

Video Release: Boeing Begins X-66 Modification, Removing Engines and Adding Scanning Technology

- Design collaboration with NASA builds on Boeing's sustainable aviation efforts
- 3D scanning to inform X-66 engineering design and build
- MD-90 wings will soon be removed, Transonic Truss-Braced Wings installed

PALMDALE, Calif., Jan. 8, 2024— Boeing [NYSE:BA] has begun extensive modification of an airplane that will become the X-66 Sustainable Flight Demonstrator (SFD), removing engines and completing 3D metrology scans to inform the plane's design and build plan.

The MD-90 jet's original wings will soon be removed to test the Transonic Truss-Braced Wing (TTBW) design with new ultrathin wings braced by struts with larger spans and higher-aspect ratios. TTBW's wider wing span and aerodynamic efficiency could significantly accelerate opportunities to reduce fuel use and emissions.

The X-66 is NASA's first experimental plane project focused on helping the U.S. achieve its goal of net-zero aviation greenhouse gas emissions. Ground and flight testing is expected to begin in 2028.

Boeing released a time-lapse video of recent steps in the conversion including:

- Removal of the engines and thrust reversers
- Jacking and shoring of the jet to simulate the condition of the airplane during full modification
- 3D laser scanning of the airplane structure

With the scanning data, Boeing will use 3D modeling software to overlay the existing MD-90 structure with the new X-66 components, enabling more accurate spatial integration and the opportunity to identify and mitigate risks early in the modification process.

Boeing will continue to provide updates as the project progresses.

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