

# WALTER H. BEECH WIND TUNNEL



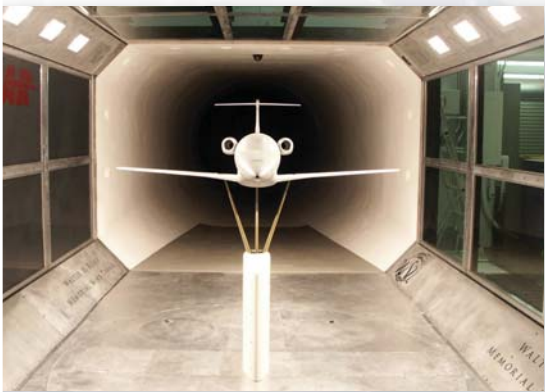
*The National Institute for Aviation Research is equipped to handle a wide variety of aerodynamic testing needs, offering services in model design and production, supersonic wind tunnel testing and subsonic testing in the Walter H. Beech Wind Tunnel.*

**Representative Clients:** Local aircraft industry, WSU grant research, small aviation businesses, cell phone antenna manufacturerers, etc.

**Recent Projects:** Boeing ScanEagle Compressed Carriage UAV, Learjet 85

## **Capabilities & Equipment:**

- Test section 7'H x 10'W x 12'L
- 2,500 HP fan
- Active heat exchanger
- Speeds of more than 240 mph
- Real-time data reduction and display
- Digital video and still cameras
- Aerotech ATE external balance with several mounting arrangements
- Triumph and Aerotech ATE internal balances and c-strut sting system
- PSI 8400 pressure measurement system with more than 280 channels available
- Flow visualization with multi-camera video recording system and 3-watt laser sheet, smoke, tufts, china clay, etc.
- Engineering technical services available from WSU aerospace engineering faculty including computational fluid dynamics modeling, analysis and wind tunnel model structural analysis
- Access to 9-by-9-inch supersonic tunnel to simulate wind speeds from Mach .9 to Mach 4 for 30-second intervals with 40-minute prep time



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*Located on the Wichita State University campus, in a city recognized as the Air Capital of the World, The National Institute for Aviation Research (NIAR) is a prestigious state-of-the-art aerospace research and development laboratory with global reach and expertise. NIAR integrates university, government and industry in cooperative efforts to advance technologies.*

*The Institute's clientele include many of the world's aerospace manufacturers, NASA and the FAA. It is the largest aviation R&D academic institution in the United States, with 135,000 square feet and more than a dozen laboratories. NIAR is recognized internationally as a high-tech research and development, design, testing, certification and learning center.*

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