SAND2015-8154R

Mean Flow Data for HEG Shot 1302

Ross Wagnild
Engineering Sciences Center
Sandia National Laboratories
Albuquerque, NM 87123

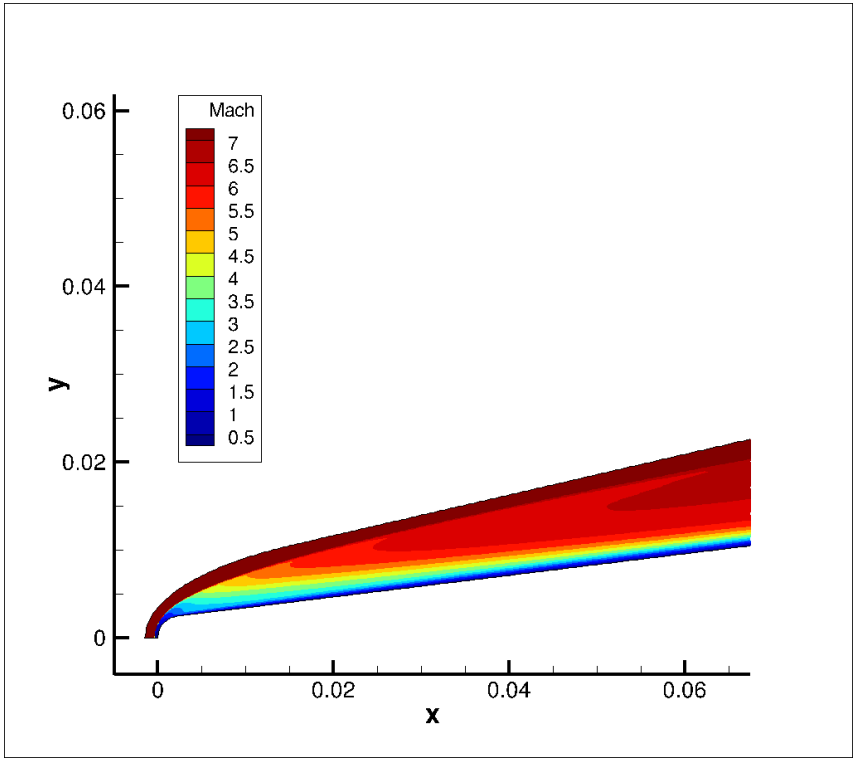
SANDXXXX

Mean Flow Parameters

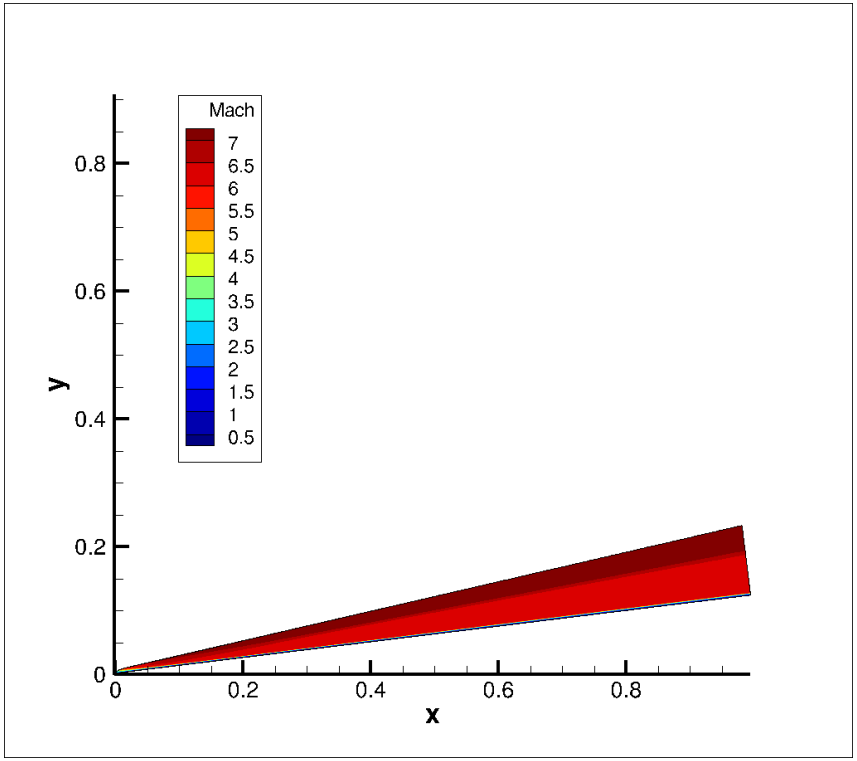
- 7º Half-angle circular cone
  - 2.5mm-diameter nose radius, 1.0 m long
    - Grid uses 1215 x 350 cells, axi-symmetric
- Run Conditions - 1302
  - Velocity = 2399 m/s; Density = 10.7 g/m^3;
  - Temperature = 264 K; Vibrational Temperature = 264 K
  - Wall Temperature = 293 K; Mach 7.35
  - Mass Fractions
    - N2 = 0.7527; O2 = 0.2163; NO = 0.0307; O = 0.0003
- Flowfield data sent with presentation.

Mach Contours

Nose Region

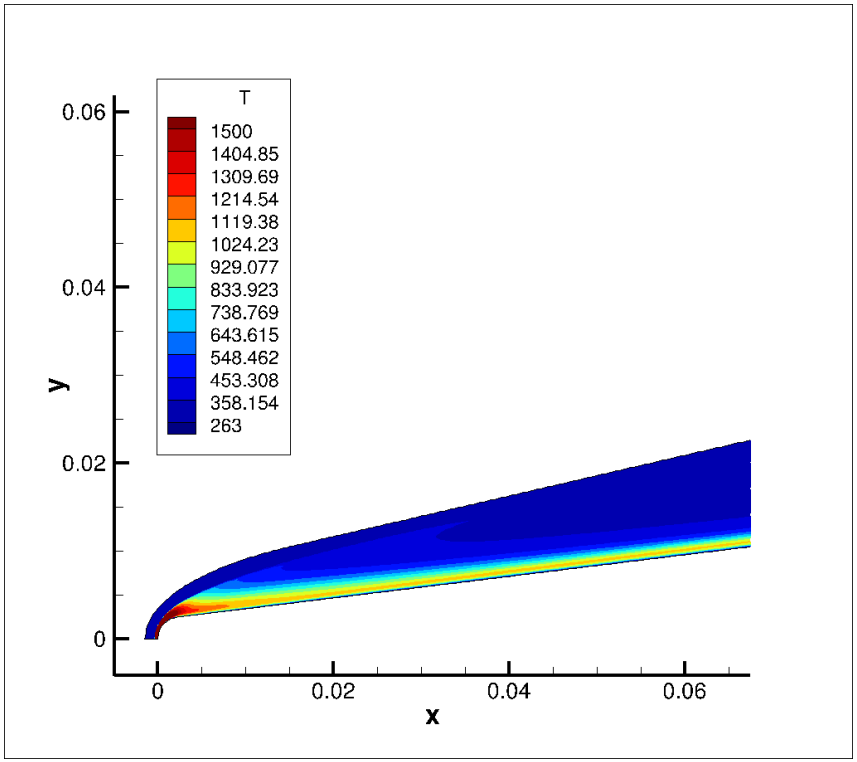


Full Cone

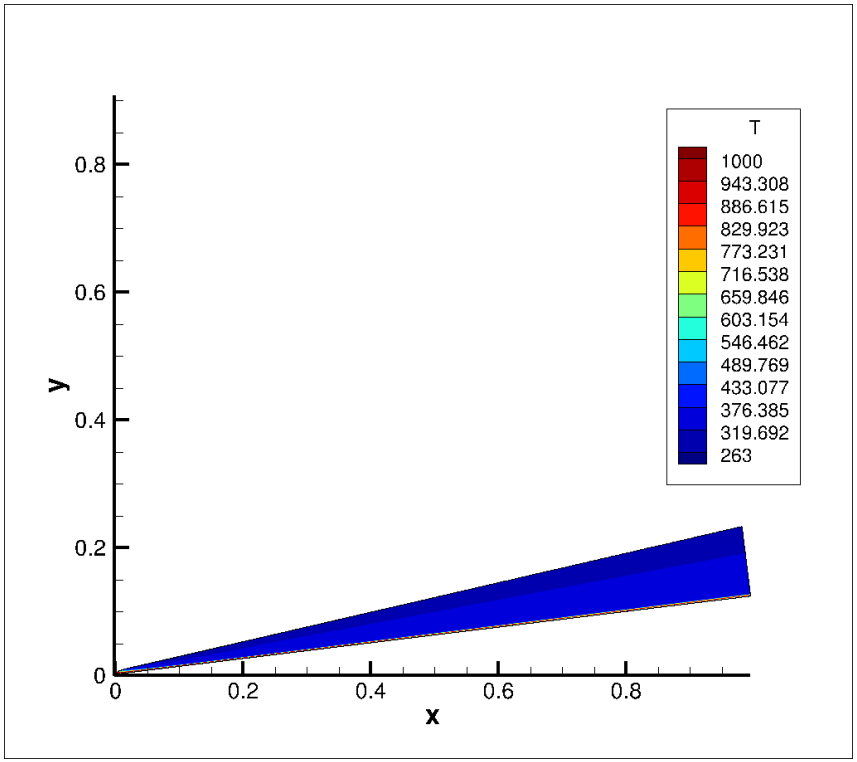


Temperature Contours

Nose Region

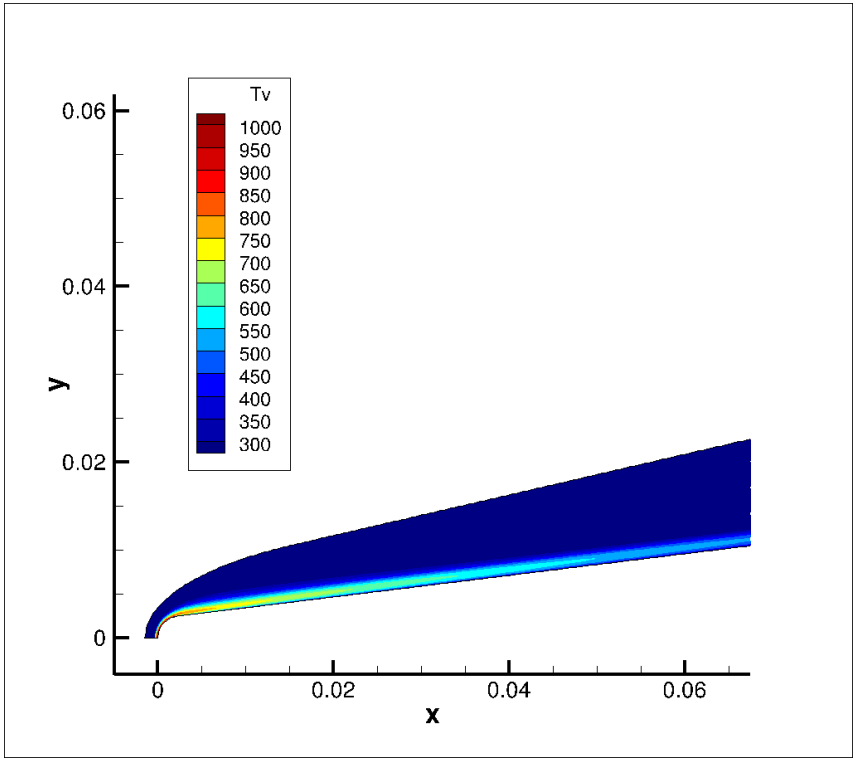


Full Cone



Vibrational Temperature Contours

Nose Region



Full Cone