Minutes of the August 5, 1982 VLBA Computer Meeting

— R. Burns

The meeting was held by teleconference and was attended by:

        NRAO (CV)   — H. Hvatum
                      R. Burns
                      C. Walker
                      B. Cotton

        GODDARD   — N. Vandenberg

        CIT   — T. Pearson
                      M. Ewing

        NRAO (VLA) — R. Ekers
                      G. Hunt

        SAO   — M. Reid

Meeting dates and times were discussed and a preliminary agenda for 1982 given.

        Sept. 2 — 15:30 EST
        Oct. 7 — 15:30 EST
        Nov. 4 — 15:30 EST
        Dec. 9 — 15:30 EST

Four main areas of processing were discussed:

        (1) Array & Element Control
        (2) Post Correlator or Fringe Processing
        (3) Post Processing (AIPS, etc.)
        (4) General Bookkeeping

It was felt that there should be some subgroups to deal with these various areas. It was not clear whether the subgroups should be formal working groups (somewhat fixed) or informal, such as simply asking various people to look into things on an as needed basis. This was left for now.

(1) <u>Array & Element Control</u>. Specifications for array and element control depend heavily on philosophy of operations. This involves questions as to whether the array can operate with the communications down, whether single dish pointing tests will require the use of the array control computer, and many others. Nancy Vandenberg has agreed to prepare a first go-around at the operations and control specifications.

As a side comment, it was suggested that Bob Burns contact Hugh Aller at Michigan to see what special problems they encountered in remote antenna control. Some felt the VLA experience makes this redundant; he will pursue it to be sure.

(2) <u>Post Correlator or Fringe Processing</u>. It is likely that the correlator controller will be intelligent and perform a number of processing functions. Bob Burns suggested we assume a dumb correlator and worry later where the interface between the correlator and fringe processing will be. As the correlator design evolves, the early fringe processing functions will probably move into the correlator. It is important to keep the computer and correlator groups in sync. Martin Ewing's continued presence would help here.

(3) <u>Post Processing (AIPS, etc.)</u>. Post processing seems the clearest to handle because of its similarity to the VLA and the AIPS work. Not much was discussed.

(4) <u>General Bookkeeping</u>. Both Martin Ewing and Nancy Vandenberg mentioned the existence of this area, the need to keep proper bookkeeping on an experiment from the time it is scheduled to the time the tapes are released. This involves some kinds of coordination that do not seem to be required in the VLA, at least not in the same way. This area will have to be better outlined, but such was not set in motion in this meeting.

It was decided to develop a block diagram of the processing for each of several observations. Although four categories were discussed in the meeting, I have since combined it to three as follows:

1) continuum
2) spectral line
3) astrometry.

These differ in observing strategy and processing. John Benson will develop the processing steps for 1). Mark Reid will pursue 2). Although Bill Cotton volunteered for 3), after the meeting he and Craig Walker felt someone from Goddard would be better. Since Nancy Vandenberg is already writing something, I asked Dave Shaffer and he agreed. Most of these will not be complete until the October 7 meeting.

8/13/82