

National Radio Astronomy Observatory  
Charlottesville, VA

September 25, 1984

TO: VLBA MEMBERS  
FROM: BUCK PEERY  
SUBJECT: CONF./SITE MEETING 840919  
PRESENT: BROWN, BRUNDAGE, CAMPBELL, HOGG, KELLERMANN, NAPIER,  
OTY, PORTER, SEBRING, SRAMEK, THOMPSON, WADE, WALKER,  
PEERY

RFI TESTS AT PIE TOWN INDICATE THERE ARE NO PROBLEMS TO WORRY ABOUT AT THIS TIME. THE RFI TRAILER WILL RETURN LATER TO CHECK SOME HIGHER FREQUENCIES. THEY DID NOT HAVE THE RECEIVERS TO MAKE THE HIGH FREQUENCY TESTS WHEN THERE EARLIER. APPROXIMATELY ONE WEEK WILL BE NEEDED TO COMPLETE THE TESTS.

RFI TESTS ARE PROCEEDING AT LOS ALAMOS. SOME RFI DETECTED (OR ASSUMED DETECTED) EARLIER APPEARS TO HAVE BEEN DUE TO PROBLEMS WITH THE MONITORING EQUIPMENT. PRESENT TESTS INDICATE RFI MINIMAL. THERE DOES NOT APPEAR TO BE ANY RFI GENERATED BY EQUIPMENT ON THE LABORATORY SITE. THE MONITORING EQUIPMENT WILL BE MOVED UP THE RIDGE AND THE ANTENNA RAISED IN AN ATTEMPT TO GET A LINE OF SITE TO SANDIA PEAK AND TEST RFI COMING FROM THERE AND THE ALBUQUERQUE AREA. A PORTABLE GENERATOR WILL BE PURCHASED TO OPERATE THE TEST EQUIPMENT WHERE COMMERCIAL POWER IS NOT AVAILABLE. RFI TESTS OFF THE LABORATORY SITE WILL NOT BE REQUIRED. RFI TESTS AT LOS ALAMOS SHOULD BE COMPLETE BY EARLY OCTOBER.

A DISCUSSION OF LOCATING THE KITT PEAK ANTENNA IN THE VALLEY AS OPPOSED TO NEAR THE 12 METER ON THE MOUNTAIN DID NOT RESULT IN A DECISION. THE CONCERN WITH THE MOUNTAIN LOCATION IS WIND AND RFI. THE DISCUSSION INDICATED THERE ARE NO GOOD ANSWERS TO:

- IS THE WIND THAT MUCH DIFFERENT IN THE VALLEY?
- IS THERE A MAJOR DIFFERENCE IN THE RFI IN THE VALLEY?
- WHAT HAPPENS TO THE OPACITY IN THE VALLEY BECAUSE OF MORE ATMOSPHERE TO OBSERVE THRU DUST AND MOISTURE?
- WHAT EFFECT WILL WIND AND THERMAL TURBULANCES HAVE IN THE VALLEY?
- IS THERE AN INVERSION LAYER ABOVE THE VALLEY AND BELOW THE MOUNTAIN TOP?
- IS OPERATION AND MAINTENANCE COMPLICATED BY LOCATING AWAY FROM THE 12 METER?

THE DECISION WAS LEFT OPEN PENDING RFI TESTS ON THE MOUNTAIN AND IN THE VALLEY. THE RFI TESTS ARE SCHEDULED TO START IN LATE OCTOBER. BROWN WILL COLLECT AND ASSEMBLE AS MUCH WIND DATA AS HE CAN LOCATE AND SUBMIT IT FOR REVIEW.

CONCERN WAS EXPRESSED ABOUT POSSIBLE RFI AT THE IOWA (NORTH LIBERTY) SITE AND THE PROBLEMS THAT MAY BE ENCOUNTERED IF RFI TESTING IS PERFORMED THERE IN THE WINTER. IF THE WEATHER IS A PROBLEM THE RFI TEST WILL BE DELAYED UNTIL SPRING. PRELIMINARY DATA ON THE RFI AT NORTH LIBERTY WILL BE COLLECTED. A SEARCH FOR A POSSIBLE ALTERNATE SITE WILL BE INITIATED. HOGG AND WADE WILL VISIT HAWAII IN OCTOBER TO IDENTIFY POSSIBLE ALTERNATE SITES ON THE ISLAND, START WATER VAPOR MEASUREMENTS AT SOME OF THE LOWER ELEVATION SITES, AND REVIEW THE POSSIBILITIES AND RAMIFICATIONS FOR ALTERNATE SITES ON MAUNA KEA WITHIN THE SCIENCE RESERVE OR AT THE MID LEVEL FACILITY.

THE SEARCH CONTINUES FOR AN ALTERNATE SITE TO HAYSTACK.