

VLBA ACQUISITION MEMO #389
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To: VLBA Data Acquisition Group

From: Alan E.E. Rogers

Subject: Minutes of Recorder Telecon held 19 April 1995 at 1300 EST

Attendees: National Radio Astronomy Observatory Haystack
Jack Campbell Marcelo Rosales Hans Hinteregger
Barry Clark Craig Walker Alan ~~Rogers~~
Jon Romney

Thin Film Headstack

Hans summarized the results of his tests which were reported in VLBA Acquisition Memo #388 (Mark IV Memo #213). While there is the potential for a vast increase in track density, using the extremely narrow tracks (≈ 3 micron) of magnetoresistive heads, considerable work may be required to further improve the long term tracking performance of the '96' to prevent overwriting previously recorded passes. Alan suggested that software might peak-up on the previous pass in the same direction and help correct any long term drifts. Further mechanical improvements to the '96' drive are possible and may be required for very high track densities. Hans has observed some short term tracking signatures related to imperfections in the capstan which could be eliminated by better control of the capstan eccentricity.

Loop Dropping

Roger Cappallo's new firmware improves the loop dropping by a factor of 2. The remaining loop dropping problem may be only with the few remaining old capstans which are now being replaced.

Electronic Noise

Little progress was reported on the excessive electronic noise present in some drives. Hans had suggested some time ago, that this problem may be caused by capstan motor noise being radiated out of the motor onto the shaft and then coupled capacitively to the tape. This problem, also may be mainly present in the old capstans.

Bar Code Reader

Occasionally the bar code readers fail to read the code. There is a suspicion that their performance may possibly be degrading with time.