L-013 US Air Force Life Cycle Management Center

- Flow solver: Kestrel KCFD 12.8

- Spatial discretization: 2nd order finite-volume, cell-centered

- Time integration or iteration method: Time-accurate 2nd order

- Name of committee grids (or "self-prepared"): 2.L.02

- Cases submitted: 2

- Initialization method: Cold start (from freestream)

- Grid topology: Unstructured

- Typical DoF per eqn (mesh points, cells, or unknowns) (Case #): 240M (2.1), 413M (2.2), 475M (2.3), 528M (2.4) and 812M (2.4)

- HRLES model family (e.g., DDES): IDDES

- Underlying RANS model (e.g., SA): SA

- Typical time step normalized by CTU: ~0.001 (1E-4 sec)

- Target wall-normal grid spacing normalized by MAC or y+ value: y+ ~=1

- Aspect ratio range (tangential spacing/wall-normal): <4 (tangential); 1.1 (wall-normal)

- Relevant publications related to solver and/or high-lift applications
  - Nichols, R. H., "A Summary of Turbulence Models in the CREATE-AV *Kestrel* Flow Solvers," AIAA 2019-1342, January 2019.
  - Lofthouse, A. J., "Kestrel KCFD and FUN3D Results for the Fourth High Lift Prediction Workshop," AIAA 2023-0807.