

STRUCTURAL ANALYSIS AND
DESIGN RECOMMENDATIONS

Aerospace

*Project
Management*



*Mechanical
Engineering*



LAUNCH VEHICLE TRANSPORTER ERECTOR DESIGN AND ANALYSIS

APPROACH

- Assembled dedicated team of five structural analysts as an extension of client's team
- Delivered detailed strength analysis reports and complete FEMs
- Prepared presentation-ready CDR slide decks in client's format

RESULTS

- Airborne components
 - > Performed quasi-static strength analysis and normal modes evaluation of avionics brackets and installation fasteners
- GSE—mobile launch platform
 - > Analyzed mast, base structure, and decoupler booms that support umbilical harnesses for loads from wind, vibration, and gravity
- GSE—transportation and handling
 - > Analyzed transport and hoist equipment

KEY TOOLS & TECHNOLOGIES

- Femap with NX Nastran
- ITAR-compliant, cloud-based, high-performance computing (HPC)
- Mathcad
- Excel

ALTEN TECHNOLOGY