

Building a portable Multi-Limited VHF Contest Station

KA2LIM / K2LIM

This endeavor started in 2003 with the construction of a 20 ft tower on a trailer for portable operation to activate rare and needed grid squares. In a three year time span the ideas and parts began to come together and construction began on portable a Multi-Limited contest station. First with the "Limo", a converted school bus for the operating positions and one tower on a trailer with three 10 ft tower sections and masts being carried on another trailer that would be setup by hand upon arrival at the desired hilltop, into what we have today. Consisting of a 25 ft tilt-up Rohn 25g tower on the rear of the "Limo" which holds the 2 meter antenna's. Three more trailers, two which have 25 ft Rohn 25g tilt-up towers, one for the 6 meter antenna's, one for the 222 antenna's and one having a 40 ft crank-up (20 ft in the nested and tilted down position for travel) for the 432 antenna's. The entire system is portable and was moved, setup and then tore down for each VHF/ UHF contest.

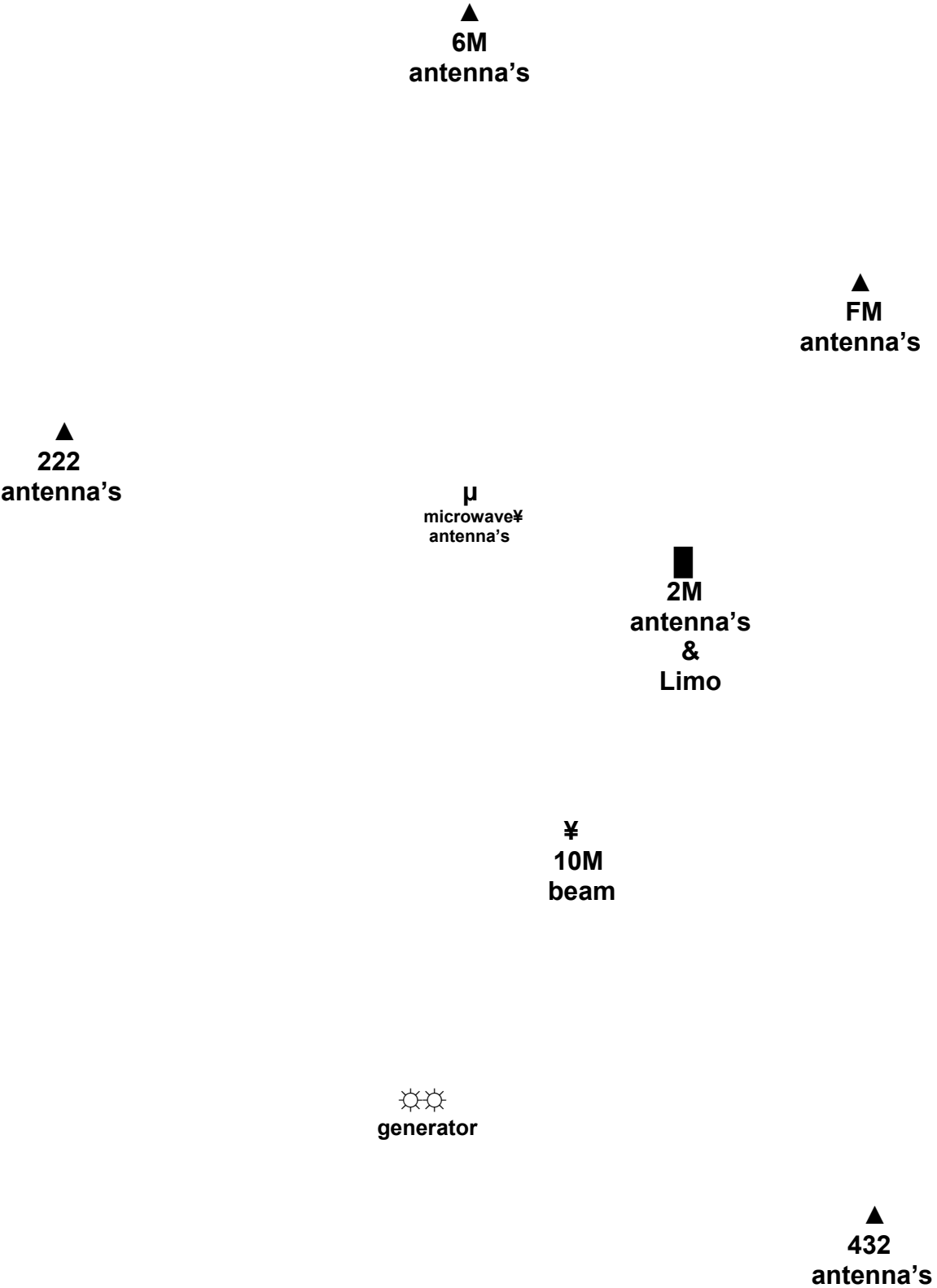
Although considerable amount of work was involved for each of these endeavors, much was learned as to antenna positioning, ie: distance between the different antenna's, layout to eliminate interference between bands, what coax to use for ease of setup and tear -down and storage. As additions were made to the "antenna farm" the basic concept has always been kept in mind when constructing and that is, mobility. Although we presently have a location that has afforded us the luxury of keeping everything in place and not having to move, We can tear down and move the entire station if need be.

The slide show presentation that accompanies this writing, shows the current location and setup of the KA2LIM/K2LIM contest station, located in western New York state in grid square FN12mg. Elevation is 2020 ft asl with an open horizon of 40 plus miles in all directions. Access is by dirt road thru gated entry. No commercial power, so all our electrical needs are provided by generator and there is no internet access. (Ain't it great!)

Starting with the January 2011 VHF contest we are using for all VHF/UHF contest our newly acquired callsign.

K2LIM

Block diagram of station layout





K2LIM contest site



Six Meter tower & trailer



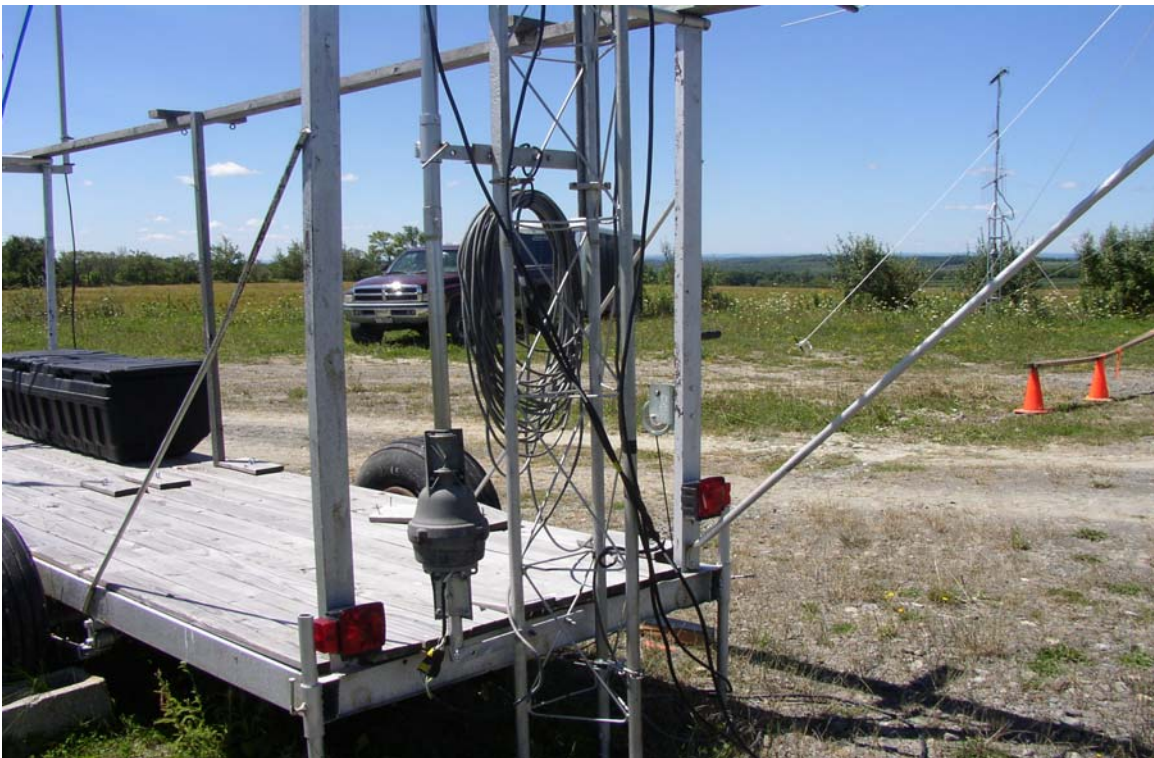
Winch for tilt-up tower on 6 meter trailer



Pivot point for the tower on 432 trailer



2 meter tower mounted on back of the “Limo”



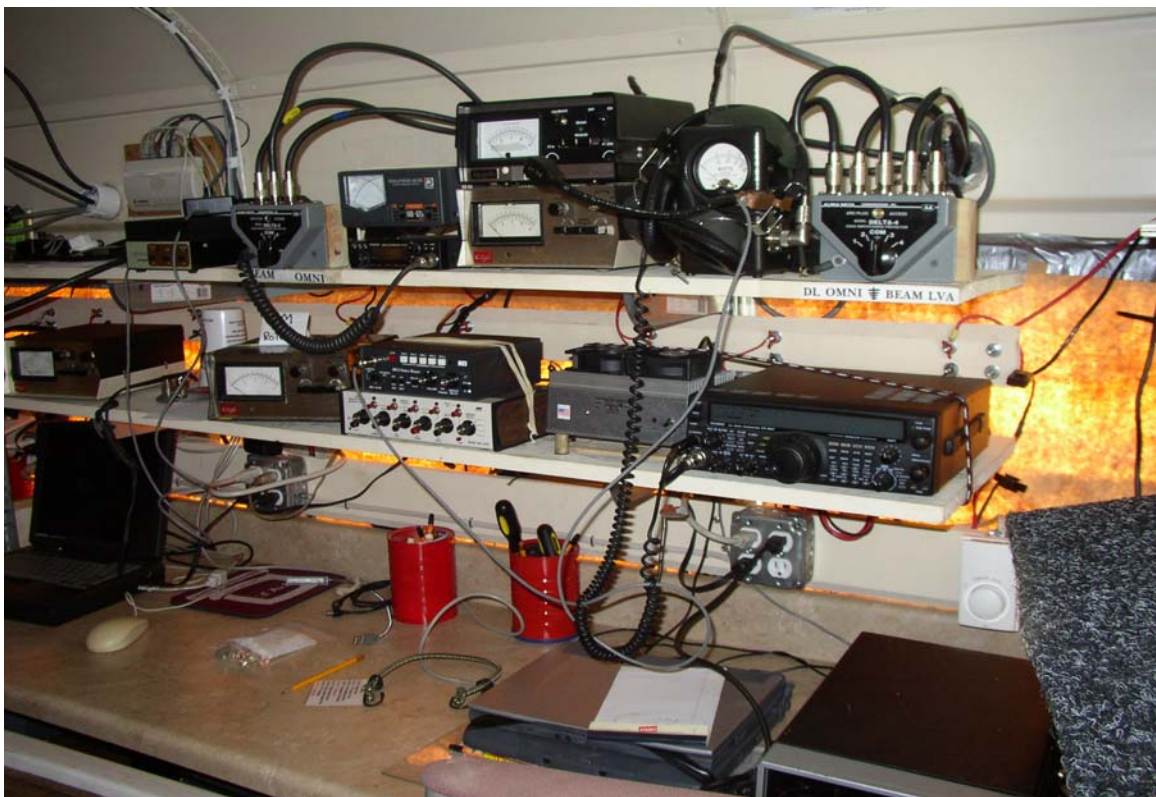
222 tower & trailer



6M position



2M position



222 position



432 position

All four operating positions have the same IF transceiver, cw memory keyer and paddles, voice keyer, headset, foot switch, rotor control's, antenna selection switch and computer for logging. Following the K.I.S.S. (keep it simple stupid) method for ease of operation.

The antenna's can be seen along with notes in the slide show presentation.