VLB ARRAY MEMO No. 514

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(860929)

24 September 1986

To: VLBA
From: W. D. Cotton
Subject: Data Processing Meeting 23 September 1986

Participants:

CV:	Benson, Burns, Cotton, Diamond, Romney, Wells
CIT:	Pearson
VLA:	Broadwell, Crane, Hunt, Sowenski, Walker

Agenda for Meeting

The agenda for the next VLBA post processing meeting (23 July 1986, 1600 EST ph (913) 749-9520) is as follows. The secret pass word for CONNEX is "conference code 999P".

Most of the discussion will be about distribution tapes. In particular, the problem of translating archive tapes to distribution tapes for both the VLA and VLBA will be discussed.

Specific items for discussion:

1) Current status of distribution tape and calibration software (Cotton).

2) Translation of archive to distribution tapes for the VLA and VLBA. Jon Romney has made the suggestion that this be done on a machine shared between the VLBA and VLA. Jon has also suggested that this machine could be used to do the calibrator fringe fits for the VLBA (the corresponding function on the VLA will be done in the synchronous system).

3) Other.

Item 1)

Cotton described the current status of the AIPS VLBA software for distribution tapes and calibration. The relevant routines which have had some recent progress are:

- VLBIN: (under development by J. Benson) This task will read data from the NRAO Mk II VLBI correlator and write a multisource data file with a calibration table which contains the fully specified model used to processes the data. VLBIN currently works at a useable level.

- TABED: This new routine performs simple editing operations on tables. An example operation is to add a constant value to all entries in a given column subject to some selection criteria.

- CALIB: (under development by W. Cotton) This task is a general purpose calibration routine. At present its implementation does not include polarization, baseline dependent corrections, or frequency channel dependent corrections (except for delay corrections). CALIB currently works in some modes of operation and is in the advanced stages of debugging. After the 15JAN87 release of AIPS is frozen CALIB will be be broken into two tasks; one to do "fringe fitting" and the other to do phase and amplitude calibration.

Walker asked if there had been any changes made to the way weights were handled and a lively discussion on the topic ensued.

Item 2)

The bulk of the discussion was about how to generate distribution tapes from the archive files for both the VLA and VLBA. Cotton summarized the current VLBA plans as having a computer which does the calibrator fringe searches and transcribes the archive files to distribution tapes. Romney did not want to take credit for the idea of combining the VLBA and VLA distribution tape writing functions in the same machine but suggested that there might be some savings possible.

Hunt described the VLA plans for generating distribution tapes after the demise of the Dec-10 and the implemention of the new archive format, scheduled for next year. He thought that a PDP-11 might be available to transcribe archive tapes.

Pearson suggested that AIPS could be used to transcribe archive tapes since a FITS writer is already available and the new archive format is similar to the current format which the AIPS task FILLR can read. Cotton suggested that this was a rather heavyhanded and expensive way to translate tapes since it would require a VAX rather than a PDP-11. The sentiment of the meeting was that the AIPS approach was the most practical since it required the least software development.

Item 3) None.