

# VLBA ACQUISITION MEMO #166

30 August 1989

To: VLBA Data Acquisition Group

From: George Peck

Subject: Minutes of Ad Hoc Meeting Concerning Thin Tape for VLBA

Date: August 24, 1989

Attendees: Alan Rogers - Haystack  
Hans Hinteregger - Haystack  
Peter Napier - NRAO  
Ken Stetten - NRAO  
George Peck - NRAO  
Dick Thompson - NRAO  
Jon Romney - NRAO

The meeting was called to discuss the purchase of tape for the VLBA. Main topics for discussion were: what needs to be done about purchasing tape for the VLBA, how much money is involved, what time scale is involved, and who will take action.

First, both short term and long term goals were discussed. A short term goal is to prove tape recorder performance with a tape as close as possible to the one which we will finally use. Also, we would like to have some test results ready by next August for presentation to the special session on VLBI recording systems at the General Assembly of URSI in Prague. This could help boost confidence in our system within the community, and encourage them to adopt our system. In the long term, we wish to purchase a large amount of tape around January, 1991, so that we can use it at the VLBA processor when it comes on line in June, 1991.

To fulfill the short term goal, the NRAO will purchase an initial quantity of D1 type tape (about 20 to 100 reels) so that we can get experience using the tape, and evaluate it for general use in the VLBA. Haystack has agreed that one of the playback recorders at their correlator can be dedicated to playing back 13 micron D1 equivalent tapes. It is still unknown whether or not Haystack can play back the tapes at an increased bit density of 56 K bits per inch. Tests will be done concerning interchangeability, headstack wear, tracking, ability of the tape to withstand environmental stresses, and other items. We hope that this initial purchase of D1 equivalent tape will lead to our confidence that we can purchase a larger amount of the same tape in January, 1991. The possibility of using metal particle tape was discussed, but Hans pointed out that a redesign of the headstack would be necessary in order to properly drive that tape.

In April, 1987, Hans was quoted a price by Sony of \$800 plus or minus 20% for 27K feet of tape on a 16" reel. This would translate to about \$600 for 20K feet of tape on a 14" reel. It is possible that some set up costs could be involved. 1989 costs are still unknown.

George and Ken will develop an RFP, to be ready about 1 month from now, for the purchase of an initial quantity of 20 to 100 D1 equivalent tapes. We will attempt to make personal contacts at all of the companies, so that they have some understanding of our needs prior to receiving the RFP.

Haystack and the NRAO (Charottesvile and Socorro) will both be involved in tests of the new tape. Alan will make a list of recommended tests. NRAO will dedicate one VLBA site to using the D1 equivalent tapes, so that real Astronomy can be done with these tapes.