

National Radio Astronomy Observatory

Charlottesville, Virginia

May 26, 1983

To: VLBA Members

From: M. Balister

Subject: Minutes of VLBA Electronics Group Meeting - May 18, 1983

A meeting of the VLBA Electronics Planning Group was held May 18, 1983. Present were: Campbell, Napier, Fisher, Kellermann, Lacasse, Brundage, Weinreb, Hvatum, Walker, Balister, T. Clark, Moffet, and Rogers.

The leaders of the individual subgroups created at the last VLBA Electronics Planning group meeting gave reports on their work up to the present.

Napier stated that the feed group recommended that the current concept of feed geometry be adopted for the VLBA. It was felt that there was insufficient manpower and time to look into other approaches. Barry Clark had recently suggested a single wideband on axis near field feed as used at Onsala. Napier said that he planned to look into this but thought that the compromises were unacceptable, plus there would be a problem with changing transitions for different frequency bands. Peter suggested that anyone who felt unhappy with the polarization problem that goes along with the proposed feed arrangement make his objections known to the committee.

Weinreb reviewed his front-end cost and construction plan that was circulated to the front-end subgroup. He explained the likely problems completing receivers for 10 frequencies by 1988 and he is looking for some advice on which order to plan receiver construction (VLBA memo #232).

D'Addario reviewed the current state of the monitor and control of the VLBA. Out of the considerable discussion came the proposal to base the current plan and cost on a system similar to that in use by the Owens Valley interferometer. In this plan a computer minus most of the usual peripherals (which tend to be the major maintenance load) will be used as a master controller at the antennas. Software development and changes done at the central site would then be down loaded to the individual antennas. A local CRT display would be available for hardware maintenance.

Balister said he now had sufficient input from the subgroups to circulate the cost breakdown to all members of this committee for their comments.

Next meeting: June 15, 1245 EDT (NOTE TIME CHANGE FOR THIS MEETING ONLY); telephone (203) 797-9062.