

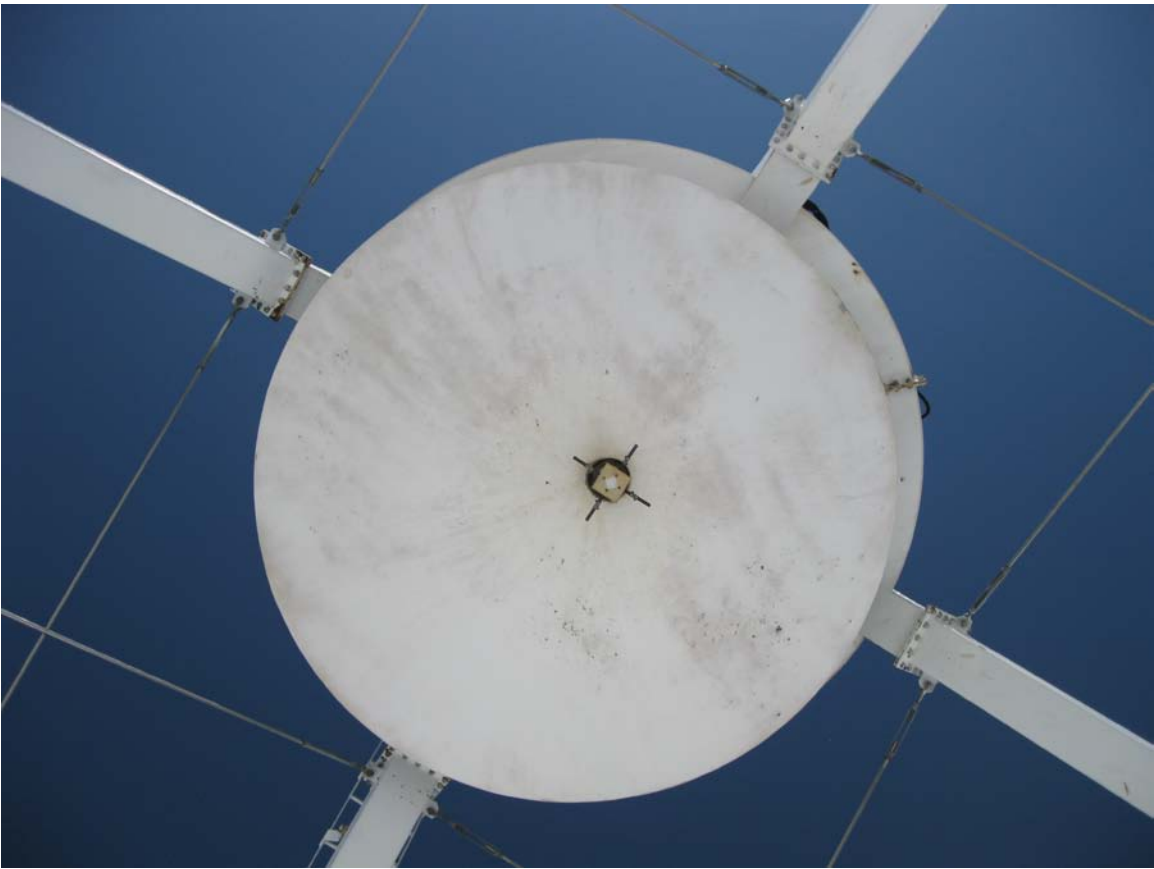
National Radio Astronomy Observatory
Socorro, New Mexico
VLBA Antenna Memo #78

Los Alamos, New Mexico VLBA Maintenance Visit July 14- 16, 2009.
Team members consisted of Eric Carlowe, Ramon Gutierrez, Ken Lakies
and Martin Lopez. VLBA Site Technicians Paul Johnson and Nelson
Atencio assisted in all areas of antenna maintenance.

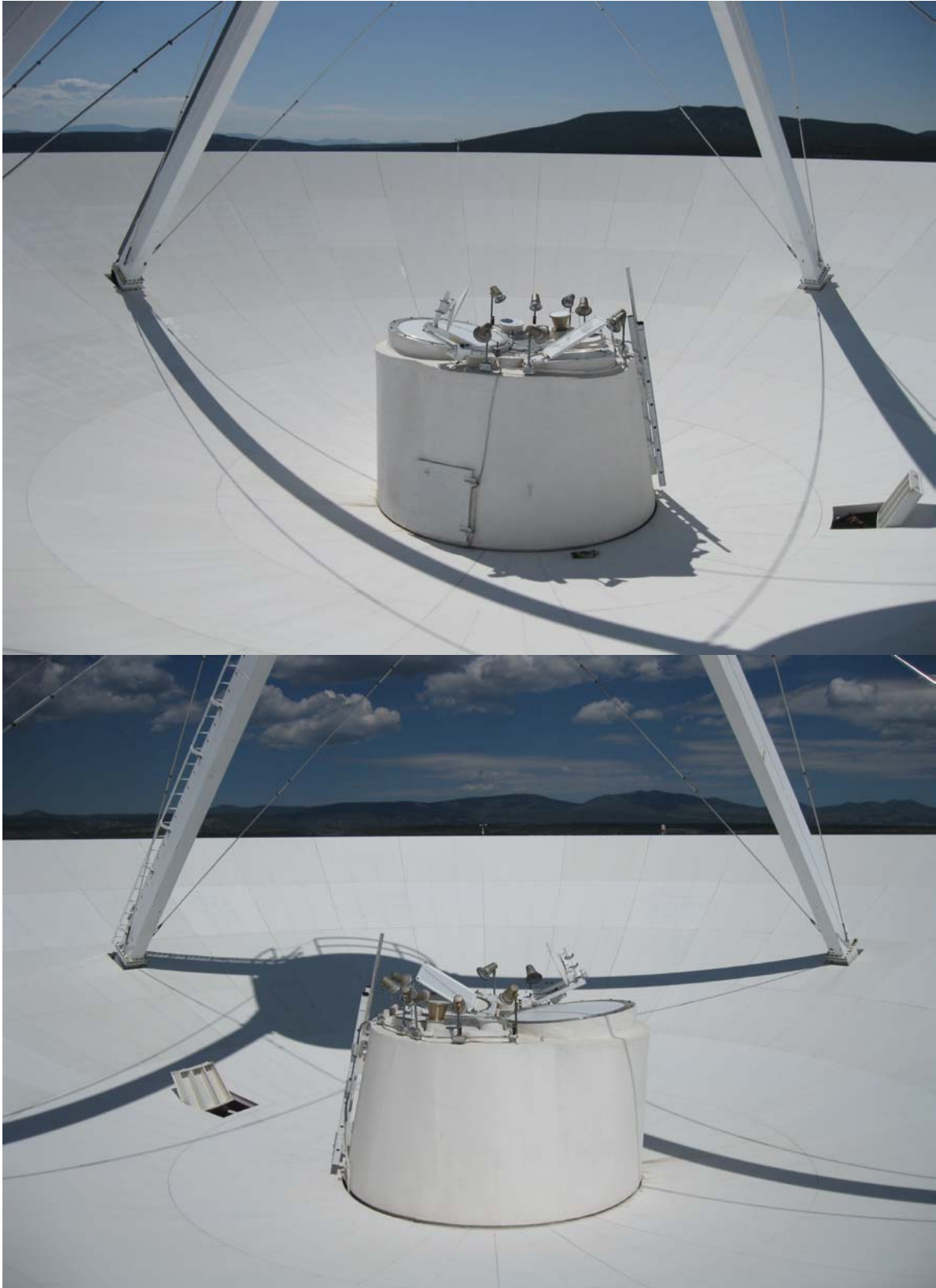




FRM was given a thorough inspection and the focus flex shaft was replaced.



Sub reflector is in good condition.



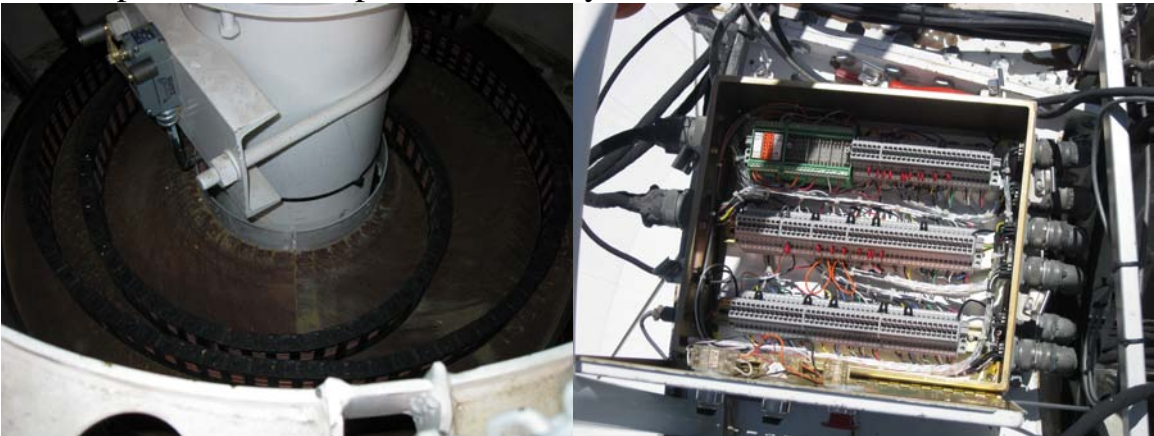
Dish panels are in good condition. The feed cone's elastomeric paint job is holding up well. The feed cone was sealed and painted during the 2005 maintenance trip.



The old Dichroic reflector was delaminating and could not be aligned. The reflector was replaced and the new one aligned.



Azimuth #1 motor was replaced. The Ellipsoid reflector is in good condition. The ellipsoid actuator operates correctly.



The new IF cable wrap is in good condition. FRM apex signal junction box and cables are in good condition.



The antenna leg insulation was reattached and banded in several locations.



AZ and EL bearings were inspected. Both Elevation cable wraps are in good condition.

AZIMUTH BEARING GREASE INSPECTION

	INNER BEARING	OUTER BEARING
D1	New Wheel.	New Wheel.
D2	New Wheel.	New Wheel.
I1	Good, no metal.	Good, no metal.
I2	Good, no metal.	Good, 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.



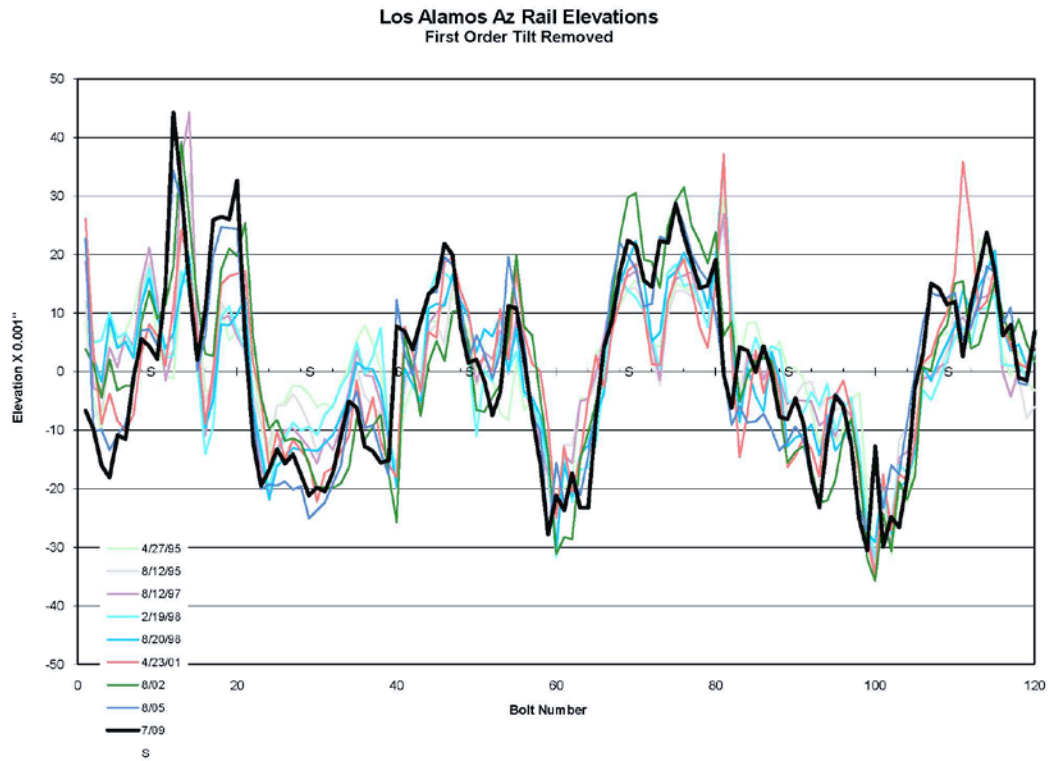
The feed heaters and FE windows are in good condition. Apex paint is in good condition.



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



The Los Alamos rail is in good condition.



Los Alamos Rail Elevations.