

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

HAYSTACK OBSERVATORY

WESTFORD, MASSACHUSETTS 01886

9 February 1989

Area Code 508

692-4764

To: VLBA Data Acquisition/Recorder Group

From: Alan E.E. Rogers

Subject: Minutes of Recorder Group Telecon Held 9 February 1989 at 1300 EST

Attendees: G. Peck, (at Haystack)
 A. Rogers, Haystack
 J. Romney, Charlottesville
 R. Escoffier, Charlottesville
 B. Clark, Socorro
 K. Stetten, Socorro
 D. Bagri, Socorro
 R. Heald, Socorro
 C. Walker, Socorro

Formatter, Software Upgrades

A list of software changes which are needed in the formatter was briefly discussed. The most serious problem (the failure of the remote reset) will be investigated when Jim Levine starts testing Formatter #3 in a week or two. Other changes might be handled by NRAO.

Hardware Status

<u>Location</u>	<u>Equipment</u>
Pietown	DAR 3 + REC 1
Kitt Peak	DAR 4
AOC	REC 2
Haystack	DAR 1, Dar 2 being retrofitted
	REC 3 being used for tests
	PYB 1 awaiting final checkout
	PYB 2 still under construction

The big push is to get DAR 1 equipped with Formatter #3 and shipped to the AOC. Some of the boards for Formatter #3 are still at DataCon.

Recorder Characterization Tests

Tests on REC #3 have lead to a better understanding of the sources of tracking error. A model has been developed to explain the sensitivities of the tracking offsets to mechanical alignment errors. The capstan alignment is the most sensitive (1 second of arc change in capstan axis towards the vacuum columns shifts the tape by 0.6 microns) and errors in the capstan alignment and capstan tapes are probably what makes one machine different from another. For example the forward-reverse offset can be made equal to zero by adjusting the capstan axis in the vertical plane. The test results and theoretical model is being written up and tests are now concentrating on properties of the tape and its effect on tracking.