

NLSRT Memo No. 20

From: TUCVAX::DEMERSON "Darrel Emerson" 2-DEC-1988 22:58
To: CVAX::KKELLERM,DEMERSON
Subj: RE: 300 ft. replacement telescope

I would assume that some focal plane capability would be built into the the beginning. That of course would win back some of the intrinsic speed advantage that any synthesis instrument in effect possesses. As a small detail, I suspect that the packing efficiency of any kind of focal-plane feed system would be rather worse than the packing efficiency of a number of small antennas, but that is not really the main point.

In my mind, it all hinges on whether the cost of building an antenna of diameter D goes as D^2 or faster.

The use of focal plane arrays or now XXX not is really a separate issue. It would always be possible to put a focal plane array on each of the smaller antennas. It would be interesting to do a cost analysis by differentiating s and looking for the minimum, taking account of focal plane arrays both in a large single dish antenna an on each of a multi-element array.

I apologize for the awful typing. I'm actually typing this on a Commodore C64 at home, and I haven't found out which is the "delete" key on this terminal emulator yet!!

I'm sorry I couldn't get to the GB meeting. Can't wait to hear how it all went. By the way, no-one in Tucson ever received a copy of your working-group report. Whichever way it goes, good luck!

Cheers,

Darrel.