

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
HAYSTACK OBSERVATORY
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11 September 1986

Area Code 617
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To: VLBA Data Acquisition and Playback Group
From: Alan E.E. Rogers
Subject: Minutes of the VLBA Data Acquisition and Playback Group Telecon
Held 10 September 1986 at 1300 EST

Attendees: Jon Romney - NRAO
Craig Walker - NRAO
Hans Hinteregger - Haystack
Alan Rogers - Haystack
John Webber - Haystack

The meeting started with a brief status report and continued with a question and answer session.

Status Report:

DAR #1

Data acquisition rack number one is now running with two I.F. distributors, two baseband converters, 5 MHz distributor, 32 MHz synthesizer and sampler. A number of tests have been performed and no problems have been encountered, however, there may be some changes that should be implemented in DAR #2 to make the rack wiring easier to install. Two more baseband converters are in final assembly.

The formatter is coming along but probably will not be complete until the end of the year. Ed Nesman has joined the team to help Jim Levine with the decoder/data buffer.

REC #1

The recorder rack is now being assembled. Roger Cappallo has joined the team to write the firmware for the controller.

Question/Answer Summary

Romney: What radiometry is provided in the DAR?

Rogers: The 8751 microprocessor in the I.F. distributor and baseband converters performs various radiometric processing tasks as described in Acquisition Memo #65.

Romney: What are the prospects for further headstack development?

Webber/Hinteregger/Rogers: New High coercivity tape has higher SNR (≈ 10 dB) and would support both narrower tracks and higher longitudinal density. The high coercivity however, requires a different gap bar to achieve the higher flux

levels needed for recording. We are asking NRAO to consider further development but are reasonably confident that VLBA specs can be met with the existing 40-micron headstacks, 0.6 mil tape, 16 inch reels, and a modest increase in longitudinal density.

Rogers: What computer will be used for maintenance mode at the VLBA sites? Are device screens being written?

Romney: Probably the station computer.

Rogers: In this case we would like to request the loan of a station computer at Haystack for hardware checkout. At present, we are using a Radio Shack Model 100 operating at 300 baud which makes checkout rather slow.