

### Overview:

The ViaSat 11 meter communications Antenna uses a three axis pointing system for motion control of the communications dish. The pointing system is comprised of elevation, azimuth and train axis gear boxes, two gearboxes per axis, for a total of six gear boxes.

### Statement of Work:

- The contractor shall provide mechanical engineering analyses and design necessary to ensure adequate operating margins for elevation, azimuth and train axis geartrains.
- The contractor shall produce industry-standard mechanical drawings of all single and compound gears.
- Optimum selection of material and heat treatment that provides higher ratings and similar or least cost.
- Review of operation conditions to optimize gear tooth modifications such as tip relief, crowning and helical slopes to compensate for shaft deflection and torsion.
- Define quality and heat treat requirements to current AGMA or ISO specifications.
- Re-draft the items in modern format using ProE. Manufacturing drawings to ANSI specification.

### Deliverables:

- Analysis of each gear train showing adequate operating margins for worst-case loading.
- Industry-standard mechanical drawings of all single and compound gears.

Period of Performance: Award of Contract plus 60 days