

STRUCTURAL ANALYSIS AND  
DESIGN RECOMMENDATIONS

## Aerospace

Project  
Management



Mechanical  
Engineering



# LAUNCH VEHICLE TRANSPORTER ERECTOR DESIGN AND ANALYSIS

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## 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**