## National Radio Astronomy Observatory Tucson, Arizona

September 25, 1987

## **MEMORANDUM**

To: John, Andy, Bob, Darrel

From: Phil

Subject: Routing of Subreflector SIG/REF Signals

In a report of our tests last week, I have written a blurb about Andy's phase advancer box, which I'm quite pleased with. Just so it doesn't get overlooked, I'm repeating it here:

.....There is one problem with using the phase advancer that we should remedy as a high priority. When going between spectral line beam switching and continuum observing, the operator must remember to switch the external SIG/REF cables and set the Dowd box to 0 ms. This is certain to lead to error; I forgot to do it several times myself. Although Andy has left provision for the box to be controlled via the IEEE bus, a simple solution is to build a BNC switch box. The box need have only the 2 S/R inputs, a selector switch, and one BNC output for the S/R to the subreflector. This eliminates the need for the cable change and resetting the Dowd box. If the switch were manual, it would be an improvement over the present situation, but the switch should really be thrown by a TTL signal from the computer....

I hope this won't be a lot of trouble. If we don't do it, I know we are going to have big screw-ups at the telescope.