VLBA Acquisition Memo # 66

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

HAYSTACK OBSERVATORY

WESTFORD, MASSACHUSETTS 01886

1Ø July 1986

Area Code 617

692-4765

To: VLBA Data Acquisition/Recorder Group

From: Alan E.E. Rogers

Subject: Minutes of the VLBA Recorder/Data Acquisition Telecon Held 9 July 1986 at 13ØØ EDT

Attendees:
Bill Petrachenko - Haystack
John Webber - Haystack
Hans Hinteregger - Haystack
Alan Rogers - Haystack
Jon Romney - NRAO
Ray Escoffier - NRAO

The meeting started with some questions from Jon Romney as follows:

A] Fan-in/Fan-out - What are the capabilities in the formatter?

The Fan-in (number of channels on one recorder track) and Fan-out (number of tracks assigned to one baseband channel) capabilities of the formatter are 4:1. Jim Levine has summarized the formatter fan-in and fan-out modes on Drawing #54202.

B] What are the quantities of DAS and DPS units to be fabricated?

18 DAS units are planned in addition to the 2 "prototype" DAS units now being built for Pie Town.

19 DPS units are planned in addition to the prototype DPS now being designed at Haystack. (Owing to an oversight in the present Haystack contract for a prototype DPS there is no recorder in the budget so that an additional recorder is also needed for the prototype DPS.)

2 DAS units and 2 DPS units are planned as spares bringing the total number of DAS units to 11 and the total number of DPS units to 22.

The meeting concluded with a summary of the high density recording status as follows:

A] MKIIIA Experience

The experience with MKIIIA 4Ø-micron track width recording is good. At present, Haystack has 3 recorders operating in the field at Westford, Fairbanks, and Mojave and 3 more on the processor. Few problems have been encountered. Heads only need to be cleaned at each tape change and not between passes.

B] VLBA Recorder

A 34-micron track width will be used for the VLBA recorder - at least initially. At present the best tape candidate is T160 from 3M. Limited laboratory tests of this thin tape have shown no problems. It is thought to be too early to place an order for any significant quantities of tape especially since new higher output tape may become available in the one-inch wide form.

The meeting concluded with the realization that money for the significant quantities of tape, which will be required when the VLBA processor is completed and up to full speed, may not be in the budget. There is no money in either the data acquisition or correlator budgets for tape. (If the VLBA records two tapes per day at each of ten sites and the tape turn-around time is thirty days then six hundred tapes are needed at a cost of $500-$800 each.)