LA-UR-22-21212

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Title:	(U) FLAG Overset Mesh Demo
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Intended for:	Correspondence with AWE colleague.
Issued:	2022-02-11

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(U) FLAG Overset Mesh Demo

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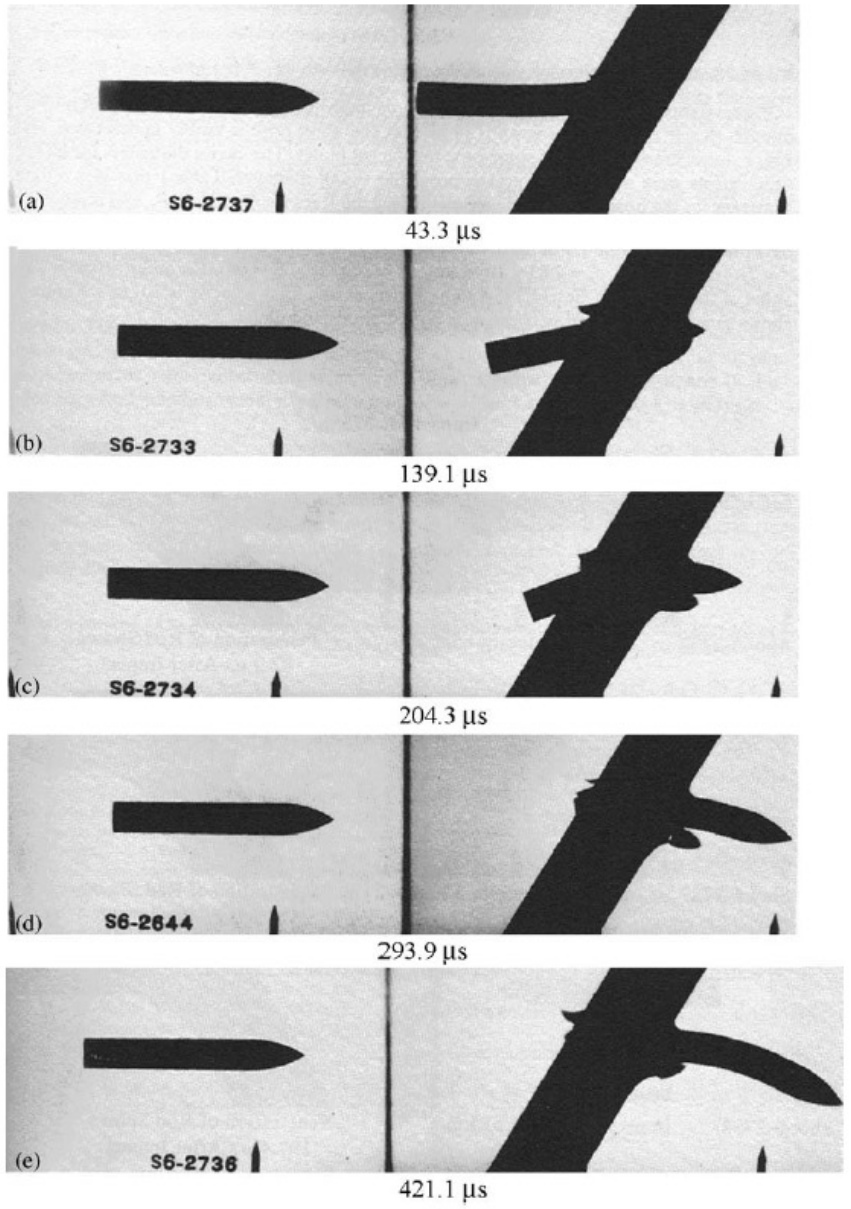
LA-UR-22-XXXXX

Experimental Setup

- 4340 steel ogival nose projectile (8.89 cm long)
- 6061-T651 aluminum target (2.63 cm thick)
- 30° oblique impact
- 400 m/s impact velocity

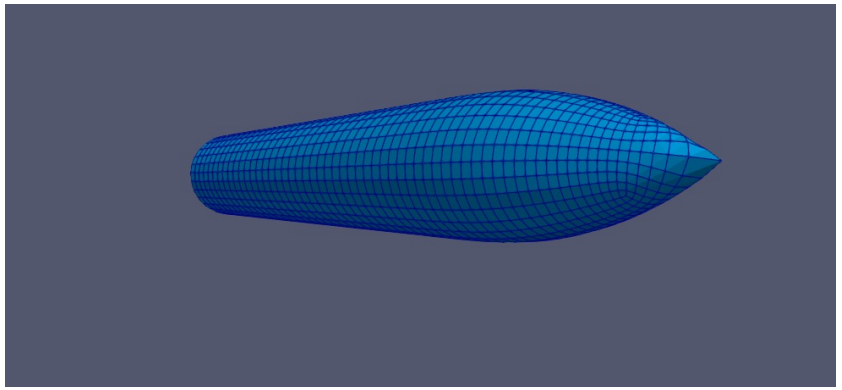


A.J. Piekutowski, M.J. Forrestal, K.L. Poormon, T.L. Warren, Perforation of aluminum plates with ogive-nose steel rods at normal and oblique impacts, *International Journal of Impact Engineering*, Volume 18, Issues 7–8, 1996

FLAG Simulation Setup

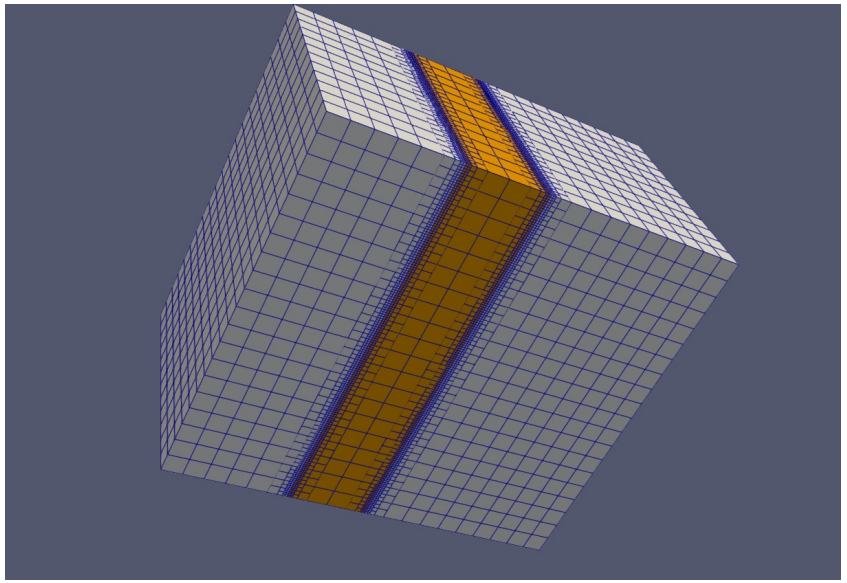
Penetrator

- Conformal mesh, 3-fold symmetry
- Time zero relaxation, then pure Lagrangian

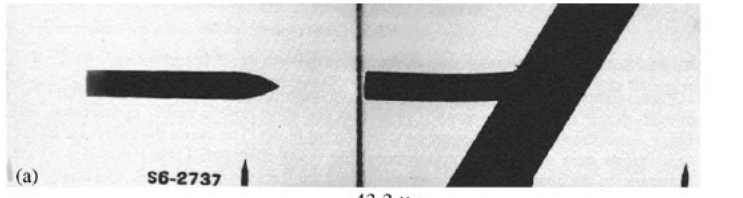


Target

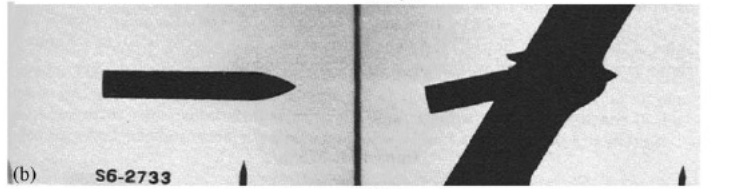
- Rectilinear mesh
- Extended front and back with void (white)
- AMR – refinement at target material boundary
- Pure Eulerian (Lagrangian + remap)



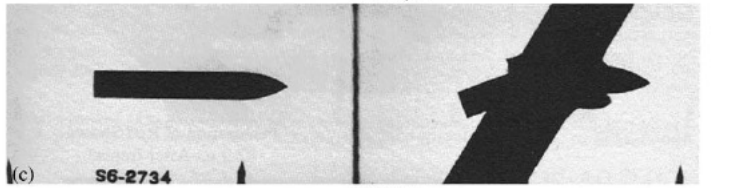
FLAG Simulation Comparison



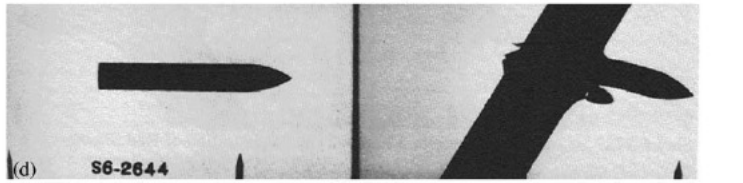
43.3 μs



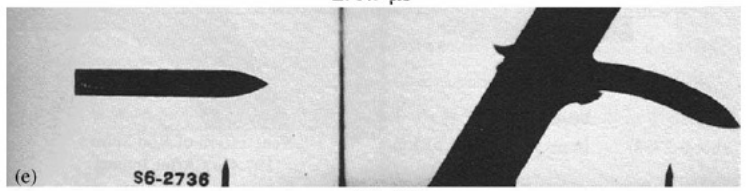
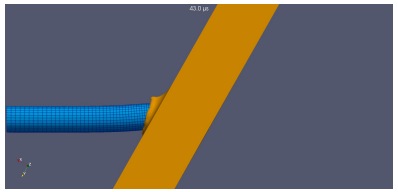
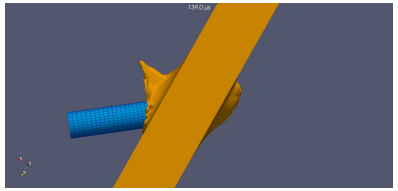
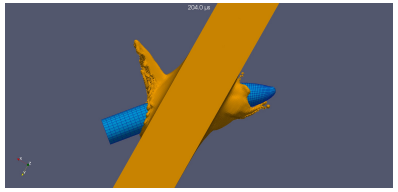
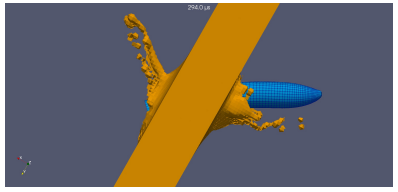
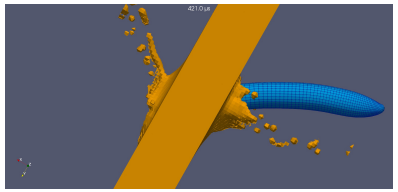
139.1 μs



204.3 μs



293.9 μs



421.1 μs