

The main purpose would be to engage in antenna, transmitter and receiver design and testing in the region of 465 kHz to 478 kHz. The study would also include the feasibility of using cost effective equipment add-ons to enable operation of existing amateur radio equipment in this possible future amateur frequency allocation. Research would also include results on using and /or modifying existing 1.8 MHz amateur radio antennas for the 465 to 478 kHz frequency range. A large amount of interest in this new frequency segment has been shown to exist within the amateur community.

The secondary goal would be to investigate the different modes of signal propagation available in this frequency range. The effect of the noisy atmospheric and RF environment at these frequencies will also be addressed. The impact of these items on equipment design will be evaluated. Several different emission types including CW, FSK, and PSK31 will be evaluated as to their effectiveness in this frequency range.

A significant number of licensed experimental stations running in this frequency range for several years have already shown that they are able to operate without impact to primary users.

Respectfully submitted,

Albert J Ward III Owner/Operator – W5LUA

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