

X-59 Quiet Supersonic Technology X-Plane

Quieting the Sonic Boom

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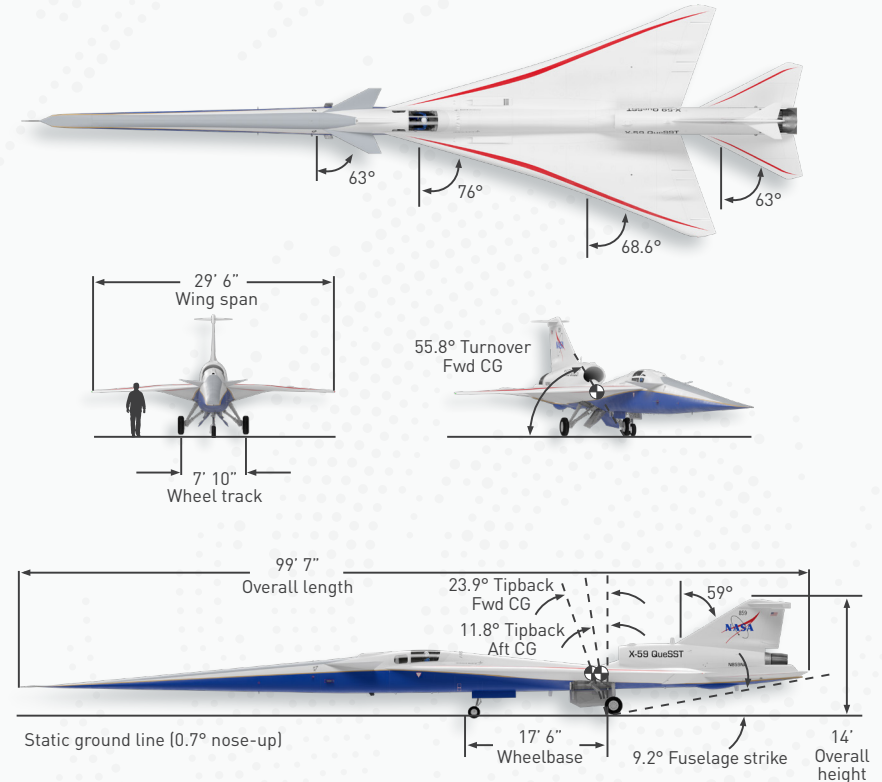
Quieting the Sonic Boom

Lockheed Martin. Your Mission is Ours.®

SUPPORTING NASA'S MISSION TO QUIET THE SONIC BOOM

For more than a decade, Lockheed Martin Skunk Works® and NASA have partnered to solve one of the most persistent challenges of supersonic flight – the sonic boom. Lockheed Martin Skunk Works is leading the design, build and flight test of the X-59 Quiet Supersonic Technology X-plane demonstrator. The technology demonstrator will be flown over populated areas to provide U.S. and international regulators with statistically valid data required to help approve new rules that could allow quiet commercial supersonic flight over land, which could bring us one step closer to quiet supersonic travel for passengers around the globe.

The X-59 is an experimental supersonic aircraft shaped to reduce the loudness of a sonic boom reaching the ground to that of a gentle thump. The X-plane accomplishes this by tailoring the volume and lift distribution to separate the shocks and expansions associated with supersonic flight. The resulting supersonic “heartbeat” is dramatically quieter than the disruptive N-wave boom generated by today’s supersonic aircraft. We look forward to supporting NASA in the effort to obtain the data regulators will need to make informed decisions on appropriate sonic boom levels in the quest to remove the prohibition on supersonic over land flight.



X-59 CONFIGURATION

Max Design Gross Weight.....	25,000 lbs
Empty Weight.....	14,990 lbs
Fuel.....	8,700 lbs
Payload.....	600 lbs
Design Mach.....	1.4
Loudness.....	<75 PLdB
Engine.....	1xF414-GE-100
Landing Gear.....	F-16 Blk25 NLG F-16 Blk25 MLG