

January 18, 1983

VLB ARRAY MEMO No. 168

Minutes of the VLBA recorder group telecon meeting held 18 Jan 83 at 1430 EST.

Attendees: J.C. Webber - Haystack
A.R. Whitney - Haystack
A.E.E. Rogers - Haystack
R. Lacasse - NRAO
R. Escoffier - NRAO
K. Kellermann - NRAO
M. Ballister - NRAO
H. Hvatum - NRAO
C. Walker - NRAO
B. Clark - NRAO
M. Ewing - Caltech
D. Jones - Caltech
A. Yen - Toronto

The meeting started a review of various developments in VLBI recording.

Logitudinal Recorder:

John Webber reported that considerable progress has been made in the development of a narrow track width ($40\ \mu\text{m}$) head for the Honeywell MK III recorder. Heads have been made by combining the Matsushita "gapped bar" with the conventional construction techniques at Honeywell. Some of these prototype heads have achieved both sufficiently accurate track placement as well as electrical performance as good as the VCR heads. A demonstration of a prototype of the MK III density enhancement is planned within the next few months.

VCR recorders:

Ray Escoffier reported that he will test a number of VCR machines in his development of a 12-Mbit/sec prototype recorder. Among the recorders to be tested are the PV 1370 consumer product, a commercial grade VCR, a portable VCR and a 4-head VCR. The 4-head VCR may be able to support 2 12 Mbit channels.

Alan Yen reports that the Betamax VCR gives a better eye pattern and wider bandwidth. Ken Kellermann suggested that Ray should add the Betamax to his list.

Recorder report:

Hein Hvatum emphasized that the recorder group should prepare a report by June 83 with a first draft in March. Alan Rogers should take the responsibility for getting the report assembled. The report should include block diagrams, specifications and interface definitions along with a cost estimate. Marty Ewing suggested that we all start working on the playback/correlator interface right away so that we can discuss concrete written proposals at our next meeting. Ken Kellermann emphasized that the report should also contain a schedule.

Burst mode:

Alan Rogers raised the subject of burst mode and suggested that the 800 MHz bandwidth (proposed for the new I.F. processor - video conversion scheme) could be stored in memory as frame packets and distributed to the available recording channels. Alan Yen reported that the Canadians are discussing a burst mode with 20:1 duty cycle.