A leading aerospace and defense OEM required a reliable gearbox solution for use on the U.S. Army’s forward deployed tactical air traffic control system. Designed for transport in a single C-130 military cargo aircraft, the fully autonomous, vehicle-mounted 3-band radar system provides air traffic navigation, integration and coordination. The system is utilized when forces operate in locations where air traffic control infrastructure is nonexistent.

Boston Gear engineers worked with the OEM to develop and test a modified 700 Series speed reducer to meet the application specifications. The gearbox mounts directly to the azimuth control drive motor that positions the radar’s antenna. The Model 724 reducers supplied provide reduced backlash and feature an 18:1 ratio, double-projecting input, military spec paint and an oil sight-glass to aide in field maintenance.

The modular worm gear construction of Boston Gear 700 Series speed reducers is the standard in the industry, with rugged cast iron housings and high-strength bronze worm gears mounted between heavy-duty tapered roller bearings. Large oil reservoirs provide efficient heat dissipation and lubrication for longer operating life.