The Power of Flight

NEWS RELEASE

The LEAP engine: 10 years on

• More than 385 aircraft in service • Surpassed 1.5 million engine flight hours

FARNBOROUGH — 14 July 2018 — On July 13, 2008, CFM International's parent companies, GE Aviation and Safran Aircraft Engines, made history by launching the advanced LEAP-X engine program. Ten years later, this engine is delivering everything that was promised that day and more.

"That was a great day for CFM and a bold move for GE and Safran Aircraft Engines," said Gaël Méheust, president and CEO of CFM International. "That day, they committed to a multi-billion-dollar engine development program that, at the time, did not have an airplane application. But the parent companies were so confident in the joint venture and its future that they also renewed the partnership agreement to the year 2040."

The first engine application didn't come until about 18 months later, when COMAC chose the LEAP engine to be the sole Western powerplant for its new 150-passenger C919 in December 2009. A year later, Airbus chose the LEAP engine as an option for its A320 new engine option aircraft. In November 2011, Boeing made the LEAP engine the sole powerplant for its new 737 MAX program. All the while, CFM maintained a rigorous development schedule, ticking off milestones on schedule, if not ahead of schedule. In fact, all three engine models were certified within one year.

"The LEAP development program has been absolutely unprecedented," Meheust continued. "Over the course of five years, we were developing three engines simultaneously and the team did a phenomenal job keeping it all on schedule. In fact, we actually ran the first full LEAP engine in 2013, two days ahead of the target date we had set back in 2008.

"At the end of the day, we have designed an engine that has met every one of our commitments and we are incredibly proud of this accomplishment. But even more important than that, our customers love this engine; that is the true measure of our success."

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The LEAP Timeline:

July 13, 2008: CFM launches the advanced LEAP-X engine and GE and Safran extend the partnership agreement to the year 2040 and launch CFM Services.

June 2009: The first full LEAP engine core begins its 100-hour ground test

program. The RTM fan completes cross-wind and acoustic testing.

November 16, 2010: The LEAP-1C is chosen as the sole Western powerplant for the new COMAC C919 airplane.

December 1, 2010: Airbus selects the LEAP-1A as one of the engine options to power the Airbus A320 new engine option.

June 15, 2011: The LEAP-1A program is launched with an order from Virgin America for engines to power 30 A320neo aircraft.

June 2011: CFM books orders for 910 LEAP engines at the Paris Air Show at a value of $11 billion.

November 14, 2011: Boeing selects the LEAP-1B as the sole powerplant for the new 737 MAX. In December, Southwest Airlines launches the 737 MAX program with an order for 150 airplanes.

2012: Momentum for the LEAP engine continues to build as CFM receives orders for nearly 1,200 engines.

September 4, 2013: The first full LEAP-1A engine begins ground testing at GE's Peebles facility, two days ahead of schedule.

June 13, 2014: The first LEAP-1B engine begins ground testing at Safran facilities in Villaroche, three days ahead of schedule.

October 6, 2014: The LEAP-1A/-1C begins flight tests at GE facilities in Mojave, California.

April 29, 2015: The LEAP-1B begins flight tests at GE facilities in Mojave, California.

May 19, 2015: The LEAP-1A begins flight testing on the Airbus A320neo.

November 2, 2015: First LEAP-1C-powered C919 rolls out at COMAC.

November 20,2015: The LEAP-1A is simultaneously certified by both EASA and the FAA.

December 8, 2015: Boeing rolls out the first LEAP-1B-powered Boeing 737 MAX airplane ahead of its flight test program.

January 29, 2016: The LEAP-1B begins flight tests on the Boeing 737 MAX 8.

May 4, 2016: The LEAP-1B is simultaneously certified by both EASA and the FAA.

May 31, 2016: The LEAP-1A-powered A320neo is simultaneously awarded Type Certificates by both EASA and the FAA.

August 2, 2016: Pegasus Airlines becomes the first to introduce the LEAP-1A-powered A320neo into commercial service.

March 1, 2017: The LEAP-1A-powered A321neo is simultaneously awarded Type Certificates by both EASA and the FAA.

March 9, 2017: The LEAP-1B-powered 737 MAX 8 is awarded Type Certificates by the FAA.

May 5, 2017: The LEAP-1C-powered C919 completes its maiden flight.

May 23, 2017: Malindo becomes the first airline to put the LEAP-1B-powered 737 MAX 8 into commercial service.

June 21, 2017: Both the LEAP-1A and LEAP-1B receive 180-minute ETOPS certification from the FAA and EASA.

July 2018: The LEAP fleet in service surpasses 1.5 million engine flight hours.

July 2018: CFM delivers the 1,000th LEAP engine.

Contact(s)

/ Safran Company
JAMIE JEWELL / jamie.jewell@ge.com / +1 513-885-2282

/ Safran Company
CHARLES SORET / charles.soret@safrangroup.com / +33 6 31 60 96 79