A software was piloted by Navy Lt. Chris Tabert in F-35C CF-3 for 1.1 hours from NAS Patuxent River, Maryland. Block 2A software provides additional capabilities for the F-35, such as the Multifunction Advanced Datalink, the current Link-16, maintenance datalink, and a mission debriefing system. The mission marked CF-3 Flight 68.

27 July 2012: F-35A Airstart Testing Complete

Lockheed Martin test pilot David Nelson completed airstart testing in F-35A AF-4 during Flight 131 over the Edwards AFB, California, test range. The 2.3-hour mission included the final four required airstarts, a critical step prior to the start of high angle of attack tests.

1 August 2012: First Air-To-Air MADL Exchange

F-35As AF-3 and AF-6 accomplished a high data rate exchange with the first F-35 air-to-air communication over the Multifunction Advanced Datalink, or MADL. Air Force Lt. Col. George Schwartz flew AF-3 on Flight 128 for two hours from Edwards AFB, California. Mark Ward piloted the 1.8-hour AF-6 Flight 104.

7 August 2012: First F-35B Airstart Mission

Marine Corps Lt. Col. Matt Kelly piloted the three first F-35B engine spooldowns over the Edwards AFB, California, test range to signal the beginning of F-35B airstart testing. The 1.3-hour mission marked F-35B BF-2 Flight 212.

8 August 2012: First Weapons Separation

Flying at 400 knots at 4,200 feet altitude in F-35B BF3, Lockheed Martin test pilot Dan Levin dropped an inert 1,000-pound GBU-32 JDAM over the Atlantic test range. The 0.8-hour mission was the F-35 program's first weapon separation. The milestone flight was BF-3 Flight 224.

10 August 2012: First F-35C Fly-In Arrestment

Navy Lt. Chris Tabert accomplished the first fly-in arrestment into the MK-7 arresting gear cable by an F-35C at JB McGuire-Dix-Lakehurst, New Jersey. Using an interim arresting hook system, an engineering team composed of F-35 Joint Program Office, Naval Air Systems Command, and industry officials conducted tests to assess cable dynamics, aircraft loads, and performance on F-35C CF-3. During testing, Tabert achieved five of eight attempts into the arresting gear. Completing these tests enabled the F-35 program to improve the redesigned arresting hook system. Engineering design reviews will continue, culminating in initial sea trials projected for spring 2014.

13 August 2012: New Record 19 Flights In One Day

The F-35 program set a new record of nineteen flights in one day in production flights and test flights at five bases across the United States. F-35s were flown from Edwards AFB, California;

NAS Patuxent River, Maryland; JB McGuire-Dix-Lakehurst, New Jersey; NAS Fort Worth JRB, Texas; and Eglin AFB, Florida.

15 August 2012: F-35B Air-starts Complete

Lockheed Martin test pilot Dan Canin piloted F-35B BF-2 for Flight 217 to perform the F-35B's final airstart test mission. Pilots accomplished twenty-seven F-35B airstarts over the Edwards AFB, California, test range to complete the prerequisite for next year's F-35B high angle of attack tests.

17 August 2012: BF-2 Returns To Pax

The F-35B test aircraft BF-2 was ferried back to NAS Patuxent River, Maryland, with Dan Canin at the controls following the completion of airstart testing. After an overnight stop at NAS Fort Worth JRB, Texas, Canin completed the trip from Edwards AFB, California, with 3.4-hour BF-2 Flight 219.

22 August 2012: F-35B Formation Flight

Marine Corps Maj. C. R. Clift and Navy Lt. Cmdr. Michael Burks flew F-35B test aircraft BF-2 and BF-4 in formation over the Atlantic Test Range. The flight, which originated from NAS Patuxent River, Maryland, tested formation flying qualities at subsonic and supersonic speeds to provide data on F-35B handling characteristics. The 1.9-hour mission marked BF-2 Flight 221 and BF-4 Flight 130.

22 August 2012: 20,000th Test Point Complete

The SDD team accomplished 20,000 test points since the beginning of the test program with two F-35A test flights at Edwards AFB, California, and three F-35B test flights at NAS Patuxent River, Maryland. The overall F-35 SDD flight test program plan calls for 59,585 test points to be verified through developmental test flights by 31 December 2016.

23 August 2012: 1,000th F-35A Test Flight

The F-35A test fleet marked the program's 1,000th conventional takeoff and landing test flight during three test missions at Edwards AFB, California.

27 August 2012: F-35B Radar Cross Section Testing Complete

Marine Corps Maj. Richard Rusnok piloted F-35B BF-5 for a 1.2-hour flight to complete baseline testing of the aircraft's radar cross section on a series of flights from NAS Patuxent River, Maryland. The flight marked BF-5 Flight 51.

31 August 2012: New Flight Test Records

The F-35 test team accomplished 135 SDD flights for 239 SDD flight hours and more than 1,100 test points for a record-setting month in August.

12 September 2012: Five Jets Airborne At Pax

The Integrated Test Force at NAS Patuxent River, Maryland, flew five simultaneous test missions: F-35B BF-2, BF-3, BF-4, and BF-5; and F-35C CF-2.

13 September 2012: 2,000 F-35A Flight Hours

The F-35 program's 2,000th F-35A conventional takeoff and landing test flight hour on a 1.9-hour mission systems sortie occurred in F-35A AF-7 on its 123rd flight. Air Force Maj. Eric Schultz was at the controls for the milestone flight from Edwards AFB, California.

24 September 2012: External Weapons Formation Flight

Air Force Maj. Eric Schultz and Maj. Brent Reinhardt flew F-35A aircraft AF-1 and AF-2 in formation with external inert AIM-9X missiles. The 1.3-hour test flight measured formation flying qualities. The sorties, AF-1 Flight 250 and AF-2 Flight 279, originated from Edwards AFB, California.

4 October 2012: Pax Adds A Pilot

Marine Corps Capt. Michael Kingen joined the test pilot roster at NAS Patuxent River, Maryland, with his 0.9-hour check flight. The first flight for the fifty-fourth F-35 pilot was F-35C CF-3 Flight 85.

4 October 2012: Production Jet Joins Pax Fleet

An F-35 production jet landed at NAS Patuxent River, Maryland, for the first time when F-35B BF-17 was ferried from NAS Fort Worth JRB, Texas, with Bill Gigliotti at the controls. BF-17 will

temporarily support the Integrated Test Force at Pax until it joins the Operational Test team at Edwards AFB, California. The 3.1-hour ferry flight marked BF-17 Flight 8.

16 October 2012: First F-35A Weapon Release

The F-35A completed the conventional takeoff and landing variant's first inflight weapon release at China Lake, California. The weapon release followed the first F-35B weapon release in August. Air Force Maj. Eric Schultz released an inert, instrumented 2,000-pound GBU-31 from the aircraft's left weapon bay over the Naval Air Warfare Center Weapons Division ranges. The 1.3-hour mission, originating from Edwards AFB, California, marked F-35A AF-1 Flight 254.

19 October 2012: First F-35 AMRAAM Jettison

F-35A test aircraft AF-1 accomplished another testing milestone with the program's first aerial release of an AIM-120 AMRAAM. Air Force Maj. Matthew Phillips jettisoned the instrumented AIM-120 from the aircraft's internal weapon bay over the Naval Air Warfare Center Weapons Division test range at China Lake, California, during a one-hour mission. AF-1 Flight 255 originated from Edwards AFB, California.