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Simulations of a Reshocked Varicose Gas Curtain C.A. ZOLDI-SOOD, R.A. GORE, B.J. BALAKUMAR, G.C. ORLICZ, D. RANJAN, C.D. TOMKINS, K.P. PRESTRIDGE, Los Alamos National Laboratory — The evolution of a varicose curtain of SF_6 gas accelerated by a Mach 1.2 shock wave in air and then reshocked 600 μs later has been examined both experimentally and computationally. Two-dimensional simulations incorporating the experimental initial conditions have been performed using RAGE, an adaptive-mesh Eulerian code. The effects on the flow before and after reshock are examined and the results are compared with experimental images of the curtain's evolution. Also a sub-grid mix model in RAGE is applied to the simulations and the computed density and velocity correlations are compared with data available from the experiment.

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