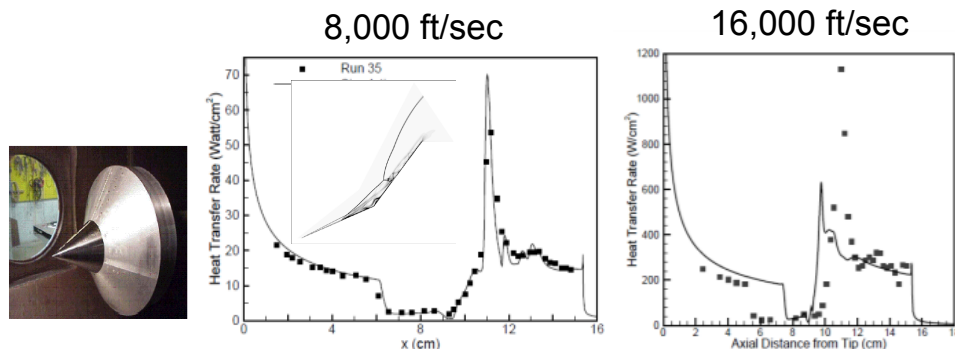


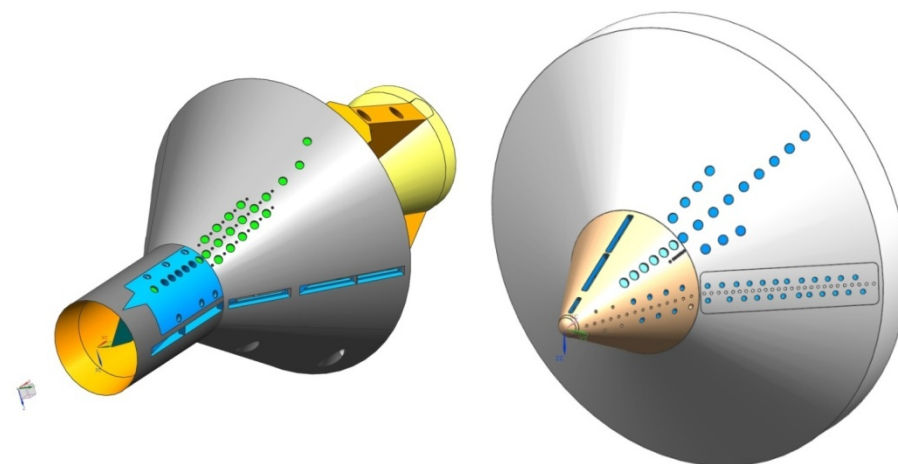


# Measurements in LENS XX of Real Gas Effects on Separated Shock Wave/Laminar Boundary Layer Interaction for “Blind Code Validation” Studies

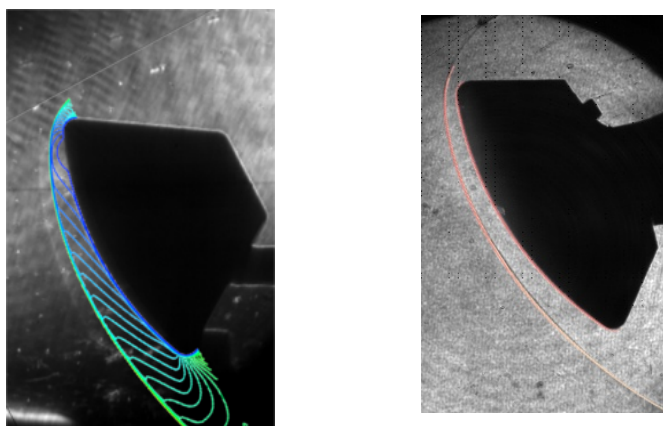
Modeling Real Gas Effects in Interacting Hypervelocity Flows Remains a Key Problem



New Models for Current Studies in LENS-XX at Total Enthalpies from 10 to 25 MJ/kg

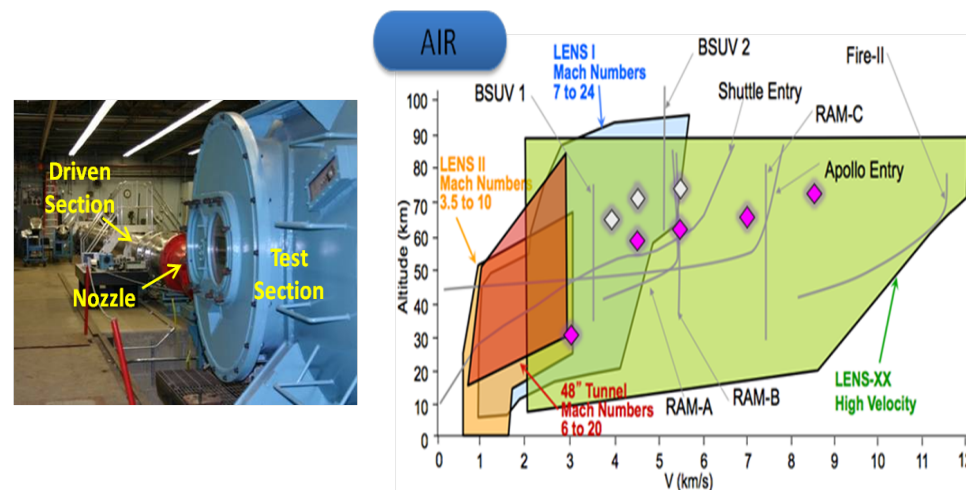


Comparison between Predicted and Measured Shock Shape over Blunt Body in LENS I and XX



LENS-I (14 MJ/kg)      LENS-XX (17 MJ/kg)

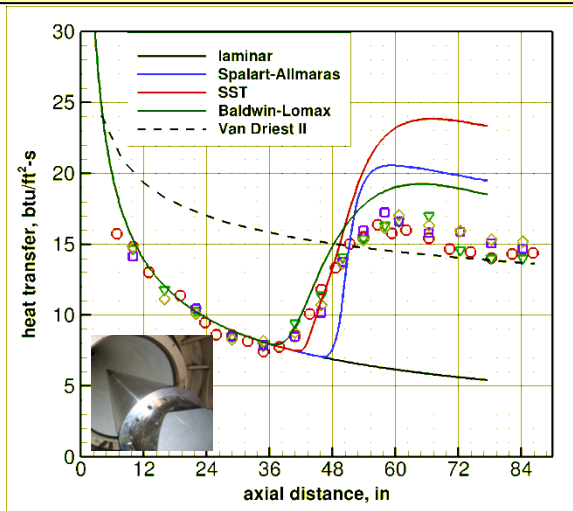
Tests Points at from 10MJ/kg to 25MJ/kg for Shock Interaction Studies in LENS XX



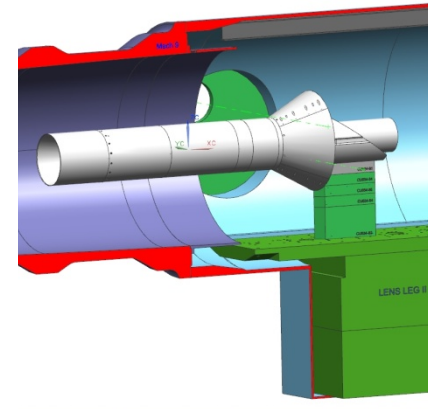
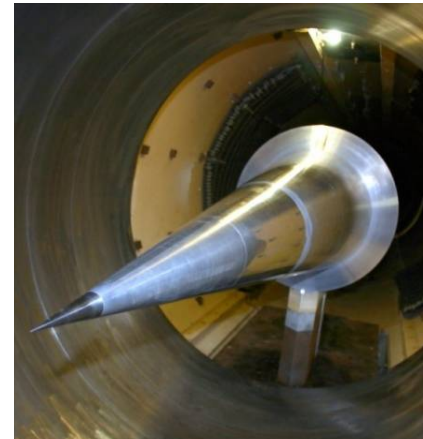


# Measurements in LENS II in Regions of Shock Wave/Turbulent Boundary Layer Interaction for “Blind Code Validation” Studies

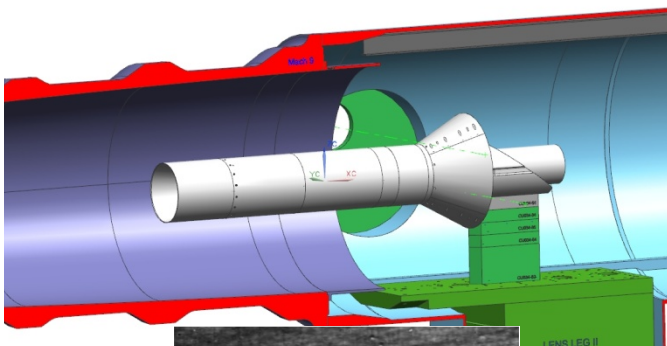
There Remains a Problem Predicting Turbulent Heating to Cones at Velocities above 6,000 ft/sec with Current CFD Codes



New Models for Current Studies in LENS-II at Velocities from 2,500 to 8,000 ft/sec



Test Condition	$M_\infty$	ReL	$T_\infty$ , K	Wedge angle
I	6	85.E6	185	37°



- Measurements on Double Cone at Flight Enthalpies at Mach 5, 6, 7, and 8 in high Reynolds Number Flows

