

National Radio Astronomy Observatory  
Socorro, New Mexico

**VLBA Antenna Memo #52**  
Pie Town Drive #1 Wheel/Bearing Replacement  
May 14-18, 2004

During the April Pie Town antenna maintenance visit various sized metal flakes were found in the grease of the inside azimuth bearing on drive #1. A maintenance team consisting of, Jay Apachito, Steve Aragon, Eric Carlowe, Kelly Greene, and Ramon Gutierrez was scheduled to replace the wheel assembly. Engineers at the VLA were consulted during the wheel change.



| <b>New Wheel</b> | <b>Measured</b> | <b>Specified</b>    |
|------------------|-----------------|---------------------|
| Conic Radius     | 300.123"        | 300.000" +/- .25"   |
| Vertical error   | 93.27'11"       | 93.26'23" +/- 1'24" |
| Horizontal error | 1'12"           | <1'24"              |
| Coupling runout  | 0.002"          | <0.005"             |

The new wheel assembly ran smoothly and meets all specifications.