National Radio Astronomy Observatory
Charlottesville, Virginia

26 July 1984

To: Computer Coordination Committee

From: R. C. Walker

Subject: July 84 Meeting.

Attendees: Benson, Burns, Clark, Cotton, Ewing, Fort, Moffet, Pearson, Romney, Shaffer, Sieling, Walker, Whitney

The topic of discussion at the meeting was the selection of computers, operating systems, and languages for the Monitor and Control System and for the Correlator. The dates by which the decisions will be needed were discussed in light of the budget slowdown. There was also a general discussion of the possible options.

The Monitor and Control group plans to start programming in mid October so they would like to stick to the current Action Item date of October 1 for the choice of computer, operating system, and language for the antenna computers. Ewing noted that the most important choice as far as the correlator project is concerned is that of the operating system. He would like to make that decision by October 1. In view of these factors, the respective group leaders should distribute VLBA Memos presenting their prefered choices before Oct. 1. We will hold A SPECIAL MEETING OF THE COMPUTER COORDINATION GROUP AT 15:30 EDT ON OCTOBER 2 (Phone number 203 797 9062) to discuss the results. This meeting replaces the regular September meeting that was not originally scheduled because of conflict with the Project Review that has now been postponed. There will be further preliminary discussions at the regular August committee meeting.

Clark reviewed the systems under consideration for the antenna computer and operating system. There are several systems still in contention. He wants to avoid heavily disk dependent operating systems such as UNIX and VMS in the interests of reliability. Systems based on the DEC 11/23, the 68000, and the 8286, with various operating systems are being considered. Whitney encouraged the group to look at Hp systems.

Neither the Monitor and Control Group or the Correlator Group are actively considering alternatives to VAX/VMS for the main control computers. Both groups are comfortable with that choice and it will most likely be made unless someone else pushes hard for an alternative. Given their experience with VAX/VMS on the Block II, Ewing estimated that another choice would cost about a man year.

The language question is still open.   The Correlator Group is considering FORTRAN,   C,   FORTH, and some PASCAL (the later is not in great favor). The Monitor and Control Group is considering FORTRAN, C, and ADA. The current favorite seems to be a mix of FORTRAN and C (which can be mixed at the subroutine level under VMS), although there is some concern that C under VMS has not been used in a large, real time system before and may have bugs. Burns promised to try to find someone with experience in this area to consult. ADA also elicited concern over the quality of the implementations available because it is new.   The heavy support of the DOD should preclude such problems but progress has been slow so far despite that support.   There is general agreement that in the area of computers, operating systems, and languages, we should not be an experimental or test site.

Come to the next meeting on Aug 21 for more.