

VLBA ACQUISITION MEMO #292

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

HAYSTACK OBSERVATORY

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TO: VLBA Data Acquisition Group

FROM: Alan E. E. Rogers

SUBJECT: Minutes of recorder group telecon held 11 December 1991 at 1300 EDT

Attendees:	John Romney	NRAO, Charlottesville
	Ray Escoffier	NRAO, Charlottesville
	Jack Campbell	NRAO, Socorro
	George Peck	NRAO, Socorro
	Craig Walker	NRAO, Socorro
	Barry Clark	NRAO, Socorro
	Hans Hinteregger	Haystack
	Roger Cappallo	Haystack
	Ken Wilson	Haystack
	Alan Rogers	Haystack

Recorder controller firmware

Roger Cappallo plans to fix the "power on" problem in the current version by editing the S records and making the updated file available over the network. This quick interim fix will not include the barcode interface which is being implemented using the new compiler/development system.

Scheduling of thin tape experiments

Haystack has agreed to give priority to experiments using thin tapes. Under the new plan all network experiments and any large 7 mm run will use thick tape. Thin tapes will be used only at PieTown and Los Alamos and only for CDP, VLBA tests and small non-network experiments.

Headstacks and Inchworm motors

At present, there is only 1 spare VLBA headstack. This will be installed on the headblock assembly recently returned from the VLA with a worn-out headstack. Additional headstacks are on order from Metrum but may not be received until January. Inchworm motors are also in short supply owing to a manufacturing problem. Replacements for the defective motors are now expected in late January.

Thin tape damage: status of recorder mods. and tape inspection

The transports at PieTown and Los Alamos along with 2 Haystack processors and 2 Haystack development drives have been modified to incorporate the alumina "hardpoints".

Tapes are now being inspected before processing and again after processing. The inspection includes a low speed wind to evaluate the margin (a tape wound at low speed and high tension has the greatest chance of producing a bumpy pack), and microscope pictures of the edge at a marked place (to which we can return exactly for subsequent inspections) along the tape. So far no tapes have made a complete cycle to the field and back.

Tests of 13 micron AMPEX tapes have yielded some mixed results. On the bright side, no severe melted edges have been seen after extensive high speed shuttling. However there may be some thickening of the edges in places where the original edge quality is poor.

A few of the Sony tapes have burred edges that is clearly the result of poor slitting. Samples of these tapes with serial numbers and edge pictures will be sent to Mike Yonker of Sony for inspection.