

787 Flight Test Overview

Test Aircraft	Assignment	Engine
ZA001 – establishes the basic flight envelope		
(Carries full data system)	Flutter, envelope expansion Systems: Brakes/Brakes/ Hydraulics Aerodynamics—low speed performance Stability and control Flight controls	Rolls-Royce Trent 1000
ZA002 – Extensive runway safety tests; verifies stability, systems		
(full data system)	Stability and control Systems—electrics Autopilot Avionics – miscellaneous Propulsion	Trent 1000
ZA003 – Least flown airplane; cabin systems		
(Minimum data system)	Systems Noise Flight Deck Avionics EME/HIRF* Cabin – miscellaneous ETOPS/F&R	Trent 1000
ZA004 – High speed performance		
(Full data system)	Aero – high speed performance Propulsion – performance Flight loads survey Community noise tests ETOPS/F&R	Trent 1000
ZA005 – Verify basic aircraft with alternative engine		
(Full data system)	Flutter Aerodynamic performance Propulsion systems Stability and control, flight controls Avionics Community noise ETOPS/F&R**	General Electric GEnx-1B
ZA006 – Cleanup testing		
(Minimum data system)	Miscellaneous tests with minimum analog requirements EME (lightning) HIRF (contingency)** ETOPS/F&R*	GEnx-1B

Source: Boeing *Electromagnetic Effects/High Intensity Radiated Field **Extended Operations/Functionality & Reliability
Boeing expects 2,430 flight hours and 3,100 ground test hours in the ZA001-ZA004 testing program. The ZA005-ZA006 tests will account for 670 flight and 600 ground test hours.