

Mr. Hinton:

I was given your name and e-mail address as a contact person who may be able to send me to the correct FAA frequency management office to resolve the following matter.

My firm has been tasked by SPAWAR, San Diego, to conduct tests of antenna systems used by the military for rapid deployment "Psyops" transmissions during military actions. These antennas are used for transmitting AM broadcasts to local populations, operating in the medium frequency band, which in ITU Regions I and III extends from 526.5 to 1606.5 kHz and in Region II from 525 kHz to 1705 kHz. In the United States, however, the 525 to 535 kHz portion of this band is reserved for Aeronautical Radionavigation and for Mobile use. Under the latter designation, both the Federal government and local and state governments operate low power Travelers' Information Stations on 530 kHz. (See 47CFR2.106 page 5) There are no known TIS stations on this frequency in the area where these tests would be conducted. We have conducted a search of NavAids and the only uses of the frequencies between 525 and 535 kHz we were able to locate are in Alaska, eastern Canada, and Bermuda, and specifically of 530 kHz at Adak, AK and North Bay, Ontario.

Because the military's equipment is designed to operate on 530 and 531 kHz, it is necessary to conduct tests of the antenna characteristics (radiation efficiency and power handling capability) at 530 kHz. The FCC Office of Engineering and Technology has advised us that frequency coordination with FAA is necessary for the 530 kHz operations.

The tests are proposed to be conducted at one of the following four locations:

El Centro NAF	32 53 24 NL x 115 47 14 WL
Yuma Proving Ground	32 49 19 NL x 114 22 57 WL
	32 48 27 NL x 114 21 25 WL
Fort Huachuca (All NAD-83)	32 08 15 NL x 109 50 58 WL

The highest gain antenna to be tested will have an inverse distance field of no more than 260 mV/m/kW/km at 530 kHz, or about 1.5 dB below a reference 1/4 wave monopole antenna.

The attached exhibit material, prepared for the FCC Form 442, outlines the salient features of the operation proposed. As noted therein, operation will be conducted during daytime hours with 1 kilowatt or less, unmodulated, except for brief periods (1/2 hour or less) of operation during experimental period hours (1200 midnight to local sunrise) with 10 kW and tone modulation for determining high power current and voltage handling characteristics of the equipment under test. The tests at 530 kHz are critical to the project, since the antenna efficiencies are the lowest and the system voltages and currents are the highest at this frequency, the lowest at which the equipment will be used by the military.

Please advise me or Stephen Lockwood (lockwood@hatdaw.com) of my office as to the correct person or office to which this frequency coordination request should be provided.

Ben Dawson

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