

R-015 JAXA

- Flow solver:
TAS
- Spatial discretization:
Unstructured mixed-elements grid, node-centered finite-volume method
- Time integration or iteration method:
LU-SGS implicit, local time-stepping
- Name of committee grids (or “self-prepared”):
HeldenMesh: 1.R.05, 2.R.01, 3.R.02
Pointwise: 1.R.01, 2.R.03
ANSYS ICEM CFD: 1.R.04
- Cases submitted:
Case 1
Case 2.1, 2.2, 2.3, 2.4
Case 3.1, 3.2, 3.3, 3.4
- Initialization method:
warm start (restart from lower AoA results with rotate velocity vector’s angle)
- Turbulence model:
SA, SA-noft2-R
- Convergence/stopping criteria:
Mean CL appears flat over last 20% of iterations
- Relevant publications related to solver and/or high-lift applications
 - Yasushi Ito, Mitsuhiro Murayama, Yuzuru Yokokawa, Kazuomi Yamamoto, Kentaro Tanaka, and Tohru Hirai, "Wind Tunnel Installation Effects on Japan Aerospace Exploration Agency’s Standard Model," J. of Aircraft, Vol. 59, No. 5, 2022, pp. 1281-1302. doi: 10.2514/1.C036741
 - Mitsuhiro Murayama, Yasushi Ito, Ryutaro Furuya and Kentaro Tanaka, “JAXA’s Results of Fixed Grid RANS Simulations for the Fourth High Lift Prediction Workshop,” AIAA-2022-3743, 2022. doi: 10.2514/6.2022-3743
 - Andrea Sansica, Mitsuhiro Murayama, Yasushi Ito, Atsushi Hashimoto and Ryutaro Furuya, “Contribution to the 7th AIAA CFD Drag Prediction Workshop Using TAS-code and FaSTAR,” AIAA-2023-3397, 2023. doi: 10.2514/6.2023-3397