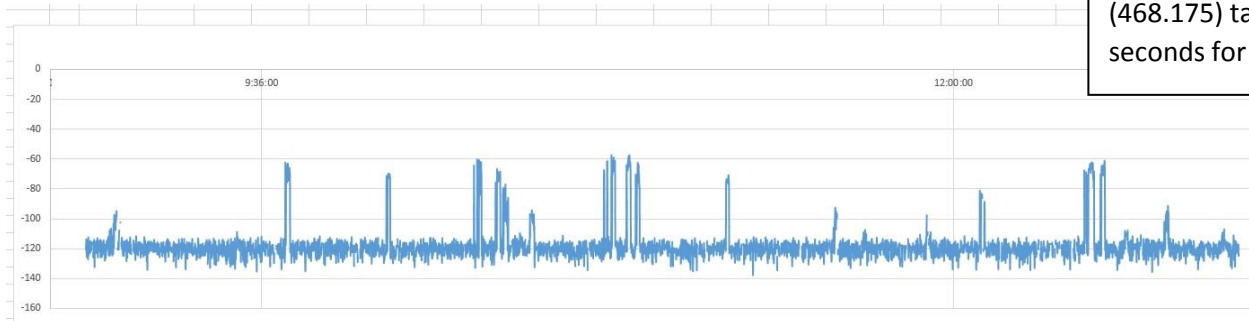


Below is a 4 hour log of an NBFM channel taken from the receive coupler of an EMS radio system. The analyzer was set to a 10 MHz span and 801 point sweep for a 12.5 kHz step size. The RBW was set to 12.5 kHz.

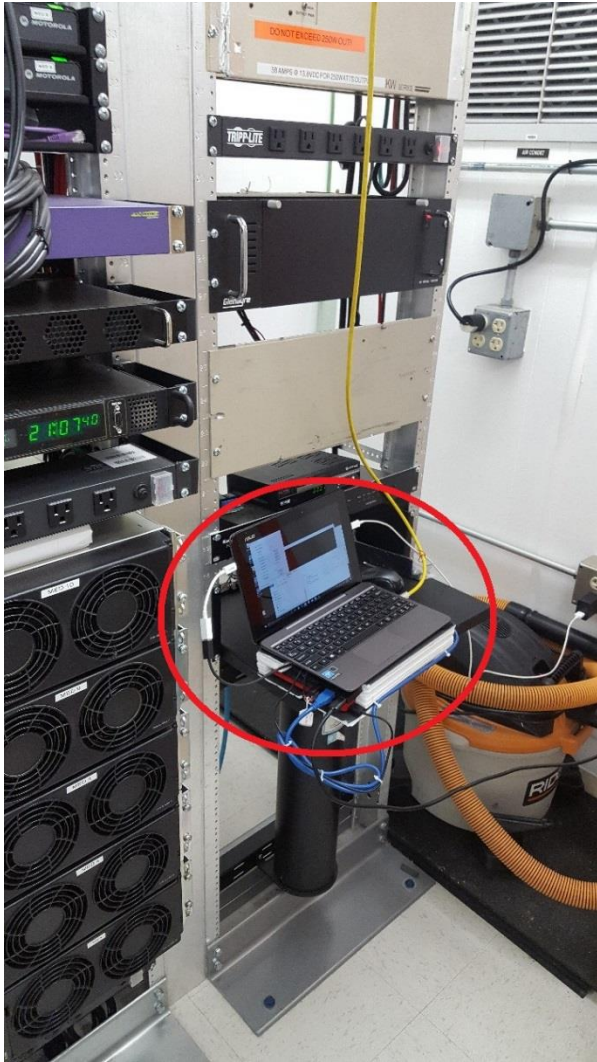
A cavity bandpass filter was used in front of the Tektronix RSA306B spectrum analyzer to reduce the possibility of overload from nearby broadcast signals.

The analyzer was run from Python logging software, taking one measurement every 3 seconds with a GPS time tag. The sample time can be set from 1 seconds to many minutes. The measurement data is stored on a memory stick in the tablet PC. With an 8 GB memory stick, logging could be done for 48 hours. The plot below was from one the 801 channels measured and stored into an Excel file.

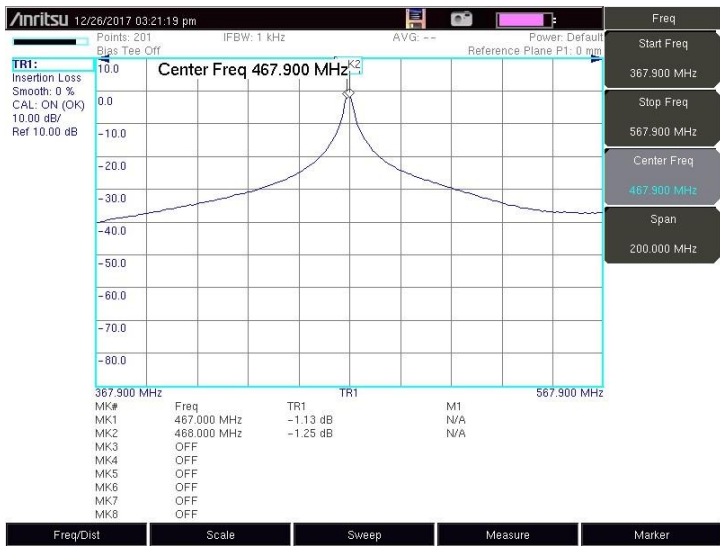
The average noise floor was -120 dBm and the receive traffic occupancy (>-90 dBm) was 4%



Excel plot of RSSI of one EMS receive channel (468.175) taken every 3 seconds for 4 hours.



Tektronix RSA306B running from  
Windows 10 tablet PC



Motorola cavity filter in front of the Tek analyzer. The 10 dB BW was 10 MHz centered around 467.9 MHz