

27/4/87

Greetings Ken:

I'm wondering what progress is being made toward obtaining some crystal I.F. filters for receiver. They should have 3db bandwidths of approximately 6, 12, 25kc. The shape factor (width at 60db/width at 3db) should be in range 2.0 to 1.5 approx. Center frequency 455kc or thereabouts. If they are made for use with transistors, OK. I'll change the mixer and IF tubes to transistors. Probably whole set should be transistorized. Please send catalogs on what can be had off the shelf. I'll want to put these in set as soon as I return middle of october.

Those big coil forms arrived too late to do anything with. I intend to wind and place these in tuner boxes. The little coils I built are simply not good enough. I'll explain later.

The DOC ionosonde is OK for their purposes above 4mc. However it is useless for our purposes below 2.5mc. I intend to build a good ionosonde covering range 1.5 to 2.5mc only. When used on our antenna array probably 100 watts peak power will be adequate. There is the big old job used by Ron Hurd. Also there is a smaller job to left of table we had our receiver on. We'll fix it up and feed it into our 600 ohm system on north wall. Don't tell Don Muldrew about this plan. He will want to kibitz.

What about the low capacity Q meter from Camden, N.J.?

Also we should have a R.F. bridge for measuring performance of tuner boxes and 600 ohm line. The only bridge I know of which will measure balanced R.F. impedances is a Marconi model TME 20B/1. It will need a suitable oscillator and detector. Such is type TF 562B/1. This operates from mains. However, some alternate battery operated devices are probably now available. Try to borrow one from CRC or DOC, or get a used one at Camden, N.J. If all else fails, contact Marconi about a new one. We want it by early October 87, not spring 88.

I think we should press on with this enterprise, fix up the installation and get some good results. Will write again.

Late 1985 I wrote an article for IEEE transaction on plasma physics. This appeared in Dec. 86 issue. Without my knowledge someone changed my address from here to NRC. If any requests for reprints turn up, just keep them. Don't send them here. I have no reprints. If reprints turn up there, just keep them.

Please remember me to the fellows.

Ken Tapping, NRC

Grote
Grote Reber