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August 13, 1986

To: VLBA Operations Group

From: C. Bignell

Subject: Summary of the August 13 VLBA Operations Group Meeting

Attendants: J. Benson, C. Bignell, J. Campbell, R. Escoffier,  
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### Mark II Recorders

The investigation into the possibility of modifying a "new" video recorder is progressing reasonably well. In fact all necessary modifications to the recorder have been successful except that necessary for writing a tape. A little more development work in this area is still needed. A very preliminary cost estimate for the recorder and the parts for the current modification is about \$500 per recorder. The current initial guess in the amount of technician manpower to carry out the modifications is very approximately 4 hours per recorder.

There is some uncertainty and concern about the evolution of these "new" recorders and the future modifiability of them using the current design. Although it is felt that changes to recorder design are probably going to be cosmetic there is no guarantee that "major changes (those requiring a new design change for the modification)" will not occur. This implies that there is some need to purchase the recorders probably within the next 6 months if NRAO is to go ahead with this scheme.

This also raises the question of communicating the results of these investigations to the VLBI consortium (to honor NRAO's commitment in this area) and the European Network such that they can act appropriately. Furthermore a concern was raised over who would make the required recorder modifications for the Consortium. Although this could not be answered at the moment it was decided that a recipe for the required mods could be generated and that a report on this investigation should be produced and distributed to the VLBI Consortium and the European Network as soon as is possible. To that end the following targets dates were set:

September 15	Completion of all design work and final cost estimates.
October 15	Completion of a report on the design and recipe for the modifications.
October 30	Distribution of the report to the VLBI Consortium and European Network.

The number of Mark II recorders required for operating the early antennas was discussed. It was decided that a reasonable number was 20 which would allow using 6 recorders for 24 hour continuous operations on the first three antennas and three recorders for 12 hours continuous operation on 6 antennas

with two spares. Use of the VLBA recorders will also occur however the amount of observing time using the Mark IIIa format will probably depend on available correlator processing time and the number of antennas outfitted with Mark IIIa recorders. It was noted that the Charlottesville Mark II correlator recorders will need to be replaced within the next year (5 recorders are required).

#### Mark II Formatters

The availability of Mark II formatters is still rumored but none are in hand. JPL has promised NRAO 2 or 3 which will become available this fall. There is one formatter which will become available when the IQWA site comes on line. If others are needed they could be fabricated or possibly borrowed from other locations. Ken Kellerman has the responsibility for locating and acquiring them. He will plan to have the JPL formatters in hand by January 1 1987 if at all possible.