

Gtm T2

Verified delivered configuration · interactive mesh available in [report.html](#)

356 km/h

DASH SPEED

0.58 h

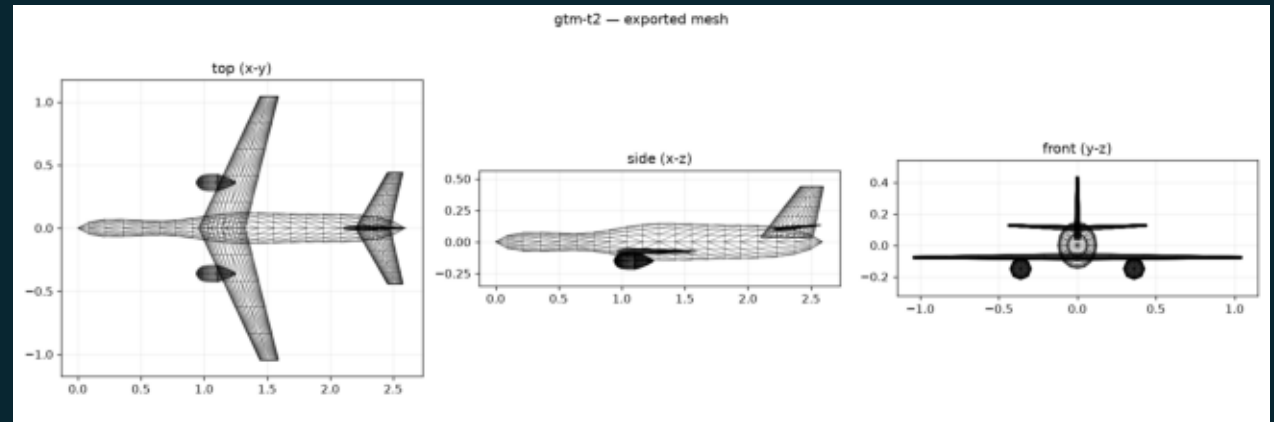
ENDURANCE

0.0 kg

PAYLOAD

26.2 kg

MTOW



Flight-worthiness gate review

● Schema

source=yes; optimized=yes; engine requirement=yes; payload requirement=yes; re

● Geometry truth

read-back=yes; bbox=yes; mesh checks=28

● Packing

fuel-volume margin 0.058 m³; engine/payload clear

● Balance

component-model SM full 0.336; reserve 0.351 MAC

● Pitch trim

tail incidence -5.055° vs spec -5.057°; CM residual 0.0000

● Stall

Vstall 27.677 m/s ≤ 31.0 m/s at CLmax 1.20

● Directional authority

cant-corrected fin volume Vv 0.1163 ≥ 0.02 (source-locked reproduction)

● Structures

+4g failure index -0.882; CL 0.791/0.791; lift closed=yes; mass closed=yes; ti

● Endurance & thrust

0.58 h; cruise/dash thrust ≥ buildup drag

● Reproduction closure honesty

feasible=yes; driver=yes; post-delivery verify=yes; calibration=yes; frozen=ye

● Shape fidelity

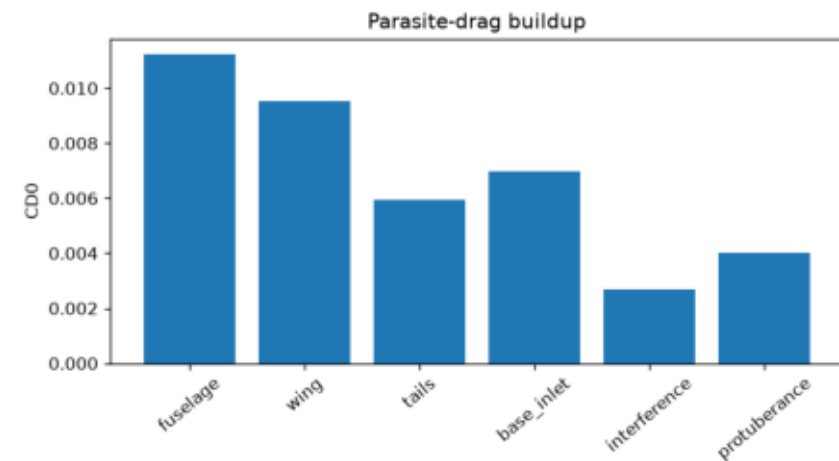
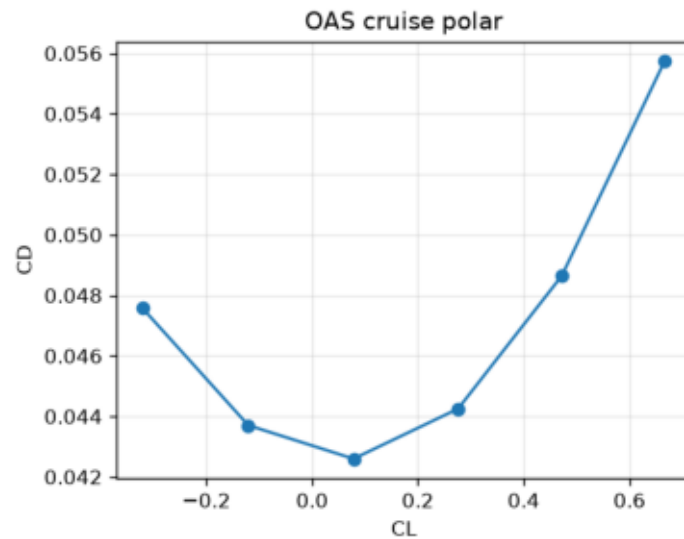
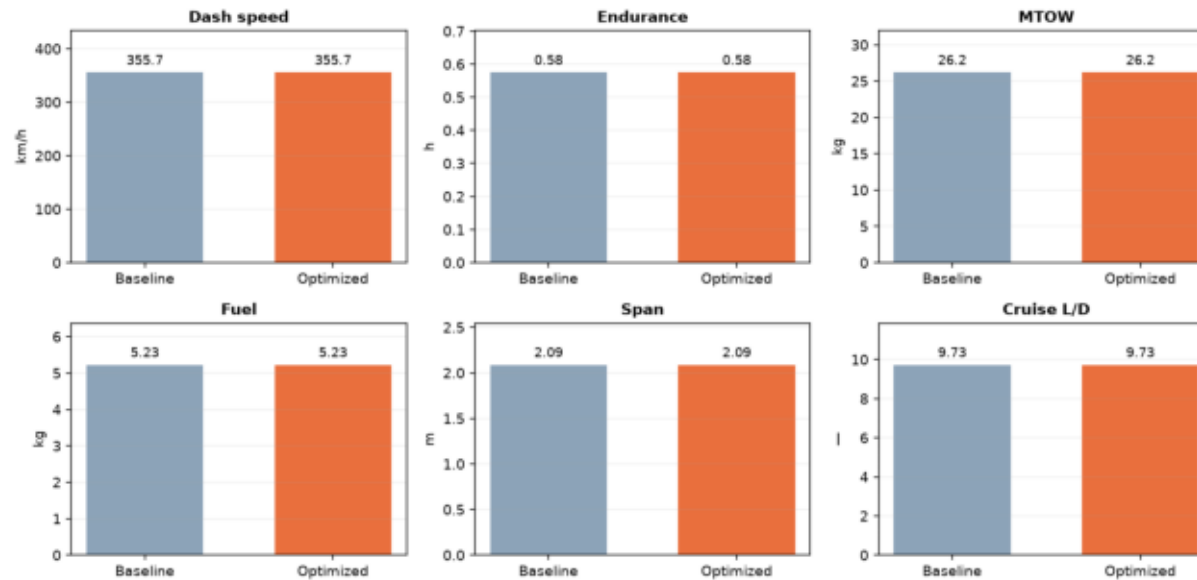
span/L 0.81; root/L 0.15; sweep 25.0°; 0 scored shape departures; 0 total audi

● Cross-checks & traceability

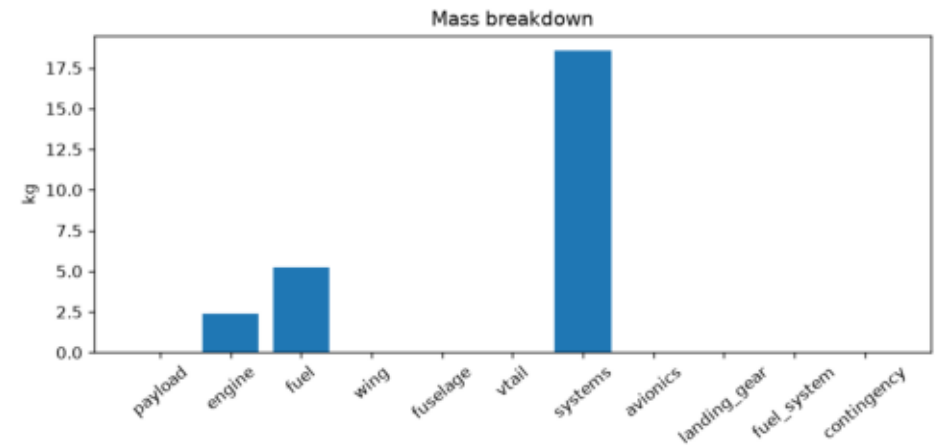
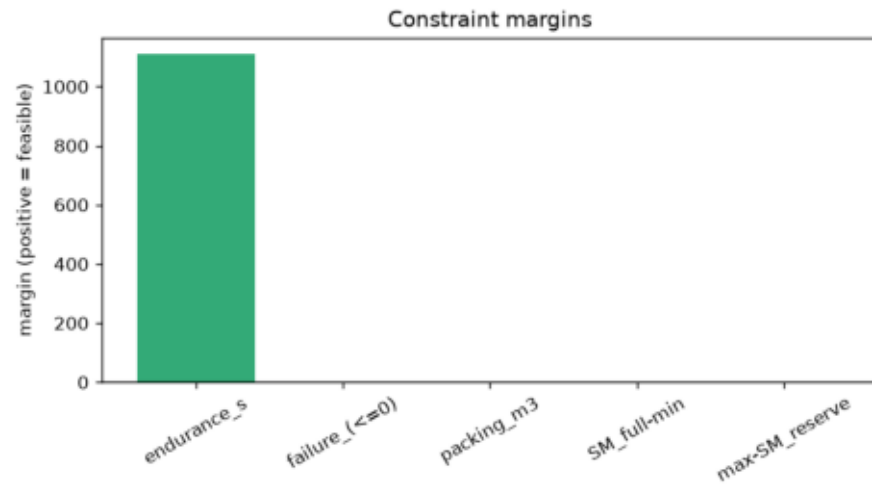
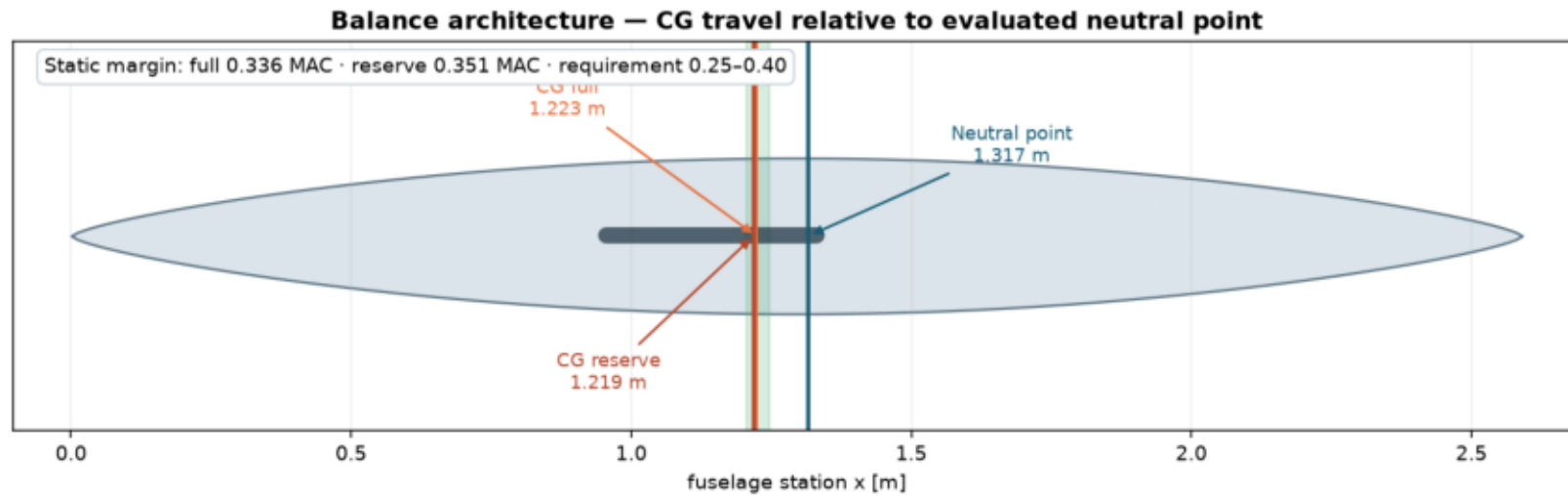
core 13/13; VSPAERO/OAS CL_α ratio 0.949; NP method spread 0.196 MAC (diagnosti

Performance and aerodynamic evidence

Design evolution: source baseline → verified optimum



Balance and structural margins



Verification summary and engineering limits

Validation core: 13/13 · all recorded checks: 15/15

- ✓ k450 tsfc kg per kgf hr
- ✓ breguet round trip
- ✓ isa T sl
- ✓ isa rho sl
- ✓ oas induced drag vs elliptic
- ✓ cantilever deflection identity
- ✓ thin airfoil cm ac
- ✓ fin volume coefficient
- ✓ fin te within body
- ✓ hybrid component provenance
- ✓ wing mass buildup vs oas
- ✓ vspaero vs oas CL
- ✓ elevon cm delta vspaero vs oas

Documented limitations

- Engine thrust-lapse and part-throttle TSFC are assumptions anchored by one static vendor point.
- Stall uses an assumed $CL_{max}=1.20$; no high-lift or nonlinear separation model is present.
- OAS/VSPAERO are lifting-surface models; fins are gated separately by V_v and exported-mesh truth.
- SU2 is a coarse 2-D Euler calibration and must report convergence separately from successful execution.
- TACS and OAS use different wingbox idealizations; their mass/stress ratio is calibration evidence only.

Full interactive evidence, exact stage values, and configuration: [report.html](#)