

Performance Course

This course includes a total of 8 academic hours and one in-flight simulator (IFS) Learjet 25 flight per student. Each flight last approximately 1.5 hours. Each student will fly the sortie from the evaluator pilot position while other students may fly in the jumpseat or at the engineer's station and serves as the test conductor.

Objectives

1. Understand performance flight test principles and be able to execute performance flight test techniques.
2. Understand and be able to demonstrate data reduction techniques.

Classroom Academic Instruction

- Introductory Briefing
 - o Course Overview
 - o Emergency Training Certification
- Performance Flight Testing
 - o Pitot Statics
 - o Airspeed and Altimeter Calibration
 - o Stall Speed Determination
 - o Level Flight Performance
 - o Climb Performance
 - o Air Minimum Control Speed (Vmca)
 - o Test Flight Planning
 - o Performance Testing in the Learjet 25
- Data Reduction

Flight #1 – Performance Testing (1.5 Hours)

- Introduction to Performance Flight Testing
- Techniques for Quantifying the Effects of an Outer Mold Line Modification
- Level Acceleration and Sawtooth Climb Flight Test Techniques
 - o Used to Quantify Specify Excess Power
- Climb and Cruise Performance Flight Test Techniques
- Methods to Determine Stall Speed and Air Minimum Control Speed

