



Outperform. Outpace. Only AETP.

GE's XA100 for the F-35



Revolutionary capability for the F-35

As the F-35 evolves in the coming decades to stay ahead of emerging threats, its engine must keep up. That means an engine with more power and cooling capacity for next-generation systems, better fuel economy, additional thrust, and more durability than today.

GE is ready to answer the call with the XA100 adaptive cycle engine. Designed, built and testing through the U.S. Air Force's Adaptive Engine Transition Program (AETP), the XA100 represents the best path to maximize F-35 capability for decades to come.

Revolutionizes Capability

GE's XA100 would be the most capable combat engine ever introduced to the field, keeping the F-35 relevant decades into the future.

Outpaces Adversaries

The United States has always led the world in propulsion technology, but it's not a birthright. Investment in this engine extends our lead over near-peer threats at a critical time.

Creates Competition

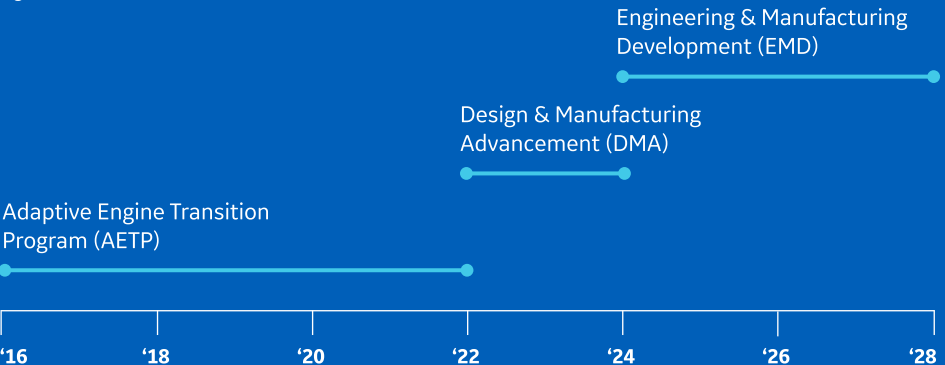
History shows competition increases innovation and reduces costs. There's one way to create a head-to-head engine competition for the F-35: by moving forward with adaptive cycle engines.

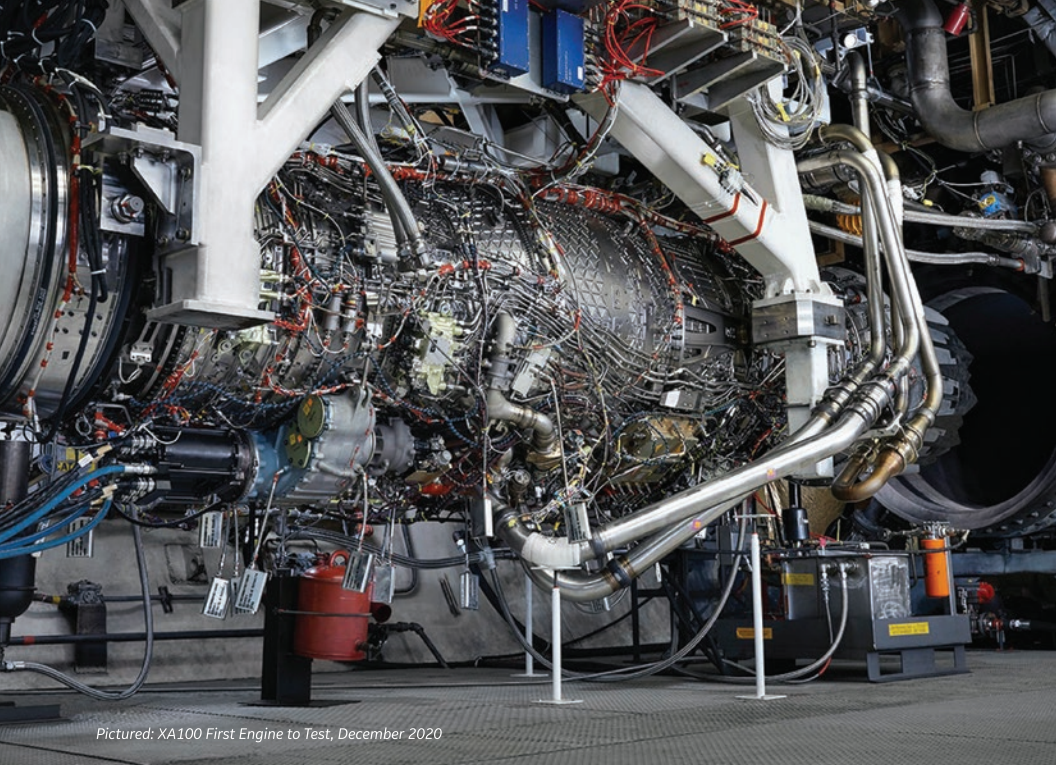
Decarbonizes Fleet

GE's XA100 produces 25% lower CO₂ emissions than today's engine and is compatible with biofuels. It represents meaningful action toward DoD decarbonization efforts.

Path to production

by 2028





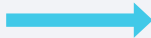
Pictured: XA100 First Engine to Test, December 2020

Adaptive Cycle Engines Explained

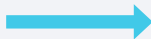
Jet engines today are generally built to optimize either fuel efficiency and range or thrust and performance. Adaptive cycle engines are built to automatically alternate between those settings—high-thrust mode and high-efficiency mode—which opens a wider range of missions. A game-changing third stream of cooled air enables the XA100 to double the thermal management versus today's engine.

Propulsion Capability

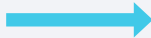
25%
better fuel efficiency



>10% more thrust



2x thermal
management capability



Mission Impact

30% more range and more
tanker flexibility

20-40% faster acceleration for
maneuverability and survivability

Capacity for **decades** of F-35
mission system growth

Real Engine, Real Results

• **First engine to test December 2020**
Completed March 2021

• **Second engine to test August 2021**
Completed November 2021

• **Altitude tests at Air Force Test Facility
March 2022**
Completed August 2022

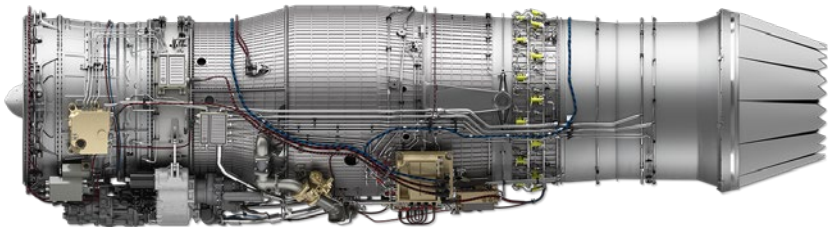
Test data confirms that this engine meets,
and in some situations, exceeds challenging
Air Force performance goals.



U.S. Air Force partnership

The Air Force has invested \$4+ billion across industry since 2007 to mature adaptive cycle engine technology. GE is one of two companies testing its adaptive cycle engine under the Adaptive Engine Transition Program (AETP).

"[AETP is] not a second F-35 engine. It's a completely new and much-improved F-35 engine." - Air Force Secretary Frank Kendall, April 27, 2022



F-35 Compatibility

F-35A, F-35C

Drop-in compatible with no structural modifications to either aircraft

Comprises ~90% of U.S. program of record

F-35B

Compatible design in development today with F-35 Joint Program Office and Lockheed Martin to offer tri-variant solution



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