



National Radio Astronomy Observatory VLBA Antenna Memo Series – No. 87

TRIP REPORT - Kitt Peak Azimuth Drive Wheel Assembly #2 Replacement
9-11 Feb 2012

Prior to this trip, the original #2 azimuth drive wheel assembly was still in place on the Kitt Peak VLBA antenna. As part of the effort to bring all azimuth drive wheel assemblies to the current configuration across the entire VLBA, the wheel assembly was replaced during this trip. Note that the #1 azimuth wheel assembly has already been changed.



Illustration 1: Wheel During Final Alignment

The old wheel assembly was removed and the new assembly was installed without incident. Wheel alignment was performed and the final measurements were within the specified tolerances as shown in the table below.

	<u>Specifications with Tolerances</u>	<u>Measured Values</u>
Conic Radius:	300.00" \pm .25"	300.086"
Drive Coupling TIR:	< .005"	< .003"
Axle Vertical Slope:	93.440° \pm 0.023°	93.442°
Axle Horizontal Angular Error:	< .023°	.013°

After the wheel was replaced, the telescope was rotated around the azimuth axis repeatedly. The wheel rotated smoothly with no popping or grinding sounds.