

GBT Systems Report on Project Coordination for April 2000
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The assembly of the four-beam, dual polarization Q-band receiver was finished the week of April 3. The receiver was cooled down, and initial tests indicate that the receiver temperatures in each of its eight channels averages about 40-45 K, in close agreement with what was predicted.

All but two of the surface panels were installed on the GBT by April 24.

The first round of actuator cable testing was completed on April 12. The 680 cables that failed their insulation resistance test due to wet connectors will be retested by COMSAT as soon as the connectors dry.

The setting of the corners on the GBT surface panels was started on April 11. Approximately half of the corners were set by the end of April. The corner setting is being done by COMSAT personnel and NRAO telescope operators. The project is supervised by Tim Weadon.

The calibration of the zero point offsets on the laser rangefinders was completed, and all 12 ground rangefinders with control panels were installed by April 10. The point-to-point measurements using all 12 ground rangefinders were repeated on April 28. Data recorded during the experiment are being analyzed. Don Wells delivered a structural model of the telescope to Ray Creager so that automatic laser pointing routines could be developed. Joe Brandt completed the monitor and control (M&C) software that was needed for the RPC interface between M&C and laser metrology. The calibration of the surface retroreflectors that are oriented at 25 and 35 degrees within their mounts was completed by telescope operators on April 6.

The design of the cryogenic compressor packages was enhanced to optimize the separation of lubricating oil. One of the six compressors has been modified to incorporate the new enhancements and is currently being tested. Modifications to the other five packages are underway.

The feed for prime focus receiver two (PF Rx 2) was painted.

Major components in the RF section of PF Rx 2 were assembled to test the ability of a Model 1020 refrigerator to cool down the receiver dewar.

Gary Anderson measured the phase centers of prime focus receiver one at five different frequencies near 800 MHz.

A Description of Current Instrumentation and Facilities and the Commissioning Plan were written for the GBT Comprehensive Management and Operations Plan. Updated copies of the GBT Outfitting Schedule and the GBT Commissioning Schedule were included in the plans.