

Your complete solution
for program planning,
design, fabrication,
testing and analysis.

LOCKHEED MARTIN 



High Speed
Wind Tunnel

To schedule your next test:
Call HSWT Manager, (972) 603-2751
www.lockheedmartin.com/hswt

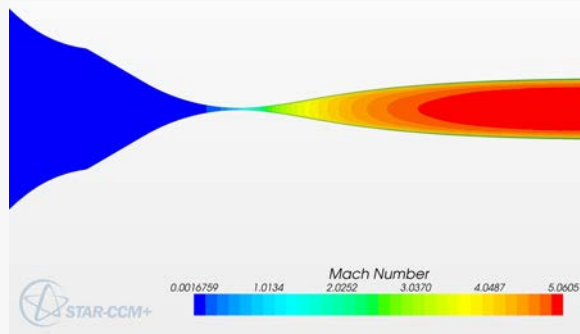
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High Speed Wind Tunnel: The Complete Solution

Design

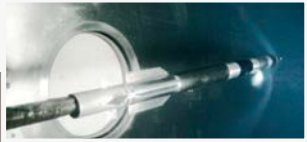
Aero Design

The High Speed Wind Tunnel is available to support your program of any size or complexity. Our team has extensive experience in flight vehicle programs from concept phase through design, test and data analysis.



Test Systems Design Products and Services

- Calibrations of Balances and Transducers
- Strain Gage Installation
- Force Measurement Consulting
- Six-Component Internal Strain Gage Force Balances, With or Without Flow-Through Capability
- Special Purpose Balances
- Calibration Equipment
- Complete Models, Components and Modifications
- Stings and Support Equipment
- Thrust and Test Stands



Testing

High Speed Wind Tunnel



The High Speed Wind Tunnel is located in Dallas, Texas

Blow-Down-To-Atmosphere Facility

4x4x6-Ft Test Section Size

Operating Ranges

Speed	Mach 0.3 to 5.0
Dynamic Pressure	250 to 5,000 psf
Temperature	100° F Nominal
Altitude	-10,000 to 75,000 ft
Reynolds Number	2.0 to 38.0×10^6

Support Facilities

- High Volume Static Flow Facility
- High Pressure Nitrogen System, 6,000 psi
- Complete On-Site Machine Shop

Unique Capabilities

- Captive Trajectory
- Inlet Throttle
- Remote Roll and High Angle
 - α -10° to +100°, ϕ \pm 180°
- Particle Imaging Velocimetry (PIV)
- Infrared Thermography

Analysis

Aerodynamic Support Services

The Aero Technology Center, in conjunction with the HSWT team, can provide any combination of the following services for your test program:

Design Definition

- Preliminary Through Final Configuration
- Surface Sizing Analysis
- Drag Predictions
- Trade Studies
- Airload Predictions

Model Design Support

- Model Requirements
- Design Oversight

Aero Prediction

- Empirical
- Analytical
- CFD

Test Support

- Planning
- Predictions
- Conduct

Post-Test Data Analysis

- Results Presentation
- Aerodynamic Database Creation
 - Support 3-DOF Simulation
 - Support 6-DOF Simulation

