VLB AFRAY MEMO No. 239

NATIONAL RADIO ASTRONOMY OBSERVATORY Green Bank, West Virginia

June 9, 1983

MEMO TO: C. M. Wade, R. C. Walker, and G. Peery

FROM: K. I. Kellermann

SUBJECT: Site Inspection for Northern New Mexico Antenna

On May 23 I made a general inspection of the area along Interstate 25 between Santa Fe and Tecolote. The eastern part of this region is heavily forested, whereas west of Glorieta Pass, the terrain is more arid. Nearly all of the land near I-25 between Santa Fe and Las Vegas is privately owned. Old US-85 runs parallel to I-25 along most of the route east of Glorieta Pass.

There appears to be ample power distribution, small roads, water, farms, ranches, and Indian villages throughout the area, so that there are many potentially suitable telescope locations, provided one is not too close to I-25. Security may, however, be a problem in this area. In general, a high mesa to the south of I-25 shields most potential sites from a line-ofsight view of Sandia Crest.

One of the most favorable locations inspected is about one mile east of the intersection I-25 and NM-40 (10 miles west of Santa Fe). The area just north of I-25 contains several dozen homes scattered through a hilly region. Power, water, and roads are ample. Sandia Crest is visible from this area. Driving time from Albuquerque is about 1 hour 15 minutes.

Further east is El Rancho Montoso (Bobcat Ranch) and Cononuto which may also be suitable areas and warrant further inspection.

The region around Glorieta Pass is high (7400 ft) but has considerable winter snowfall. Near the Pass is the Glorieta Baptist Conference Center.

From Glorieta Pass NM-50 goes to Pecos (pop. \sim 600). From Pecos NM-63 joins I-25 about 10 miles east of Glorieta Pass near Rowe. There are several areas along NM-50 between Glorieta Pass and Pecos that appear to have power, etc., and which may be suitable. This area is protected from I-25 by hills. Pecos might be a source of unskilled support and simple supplies.

The area from Rowe to Bernal typically has a southern horizon of 3 to 5 degrees. There appears to be no direct line-of-sight to Sandia Crest due to the high mesa to the south.

I also drove down NM-3 as far as Pueblo. This area contains several small Indian villages, a variety of small roads, and ample power distribution. Within the area I covered, Sandia Crest was not visible. It is probably visible further to the south, where the mesa no longer obscures the view. This may, however, be too far south for good (u,v) coverage.

I plan to issue a revised report at some later date when photographs which I took become available.

KIK/bbs

