

Interoffice

12 METER MILLIMETER WAVE TELESCOPE

MEMO No. 67

NATIONAL RADIO ASTRONOMY OBSERVATORY

TUCSON, ARIZONA

August 6, 1981

To: M. Balister

From: J. M. Payne

Subject: Electronic work to support new surface

Over the past few weeks our plans for the new electronic equipment for the new surface have evolved.

The main points are as follows:

- 1) We do not intend to support frequencies lower than 70 GHz.
- 2) Two old style receivers and two new style receivers may be mounted on the new backup structure simultaneously. Receiver selection is done by a mirror.
- 3) We will immediately start construction of a 200-300 GHz dual channel receiver.
- 4) At a slower pace we will build an image terminated 70-90, 90-115 GHz receiver that will use a 1.4 GHz I.F.
- 5) We need help from Green Bank.
  - a) Design and construction of corner cube and receiver selection mirror (Tony Hamed).
  - b) Design and construction of inductosyn housings and electronics.

Mark Gordon is talking to observers about 1) and I hope you can arrange (5). In the next week or so I shall write specs on 5a.