

**VLBA QUESTIONS NEEDING EARLY ANSWERS**

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1. There will be a flag set to suppress data when antennas are off source. What is the route of that flag? The two possible are to record it in the auxiliary data portion of the IF tapes, or to send it to the Array Control computer, thence into the array observing log file, which is presented to the Correlator Control computer, which could then ignore data taken when the antennas are off source. A minor variant of the first route, whether the flag is implemented by passing to the Correlator Control computer, which will suppress writing the output, or whether it merely suppresses DATAVALID, is an internal issue for the correlator designers.
2. How will system temperature monitor information be passed? Via auxiliary data, or via the Array Control computer?
3. How will antenna pointing be determined and analysed? Is it necessary to implement interferometer mode pointing to determine feed collimation errors, despite the obvious price in tape usage? If the system temperature monitor is to be used for pointing, it will need a resolution of about 1/10000 of system. There is, I believe, currently no provision for loadswitching any receiver. Is the system stable enough for reliable pointing determinations on a couple of dozen isolated objects, at any band? Does the system need to track solar system objects for pointing purposes?
4. How will clocks be set? This resolves itself into two questions. The first is the setting of the maser derived seconds tick. The second is the setting of the UTC digital display clock/calendar. There are some arguments in favor of having the station computer do the second. It would be possible to have the station computer run a LORAN detector program, if the sampler could be driven fast enough, but this is sort of a last resort for setting seconds ticks, and I would hope that other arrangements are adequate.
5. How will pulsar blanking be done, at the stations or at the correlator?
6. How should we handle unauthorized intrusions? A direct burglar alarm line to the nearest police station is one possibility. More complex are an intrusion alarm that reports to array control, and an annunciator and microphone at the station. More complex yet would be a slow-scan TV at the station as well. If we want to keep open these possibilities, do we want to allocate the communication bandwidth for them now, or do we say that they will be handled on a dialup line?