

*North Shore Engineering
Re Duplexers*

North Main Street
Wolfeboro, New Hampshire 03894
December 15, 1976

Dear John:

Just a report on the Wolfeboro Repeater which is now operating under what we call hostile environment conditions. The temp this morning is just 2^of. and it's still plugging away.

The duplexers have not been touched since you so kindly installed them. They have maintained their stability in great shape and we are completely happy with their performance.

You will no doubt recall the difficulty experienced in getting all of the desensing down to a minimum. I know at the time you were not completely satisfied with the final performance but it seemed quite adequate for operation. Well we found the source of the stray RF and quite by accident too.

We had a walkie talkie at the site during some amplifier adjustments we were making at the site and noticed that we still had some RF indication after normal shut-down. (Power on VCC off). This was a complete mystery. However in prodding around in the rack with the walkie-talkie and its rubber duck antenna, we located the emissions coming from the low voltage power supply. The 6030 regulator chip was putting out like a small transmitter -- and there was the white noise!

The end result was a redesign of the power supply with a new circuit a different chip and no extraneous RF floating around the shack.

Reinstallation of the Interface and control equipment and test for possible desensing indicated the problem cured and now with full power the whole function is operating to our satisfaction.

As a result of our relocation to the present site (we moved last May) there have been assigned new call letters and instead of the original WR1ADX we are now WR1AJH which is a function of FCC regulations.

In behalf of the Association I would like to express our thanks and appreciation for the very great help you have been to us, and to send this report along to you in recognition of the fine workmanship put into the duplexes and the engineering that went into their development.

Sincerely,

Ellis F. Miller W1IIQ
Tech Committee IARR