12 METER MILLIMETER WAVE TELESCOPE

MEMO No.___

29

National Radio Astronomy Observatory

$\frac{12-M}{\text{May 5, 1981}} \frac{\text{Telescope}}{\text{May 5, 1981}} \frac{\text{Mo. 4}}{\text{Molescope}}$

- 1. Present: (CV) H. Hvatum, Lee King W-Y. Wong, T. R. Riffe
 - (TU) W. G. Horne, J. Payne, M. A. Gordon, P. Rhodes
 - (GB) J. W. Fisher, S. von Hoerner, G. Peery, T. Hamed, R. Fisher
- 2. H. Hvatum: Reviewed the memos published since the last meeting:
 - (a) #22 by D. Ross. The limits to the telescope diameter. Tucson will review the subject and make a recommendation. They already have rough costs of building changes.
 - (b) $\frac{#23 \& #24}$. Meeting notes no comments.
 - (c) $\frac{\#25 \& \#26}{W-Y}$. Front-end (FE) locations proposed by Lee King and W-Y. Wong, following Payne's suggestion in #19.

JMP's first plan would be eventually to repackage FEs to fit either LK or WYW plans (but position B to be used in WYW sketches). This requires a 20" subreflector, but its cost is OK. Existing FEs would, for an interim measure, be mounted above the dish, using an 8" subreflector.

- (d) Memo #27. Encoder accuracy. JMP & WGH seem to be (slowly) approaching an agreement.
- (e) Memo #28. No comments. It was written to help T. Riffe's talks.
- 3. The Surface: $\frac{\text{HH}}{\text{TRR}}$ It is not yet known when ESSCO needs a contract. Will try to go direct to ESSCO but it is agreed we will prepare an RFP.

JWF Has spoken to John V. Evans of MIT about the Lincoln Lab/ESSCO project.

- 4. The Back-Up Structure: WGH has 3 concepts in work, his own, Lee King's and W-Y. Wong's. We hope to see these soon. The following points were discussed.
 - (a) JWF asked that the thermal analysis should include the effects of a change in structure ambient temperature, in addition to the normal LK analysis of the effects of arbitrary temperature distributions across the BU structure.
 - (b) WGH will cost out the building of BU by an outside contractor before deciding where it will be built.
 - (c) There will be a fairly large design/drawing effort. Where is this done? And by whom? HH the task is of high priority, try to do it inside NRAO.
- 5. PERT: HH asked for suggested changes.
- 6. Measuring the Surface: JWF said he would explore the template method first. WYW will help in design. JWF, J. Ralston and S. Smith would meet in Green Bank on May 5 or 6.