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:  VLBA CORRELATOR MEMORANDUM                 NO. VC 013  :
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To: Hein/ VLBA Correlator Group/ Coord. Comm.   Date: Jan 24, 1984

From: Martin S. Ewing

Subject: Decisions that will have to be made

In response to your query, here is a partial list of thorny issues that will probably have to be resolved by NRAO management in consultation with the scientific committee.

1.   Are 64 Mb/s channels required?   48 Mb/s?   32 Mb/s? 24 Mb/s? I.e., is it acceptable to define the maximum bit (or sample) rate to be the same as the maximum rate supported by a correlator channel?

2.   Are 16 subchannels enough?

3.   Is data transparency required in recording and playback?

4.   In operation, how many playback systems per antenna must be provided to achieve an acceptably low downtime due to tape changing?

5.   What is the set of approved programming languages? Approved computer types?   Microcomputer types? Array processor types (if any)?

6.   What documentation standards must be met in hardware and software?

7.   Should new VLBA antennas be built immediately adjacent to the existing dishes at Haystack and OVRO, or should either existing facility be integrated with the Array?

In many or most cases, you will have to get cost estimates from the design groups involved. I haven't got the relevant estimates yet for the correlator, but I suppose you'll have to lean on us all.

(To be continued)