

National Radio Astronomy Observatory  
Tucson, Arizona

August 27, 1985

MEMORANDUM

TO: D. E. Hogg

FROM: M. A. Gordon *mark*

SUBJECT: Shield for Specular Reflection from the Sun

Paul Rhodes and I have discussed various ways to mount the Goretex Cloth in the apex region of the 12-m telescope to allow astronomers to work closer to the sun and, on occasion, to observe the sun.

Attached are sketches of 2 methods of mounting, both of which should shield the primary surface from 90% of sunlight on axis. In both schemes, the missing piece of Goretex has little effect.

Both schemes require the Goretex sheet to be mounted some 10 inches below the subreflector, at the point where the separation between feed legs is 62 inches. Paul has already mounted eyebolts at these points.

Scheme 1 uses rigid poles, 10 ft long. These poles attach to the eyebolts, sliding through sleeves sewn to the Goretex. On the outside of the feed legs, a zipper closes the material. The poles could be rigid PVC water pipe, or even bamboo. Shock cords would stabilize the material against winds.

Scheme 2 is more elaborate, but may be better in the long run. Here ropes are sewn into the inner section to attach it to the eyebolts. Outboard of the feed legs are pulleys mounted on long threaded bolts. The outer rope fits over this pulley, which minimizes any turning moments. The rope tension is adjusted by screwing the pulleys away from the legs. Shock cord will be needed.

c.: P. Jewell ✓  
J. M. Payne  
P. J. Rhodes

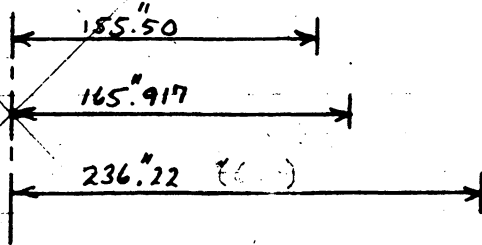
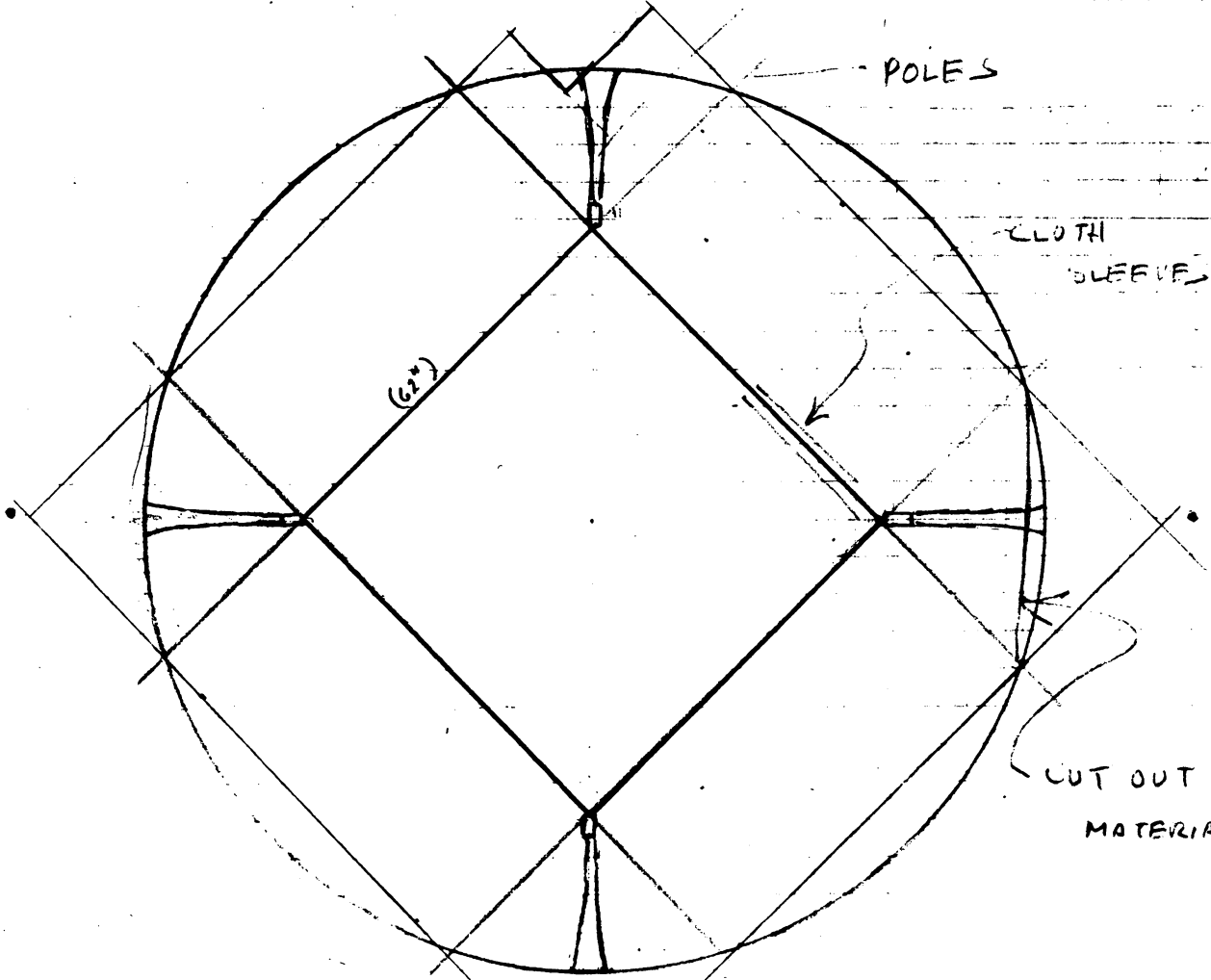
SKETCH 1

ZIPPER CLOSURES

POLES

CLOTH SLEEVE

CUT OUT MATERIAL



SCHEME 2

