

(Editor's note: Bill Kumpe, Esq., (KB5BEK) is a retired attorney and former navy radioman of the VietNam Era. We are old, old friends. We were both at TU, as was his wife. If you do not know him, you likely have read some of his work in Christian legal rights. When he checked in on the Evergreen net, we reconnected. He has been crucial to our experimenting with 'local' HF Emcom, as one of the Intrepid Scouts, the first people venturing into the great unknown. His unsolicited note came this morning. It is re-submitted as a Ham article so it will be archived. This is the most succinct analysis of the science behind emergency communications I have come across. Excellent. Thank you.)

Hi:

My name is Bill Kumpe. I am the director of the Oklahoma Church Security Association. I am working with Marc in establishing local/regional HF and Low VHF EMCOM (emergency communication) nets. Let me share my take on the rationale behind some of the choices being made.

To start with, while some of the technology being presented is cutting edge (particularly Dr. M's antennas) the problem has been around in the military since WWI. Common solutions which work very well have been developed.

80 and 40 meter HF NVIS (near vertical incidence skywave) work very well for "theater" communications. NVIS was developed in WWII for "theater communications" and was used very effectively in coordinating the D-Day landings. The ranges start from as close as a few clicks out to 250 or so. The signal is directed straight up where it bounces back down in a "showerhead" pattern. NVIS requires antennas specially tuned and polarized for that application. This solves the HF problem of "talking over the heads" of local stations. The typical HF ham antenna is designed to have a very low take off angle to extend range and often the closest it can be heard is several hundred miles away on the "first bounce."

10 and 6 meter Low VHF FM work great for local comms. Ranges can vary depending upon topography, foliage/buildings, propagation conditions etc. but should give anywhere from a few clicks out to 40 or so. Ever since WWII Low VHF FM has been the workhorse of the military for local communications. The one exception is that in Afghanistan it was rumored that ground forces were ditching their high dollar high tech cellular, digital and satcom devices for local comms in favor of old fashioned Viet Nam era NVIS which will talk over mountains and into deep valleys and crevices.

Having said all of that, Dr. M's decisions are based upon proven principles for the mission which is to establish reliable lowest technical common denominator communication locally and regionally.

God bless bros and sisters.

Bill Kumpe

