

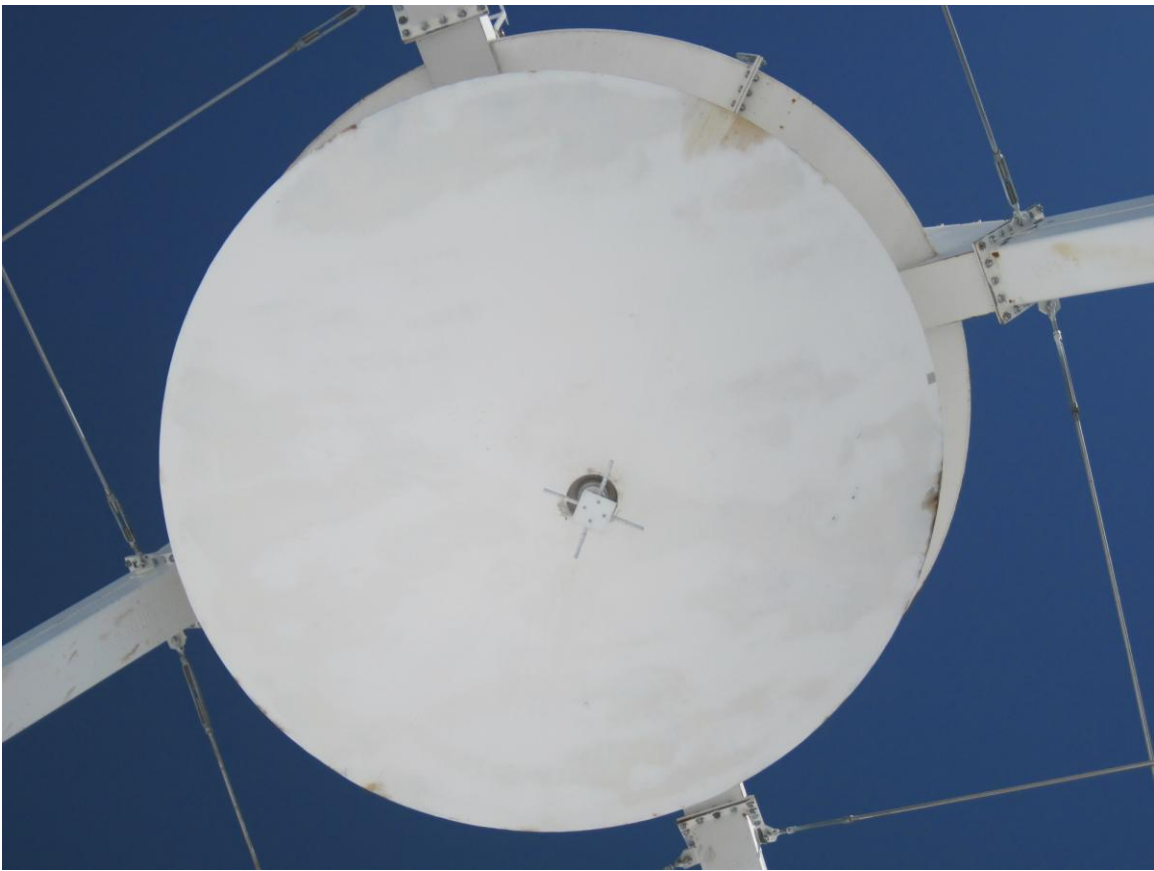
National Radio Astronomy Observatory
Socorro, New Mexico
VLBA Antenna Memo #81

Fort Davis, Texas VLBA Maintenance Visit April 19- April 27, 2010.
Team members consisted of Eric Carlowe, Ramon Gutierrez, Ken Lakies,
Ray McFarlin, Tommy Montoya and Adrian Zamora. VLBA Site
Technicians John Smith and John Jordan assisted in all areas of antenna
maintenance.

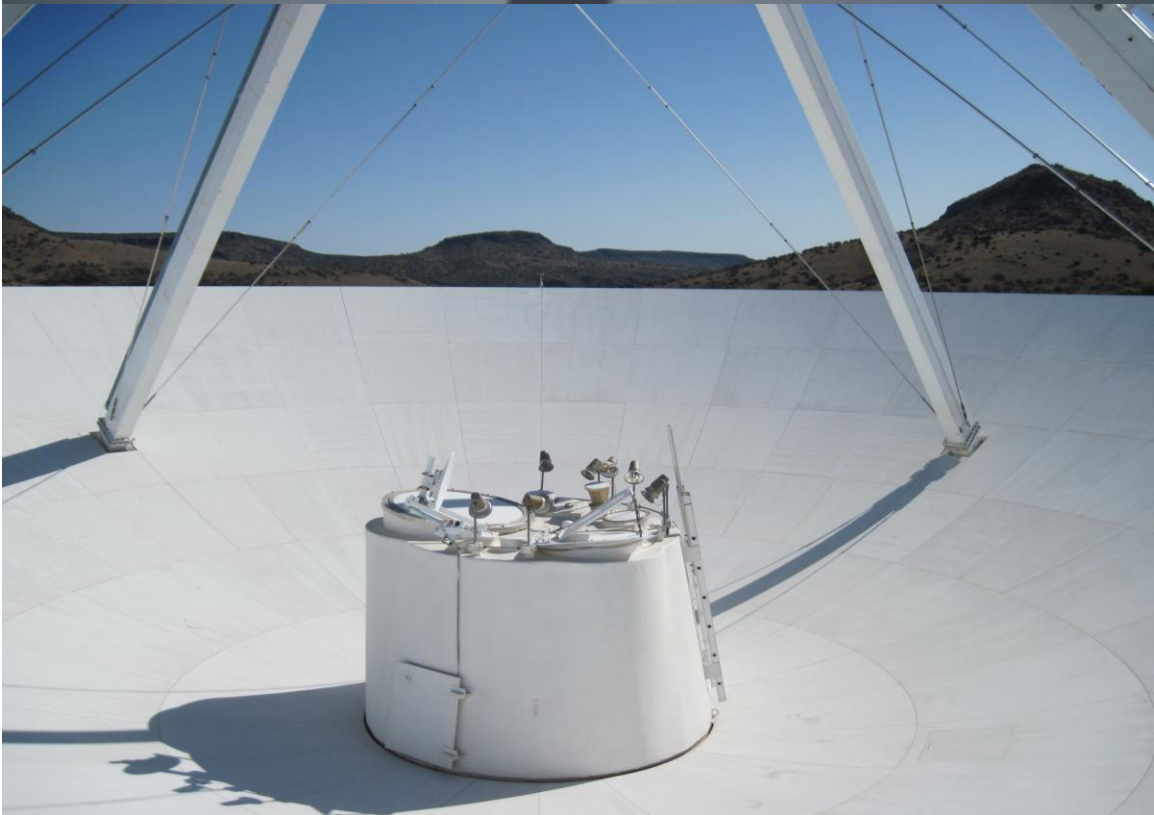
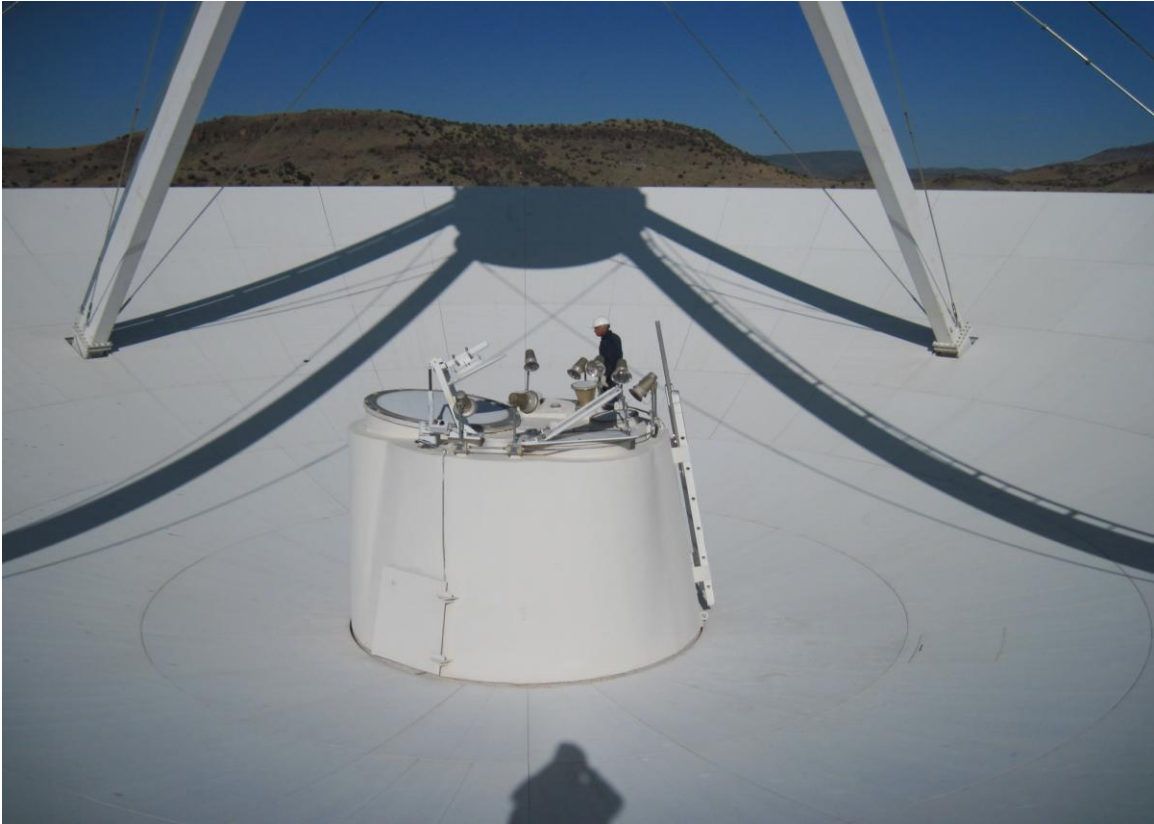




FRM was given a thorough inspection and the focus flex shaft was replaced.



Sub reflector is in good condition.



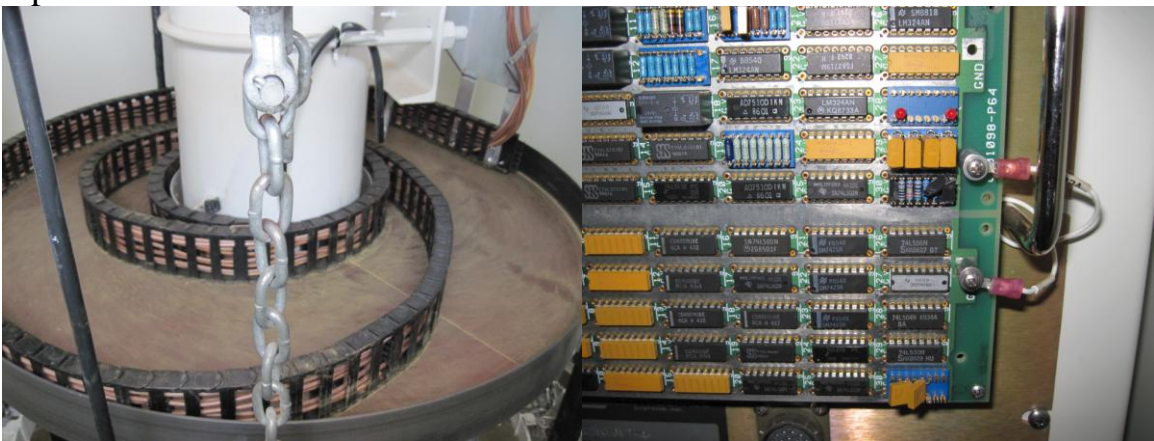
Dish panels are in good condition. The feed cone's elastomeric paint job is holding up well.



The Dichroic reflector is in good condition. The Ellipsoid reflector is in good condition. Ellipsoid actuator manual/e-stop switch was replaced.



Azimuth #1 motor brake heater was repaired. Elevation # 2 motor was replaced.



The new IF cable wrap is holding up very well. The reverse pre-load mod was installed and tested for AZ and EL.



Both Elevation cable wraps are in good condition.



No azimuth idler wheel bearing needed replacing. The new (2/2008) Elevation encoder side bearing grease inspection revealed a lot of metal particles. Site techs will send the NRAO monthly grease samples to monitor.

AZIMUTH BEARING GREASE INSPECTION

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

ELEVATION BEARING GREASE INSPECTION

Encoder	Lots of metal flakes found.
Synchro	Good grease with no metal flakes.
Both 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.

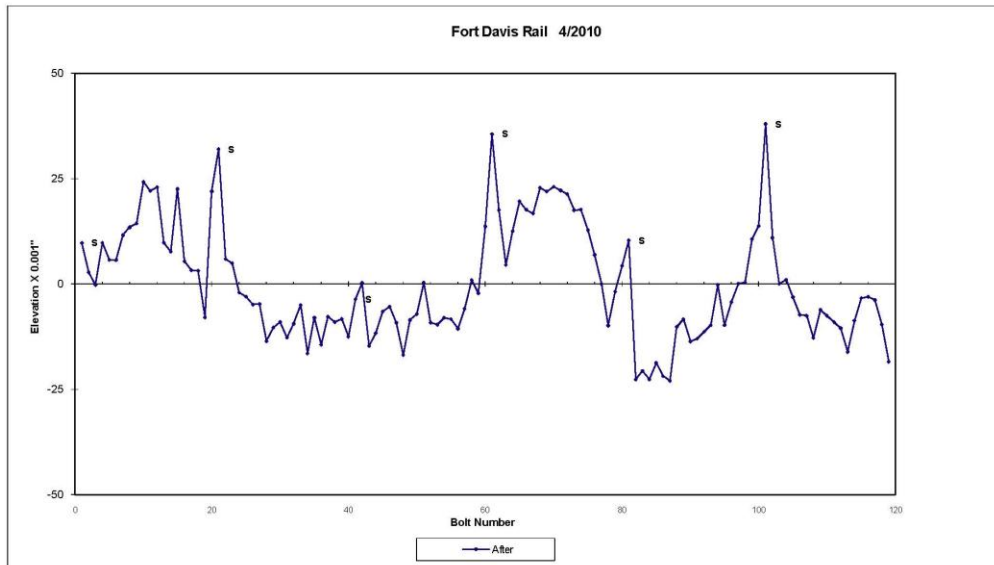


Antenna backup structure is in good condition. Paint is in good condition.



The Fort Davis rail is in good condition.

6/3/2010



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FD Rail Elevations.