From: AIPS::CLARK 21-NOV-1984 11:02
To: @SYSGROUP
Subj: Data Archiving

Whitney and Rogers have suggested in VLBA Correlator Memo 033 that correlator data should be archived before the fringe processors. I believe that the only reason to have the fringe processors integral to the correlator is to reduce the volume of data to be archived. If the Whitney-Rogers suggestion is adopted, the fringe processors should be removed from the correlator and implemented as a separate, standalone, non-realtime device. This has obvious benefits in software complexity, software development convenience, and maintenance downtimes.

From: CVAX: BENSON 21-NOV-1984 11:50
To: @[LARRY.VLB]SYSGROUP.DIS
Subj: VLBA Archive

I'd like to respond to the Whitney and Rogers suggestion that the raw correlator output be archived.

I think we must archive the VLBA data stream at the output of the fringe processer system.

The fringe processor will be an intergal part of the correlator. The astronomers will not personally use the fringe processor, rather the correlator output proceeds directly through the fringe processor. The various control parameters for the fringe processor tasks will be set up automatically. In analogy to the VLA, I see the fringe processor system not as a VLBA pipeline-like system, rather the fringe processor corresponds more to the computer hardware, software and AP that perform similar tasks on the VLA correlator output (nearly synchronously). The VLA data is archived at this point rather than on the raw correlator output.

For the fringe processor system to be useful, it will have to be made simple and safe enough such that it does not make mistakes, and is entirely accountable. Archiving the VLBA data on the fringe processor output will be as safe as archiving the raw correlator output.

From: CVAX::RCW 21-NOV-1984 12:09
To: @[LARRY.VLB]SYSGROUP.DIS
Subj: Data archiving

As I calculate it, the data rate from the correlator will be will be about 30 Gbytes/day at a 1 sec dump rate (the slowest being comtemplated as the minimum) or 300 Gbytes/day at 0.1 sec (the current goal-this may change) without the fringe processor. Technology is getting better and in the near future a small number of Gbytes /day may be ok, but we have another order of magnitude to go. The extreme experiments will force us to have a dump mode, but I cannot see us archiving that much data full time anytime soon.