

National Radio Astronomy Observatory
Socorro, New Mexico
VLBA Antenna Memo #63

Kitt Peak, Arizona. VLBA Maintenance Visit May 16-22, 2006.
Team members consisted of Steve Aragon, Eric Carlowe, Kelly Greene,
Lonnie Guin, Ken Lakies and John Wall. VLBA Site Technicians Ray
McFarlin and Duane Clark assisted in all areas of antenna maintenance.





FRM was given a thorough inspection and the focus flex shaft was replaced. Rotation was modified to operate on the West position feedback motor only. The sub reflector did not need rebalancing. The snow tarp was removed and three 1 inch drain holes were drilled in the center of the sub reflector.

FRM INA BEARING CHECK 50LBS PULL ON EAST MOTOR

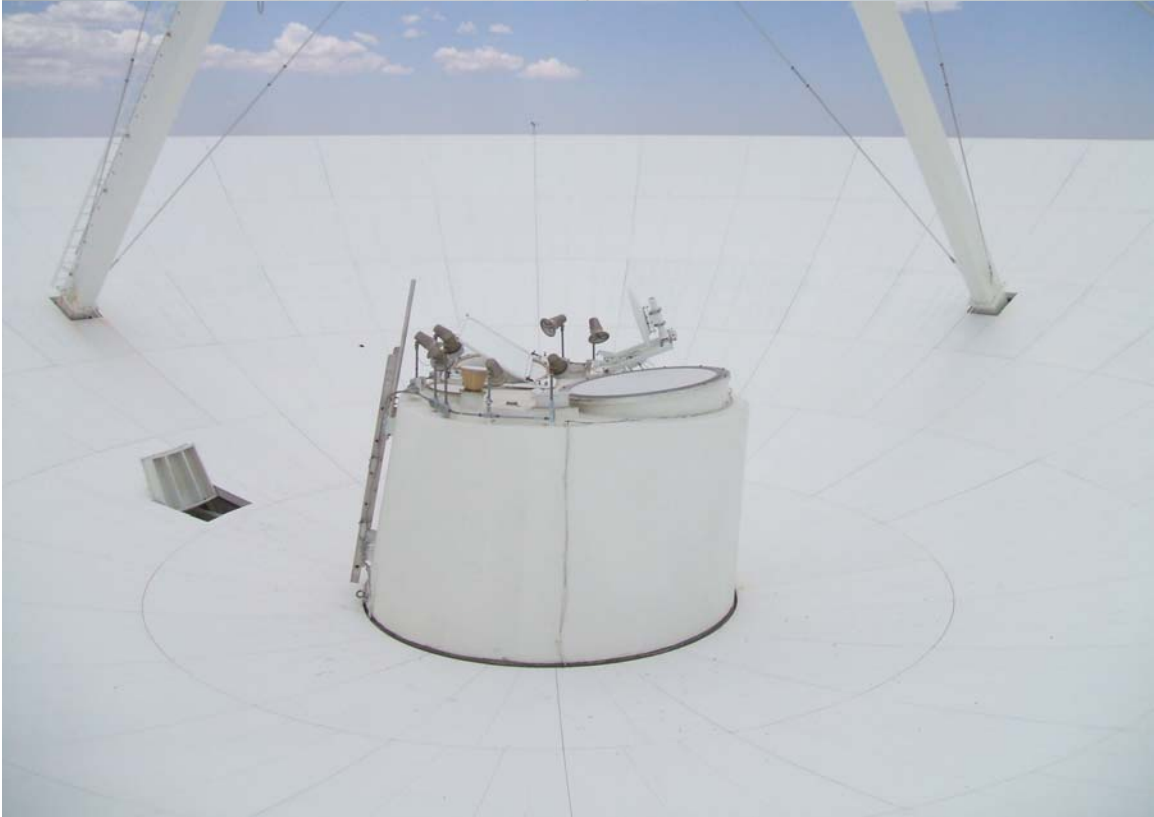
East Travel:	+0.001	West Travel:	-0.001
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FRM INA BEARING CHECK 50LBS PULL ON WEST MOTOR

East Travel:	-0.001	West Travel:	+0.001
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Sub reflector is in excellent condition



Dish panels are in good condition. Feed cone is in good condition.



Dichroic reflector has a small vertical delamination in its center. Dichroic panel did not need replacing. Ellipsoid reflector is in good condition.



Elevation #2 gear box heater thermostat was replaced. New air boxes were installed on all four motors. Azimuth #2 blower motor was replaced.



Synchro and Encoder side elevation cable wraps were repaired. Both sides' elevation ground cables were replaced.



The new Azimuth cable wrap was installed and tested.



Azimuth wheel bearings were inspected, none were replaced.

AZIMUTH BEARING GREASE INSPECTION

	INNER BEARING	OUTER BEARING
D1	Good, a few small flakes.	Good, no metal.
D2	Good, no metal.	Good, no metal.
I1	Good, no metal.	Good, no metal.
I2	Good, no metal.	Good, a few small flakes.
All bearings are very well lubricated.		

ELEVATION BEARING GREASE INSPECTION

Encoder	Good grease with no metal flakes.
Synchro	Good grease with no metal flakes.
All bearings are very well lubricated.	

Pintle bearing is well lubricated with no metal flakes.



Elevation axle has no visible signs of cracks. Paint is in Good condition.



Feed heaters and FE windows are in good condition. Apex paint is in good condition.



Antenna backup structure is in good condition. Paint is in good condition



A new HVAC platform extension was installed.



A four inch crack was repaired above the synchro side elevation axle.



A two inch gap in the pedestal platform grating was repaired.



The Vertex room door was replaced.



A new back up AC was installed for the Pedestal room electronics.



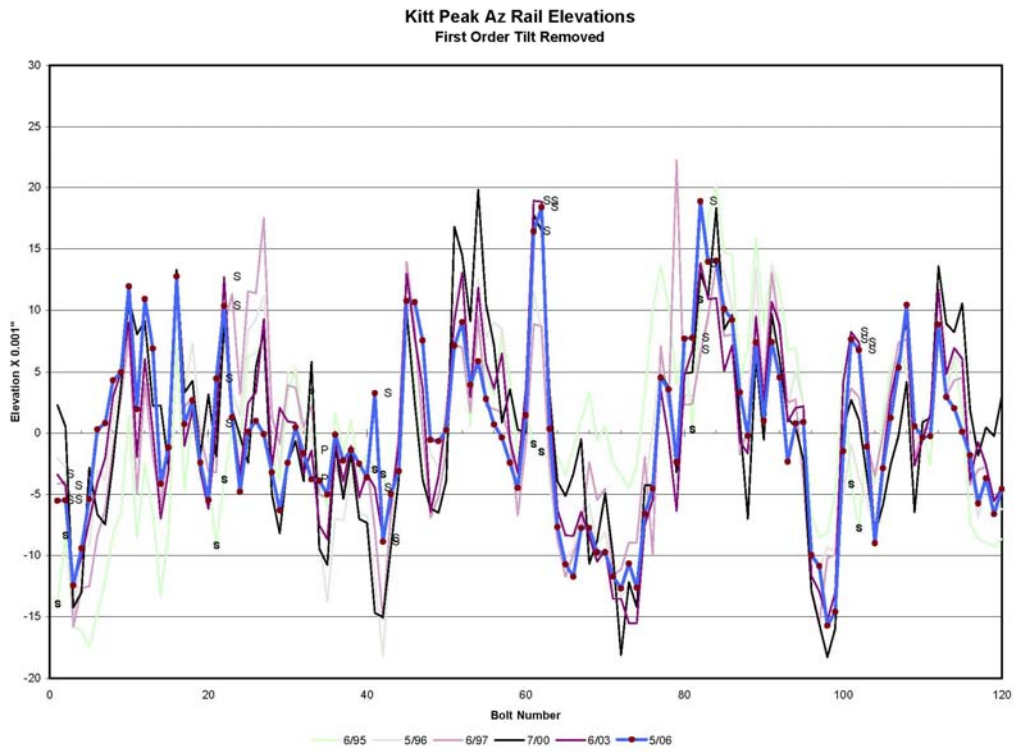
MKIII recorders were replaced by the new MKV recording system. Both MKIII recorders were loaded into the Tiger Team container.



Overall paint on the antenna is in excellent condition with only a few surface rust spots. Notice the Quad leg drain hole.



Kitt Peaks rail and grout is in good condition. Vulchem is beginning to deteriorate and the Site Techs will have to remove it.



Kitt Peak antenna rail elevations.