

Interoffice

National Radio Astronomy Observatory
Charlottesville, Virginia

September 19, 1983

To: VLBA Members

VLB ARRAY MEMO No. 269

From: M. Balister

Subject: Minutes of the VLBA Electronics Group Meeting - 9/14/83

Attendees: R. Fisher, R. Lacasse, B. Mauzy, B. Brundage, K. Kellermann,
P. Napier, D. Thompson, A. Moffet, H. Hvatum, L. D'Addario,
M. Balister, and R. Bradley.

The desirability of an early investigation of the 0.5-1 GHz synthesizer was discussed. It is necessary to fully determine the impact of the triple/double conversion change to the project cost. Also, we need to make firm statements regarding the tuning step size.

Balister stated that Weinreb is currently looking into the possibilities of obtaining a supplier of HEMT (high electron mobility field effect transistors) devices for use in the higher frequency VLBA front-ends including 22 and 43 GHz. Initial measurements made on these devices look very encouraging and a design goal of 30K at 22 GHz would appear to be realistic.

There was discussion of the block diagram by D'Addario who is currently attempting to develop one showing interfaces and placement of the major parts of the system. This will be submitted to the committee for comments by the next meeting on October 12.

Since the monitor and control of the VLBA is now a separate chapter, there is a need to rework the electronics contribution to the updated report to reflect this change. I will try to get this done before the next meeting.