BLAST 2D COMPUTATIONS OF PLANAR MACH REFLECTIONS FROM SINGLE AND DOUBLE WEDGE GEOMETRIES

HISLEY, D.M.

Computations of the reflection of planar shocks from wedge surfaces are performed with BLAST 2D in order to compare to computational results from the SHARC, and the STEALTH codes and for comparison to experimental data obtained from the Ernst Mach Institute. Results are presented for an incident shock with Mach number equal to 2.12 impinging on 30, 45 and 60 degree wedges. Also, BLAST 2D results are presented for an incident shock with Mach number equal to 1.295 impinging o a 25 and 60 degree double

wedge for comparison to an experimental shadowgraph published by Takayama and Ben-Dor. A new type of contour plot The "computational shadowgraph" is shown to produce excellent agreement with the experimental shadowgraph for the double wedge case.