

VLBA ACQUISITION MEMO #357

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To: VLBA Data Acquisition Group

From: Alan E.E. Rogers

Subject: Minutes of Telecon held 16 June 1993 at 1300 EDT

Attendees: Steve Blachman - NRAO
Barry Clark - NRAO
George Peck - NRAO
Jon Romney - NRAO
Craig Walker - NRAO
Hans Hinteregger - Haystack
Alan Rogers - Haystack

Recorder tracking and power level monitor

Jon Romney reported that there have been some problems with tracking at the correlator. A known problem is that the attenuator which sets the power level going to the signal level detector in the recorder must be chosen so that the detector will not saturate. If saturation occurs the track peaking algorithm will fail. George Peck was fairly sure that none of the recorders have the detector saturation problem but that there may be head-to-tape contact for real tracking problems. George agreed to look into some specific cases to determine the exact cause of the poor tracking.

Track substitution

Jon Romney has pointed out a system design deficiency in track substitution. The formatter system tracks are not included in the barrel roll so that this method of substitution is not being used, instead, the system track substitution available in the recorder is being used. The problem arises on playback owing to the lack of a cross-point switch ahead of the undoing of the barrel roll in the VLBA processor.

Capacitor failures in the analog reproduce module

Both NRAO and Haystack are experiencing failures of a 1 microfarad capacitor in the +12 volt regulator circuit of the analog reproduce module. This capacitor and the regulator gets quite hot. The ceramic capacitor chosen is only rated to 85°C and should be replaced with a ceramic or tantalum with 125°C rating.