



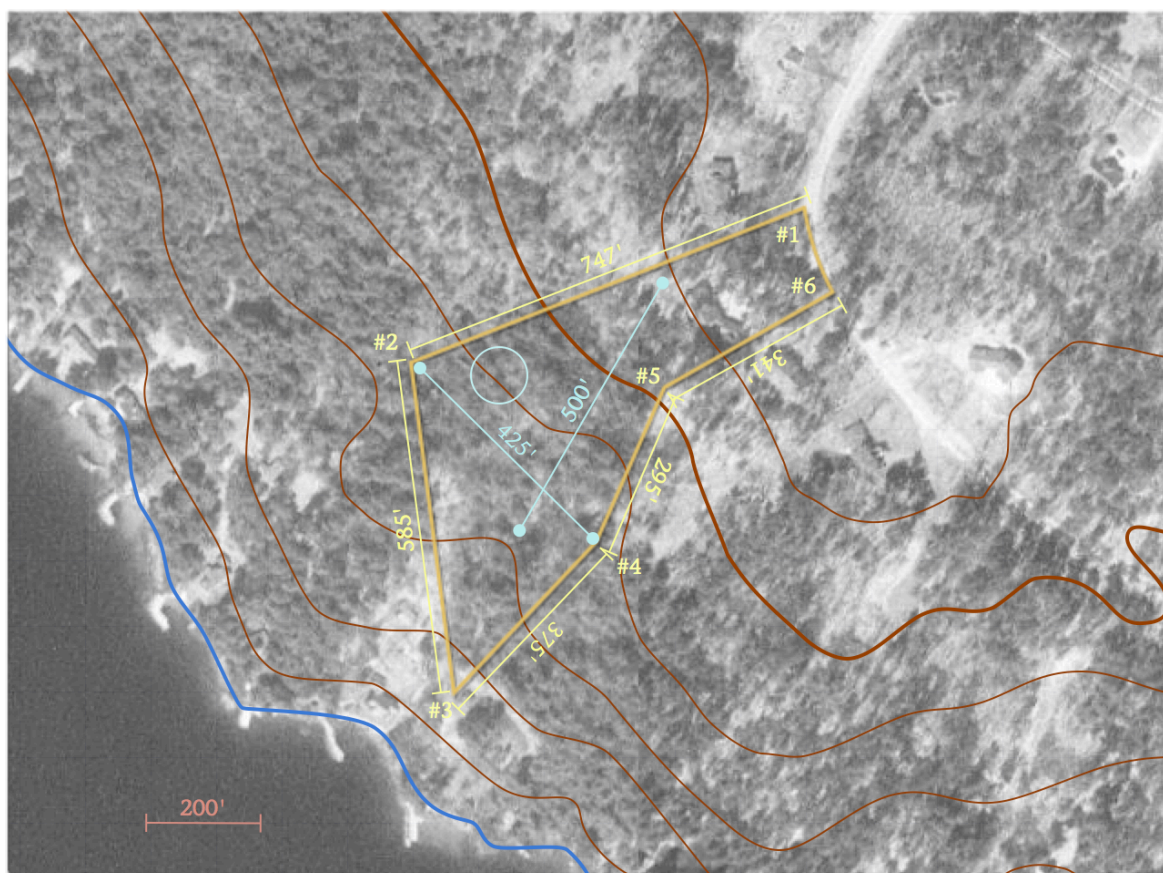
Daytime noise floor

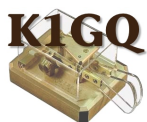
Below, Elecraft P3 panadapter screen captures for 160m and 80m, taken near 13Z in early September. Four cases for each band, for each of two reversible beverages.

RECEIVE ANTENNA LAYOUT

The beverages are installed over terrain that generally slopes down towards Southwest at about 5 degrees. The layout below shows the two beverage wires in cyan. The cyan circle indicates a potential location for a W1FV 9-element receive array, with 140-foot diameter.

K1GQ Beverage Layout



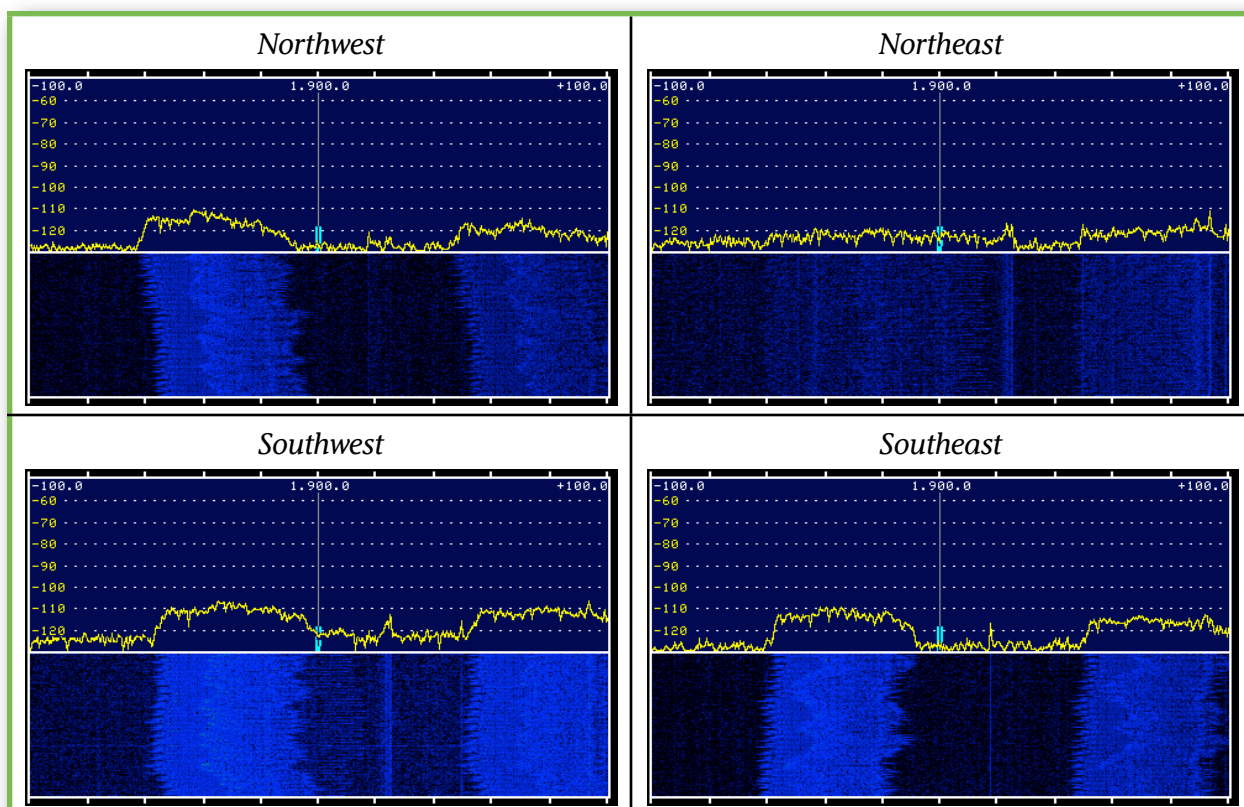


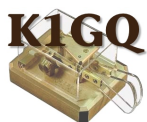
The terrain contour interval is 20 feet. Note that the NE/SW beverage direction is off by 30 degrees from where it ought to be; I compensated in the wrong direction for the difference between true and magnetic north.

PANADAPTER SETUP

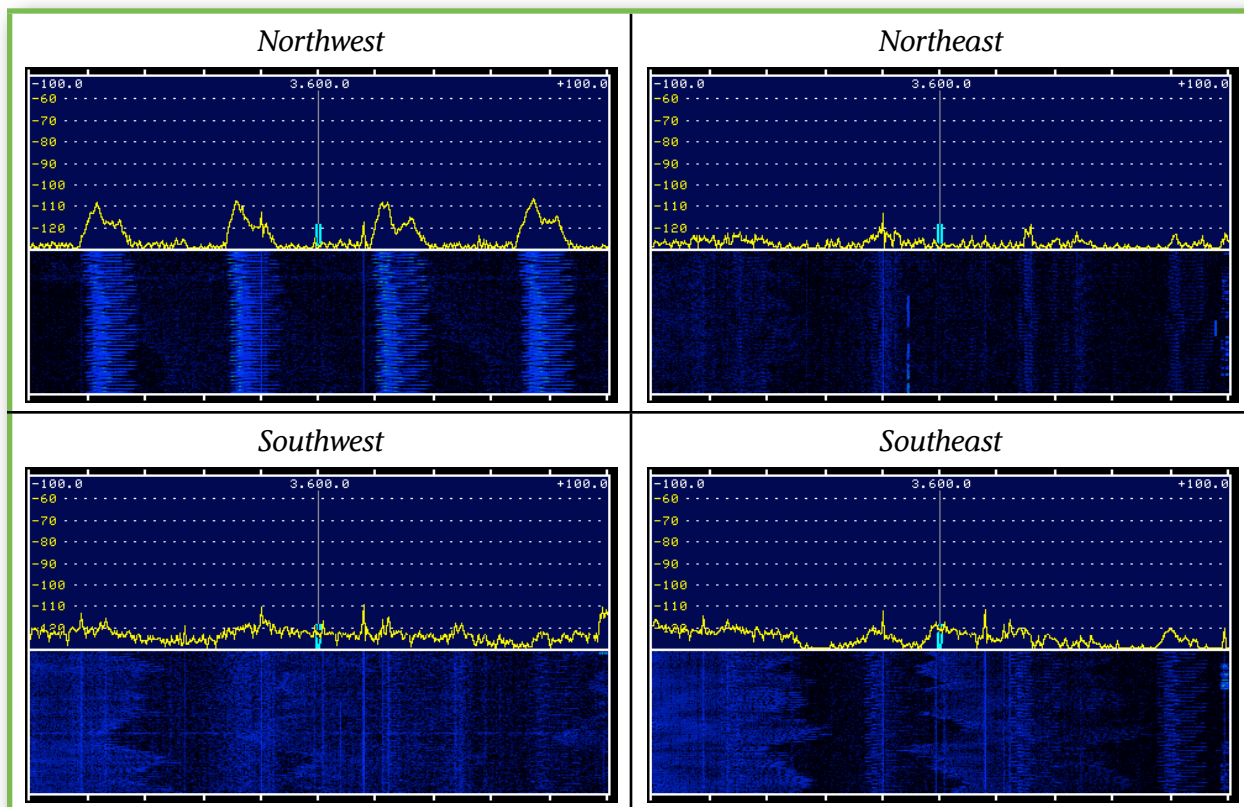
The P3 was set to maximum frequency span, 200 kHz, and maximum vertical axis range, 80 dB. The vertical axis is within about 5 dB of true dBm into the K3 RX ANT port. The upper half of the display shows signal level versus frequency averaged over 5 sweeps. The bottom half of the display (the “waterfall”) shows a history of the sweeps over the past 10 seconds or so, with color-mapped signal levels. The most recent sweep is at the top of the waterfall.

160 Meters





80 Meters



OBSERVATIONS

- The beverages have directivity.
- The quietest direction is NE, uphill through my neighbor's house.
- -130 dBm is well below the nighttime band noise level; -110 dBm not so much.
- The RFI source on 160m is on the air all the time, so it's probably not outdoor lighting. It drifts quite a bit; sometimes the lower edge approaches 1810 kHz.
- It isn't clear whether or not the RFI on 80m is from the same source as the 160m source.
- The P3 is a useful device for assessing the RF environment.
- It would be even more useful if there were a database of wideband RFI signatures.