National Radio Astronomy Observatory
Tucson, Arizona

January 6, 1986

MEMORANDUM

TO: Addressee

FROM: John Payne JP

SUBJECT: High Frequency Observations

We have to prepare quickly for observations at 345 GHz and 300 GHz. Here is the plan of what we hope to do. The high frequency observations will be divided into two groups.

a) 330 GHz - 365 GHz

b) 289 GHz - 304 GHz

The 330 GHz - 365 GHz observations will take place from February 18 - March 1, and the 289 GHz - 304 GHz observations from March 13 - March 22.

Obviously we cannot disturb the 200 - 270 GHz receiver as it is in use on the telescope so the plan is to use the single channel 345 GHz receiver that we used last year.

The configuration for the 330 - 365 GHz will be as follows:

Mixer - #61

LO System - Millitech Gunn & Millitech Quadrupler.

The configuration for the 289 - 304 GHz band will be as follows:

Mixer - #63 with 20 mil Backshort

LO System - Siegal tripler with Millitech Gunn.

In case none of the new LO stuff works we should leave the old wiring and circuitry in the receiver for driving the old quasi optical tripler and the klystron lock box.

A list of critical jobs is attached.

300 - 365 GHz Jobs

Job	Person
Build and test phase lock system.	Antonio and Ernie
Do mechanical design of Quadrupler drives.	John
Do mechanical design of tripler drives.	John
Do mechanical design of Gunn drives.	Antonio
Add wiring to receiver for Gunn lock box.	Jack and Bob
Mechanical design for mounting new tripler, new quadrupler and lenses to diplexer.	John
Assemble everything and test and calibrate.	Jack and John

c: Jack, Bob K., Antonio, Darrel,
Tony Kerr
Peter Siegal
Phil Jewell ✓