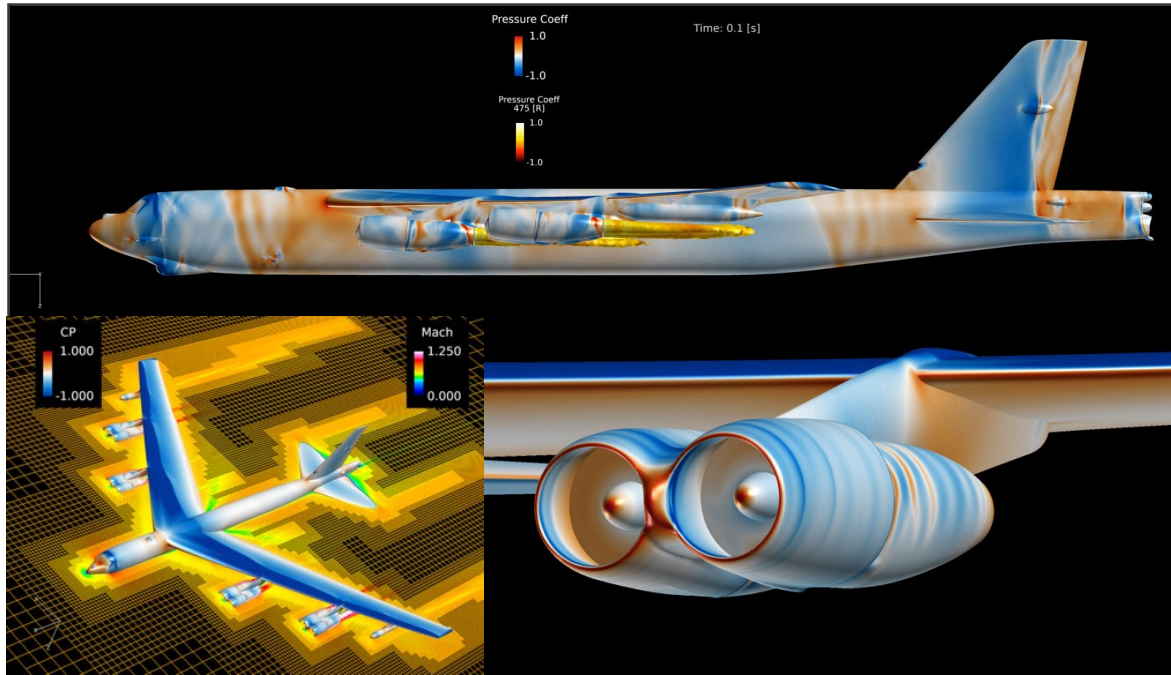


B-52 CERP COMPUTATIONAL MODELS

Success Story - Air Force



B-52 Integrated engine models

PROBLEM

Air Force needed a way to accurately model several different new engine designs for the B-52 program. The ultimate goal is to have the capability to virtually fly the aircraft, with modifications, early in the acquisition process in order to conduct trade-space analysis.

Attribution: Air Force Life Cycle Management Center (AFLCMC)



SOLUTION

The Air Force LCMC is using HPCMP CREATE-AV Kestrel to provide detailed knowledge of complex aerodynamics and aircraft performance. Integrated engine models can dynamically adjust individual throttles. Engine models delivered by original equipment manufacturer (OEMs).



IMPACT

Results:

- Models flow properties (Velocity, Temperature, Pressure, etc.) at all points in discretized space and time
- Integrates forces & moments
- Reduces risk ahead of engine selection, integration, and flight testing