Wind Tunnel Testing Laboratory

ARO 4351L – 01

[INSERT PICTURE]

**Name of Experiment**

Experiment [Insert Number]

By: Group 4

Khanh Nguyen

John Belarmino

Brandon Huynh

Matthew Portugal

Justin Millsap

Pavel Marques

[INSERT DUE DATE]

Aerospace Engineering Department

California Polytechnic University

Pomona, California

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#### List of Symbols and Notation

M = Mach Number

= Specific Heat Ratio

p = Static Pressure

p1 = Total Pressure

= *Ambient Pressure*

= Mach Angle or Viscosity

*Laminar Boundary Layer thickness*

*Turbulent Boundary Layer thickness*

= *Freestream Velocity*

*h or Z =* Height

Density

g = Gravity

*Rex = Reynolds Number located at x*

x = Distance

P-S = Pitot Static

AeroFMS or FMS = Force Measurement System

NACA = National Advisory Committee for Aeronautics

ft = Feet

sec = Seconds

LSWT = Low Speed Wind Tunnel

SSWT = Supersonic Wind Tunnel

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#### Summary

# Test Objective and Theoretical Basis

#### 1.1 Low Speed Test Integration

#### 1.2 High Speed Test Integration

# 2.0 Test Procedure and Equipment

##### 2.1 Low Speed

2.1.1 Low Speed Equipment

2.1.2 Low Speed Test Procedure

##### 2.2 High Speed

2.2.1 High Speed Equipment

2.2.2 High Speed Test Procedure

# 3.0 Data and Error Analysis

# 3.1 Low Speed

# 3.1.1 Low Speed Raw Data (Excel)

# 3.1.2 Low Speed Calculations

# 3.1.3 Low Speed Results and Error Analysis