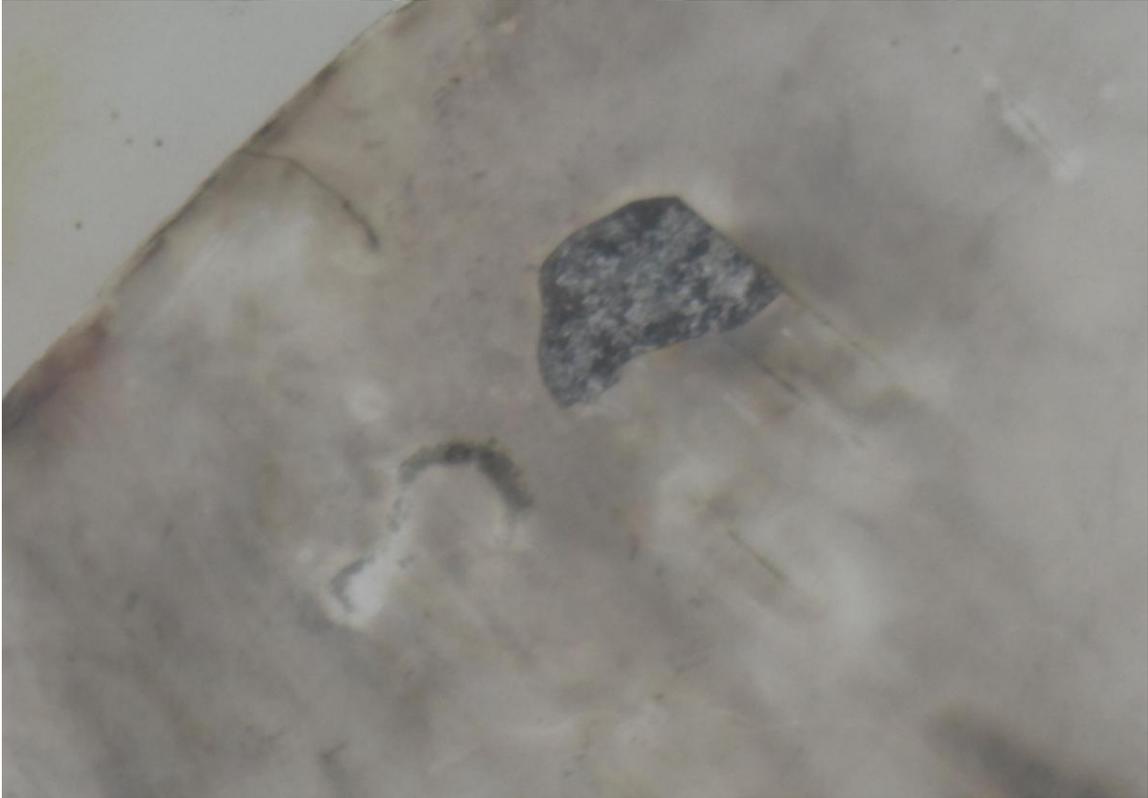


National Radio Astronomy Observatory
Socorro, New Mexico
VLBA Antenna Memo #84

North Liberty, Iowa VLBA Maintenance Visit April 12-18, 2011.
Team members consisted of Sam Abeyta, Eric Carlowe, Ramon Gutierrez,
Ken Lakies, Tommy Montoya and Ray McFarlin. VLBA Site Technicians
Mike Burgert and DJ Beard assisted in all areas of antenna maintenance.





Sub reflector paint is beginning to flake off. FRM was given a thorough inspection. The focus flex was replaced. The FRM is well lubricated.



Dish panels are in good condition. The feed cone's elastomeric paint is holding up well. The feed cone was sealed and painted back in 9/2003.



Dichroic reflector is in good condition. Ellipsoid reflector is in good condition. Dichroic reflector actuator operates correctly.



Azimuth motor #1 and Elevation motor #2 were replaced and tested.



The Vertex room floor was severely rotted and had to be replaced.

AZIMUTH BEARING GREASE INSPECTION

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



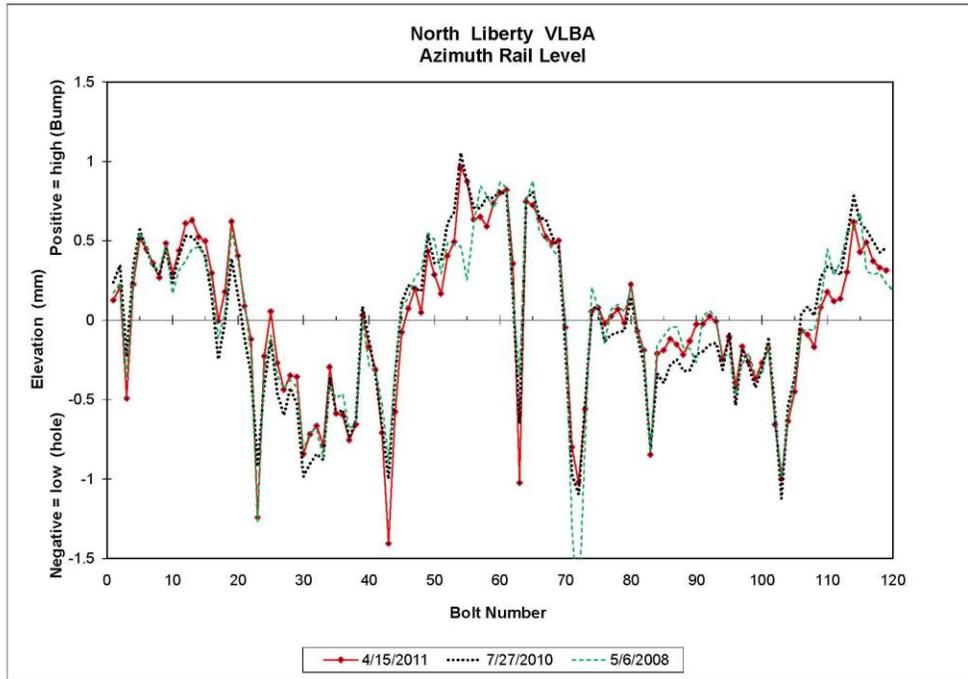
The Antenna needs some “spot painting” or a complete paint job. Paint is flaking off and surface rust is affecting most areas of the Antenna structure.



The C-Band Feed and Fiber installation was completed.



Bob Broilo completed a rail grout and splice bar repair on 7/10. Rail and grout is in great condition. Page 7



North Liberty Rail Elevations.