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Don't Forget To Delete Me!

Carl Huie*Exhibits*

From: WE0H [we0h@gentekcom.com]
Sent: Wednesday, October 29, 2003 6:31 PM
To: Carl Huie
Subject: RE: 228-EX-PL-2003

Hello Carl,

I remember your name from talking with Ken in Moscow Idaho of the SHMRG group that has 166.5kc on their Part 5 license. I have provided reception reports for the station located in Louisiana several times. That is Ralph Hartwell down there running an interesting vertical antenna on 166.5kc.

My interest in the 160-190kc band and the 135.7-137.8kc band is to experiment with small and large loop and flattop vertical antennas in a heavily treed piece of land. I want to measure close and long-range field strengths during the different seasons of which the leaves and tree sap may absorb the RF signal but to what extent is to be determined. My antennas will be no larger than the drawings I submitted. I would like to find out what an acceptable minimum size of antenna that would still provide a skywave signal that is strong enough for QRSS (very slow CW) reception out to about 1000 miles and what minimum sized antenna would provide audible CW and SSB at 1000 miles. The higher power would most likely be needed for audible signals and lower power should provide acceptable QRSS signals. I want to compare the loops ground wave signal levels to the verticals to determine the effects of ground screens and soil moisture under these two very different antennas. A horizontal loop would also be considered after the approval of that type of antenna by your department, but this will be after the tests of the antennas submitted in my application. I believe the horizontal loop would provide the lowest visual impact to the general public, but can it work with a reasonable power output level; that could be determined.

I would like to experiment with various impedance matching designs and feedpoints to determine the take off angles of the signal on the loop and if there is a specific matching design or specific placement of the feedpoint that produces higher or lower efficiency. I would like to find out the effects of the verticals loading coil placement has on the efficiency of the vertical since it would be installed with the base within 6 feet of a large tree and the top portion would be 20 feet from the tree. How the various Minnesota seasons would affect the losses at specific locations for the loading coil will be determined. Is the coil very lossy up high and away from the tree during warm seasons with heavy foliage or lower loss down low over a ground plane installed on the soil? Can the tree be effectively screened to lessen the losses and does this become a problem with return currents at higher power output levels? How does the below zero temperatures affect the tuning that may have been setup during warm weather months? These questions can be answered with your generous approval of my application.

Various conductors will be tried on both antennas to find a cost effective option at various power output levels. My main goal is to design the smallest antenna of either type that would provide acceptable signal levels to be detected with a power level that would be reasonable. I see no reason to have to transmit a 300w signal just because of a poor antenna. The antenna should be improved to some cost effective point that lower power can be used to provide an acceptable signal at some distance that is reasonable.

I have an HP 3586C selective level meter for a LF receiver and active receive antennas and preamps for listening for other radio service signals to determine if a chosen frequency in either of the two bands listed on my application are in use before commencing transmitting. I have heard no transmitting other than the Part-15 operators on the 160-190kc band. I will keep a wide distance from them so to not cause any interference. The 135.7-137.8kc band will have a separate log of experiments since I feel the losses will be a problem down that low. All I have seen on that band is Loran lines.

If you would be so kind to approve my application I will provide ongoing results of my experiments on a website for other persons to view so they may benefit from my experimenting and hopefully gain more knowledge about antennas used on these two LF bands.

If you would like more information, please feel free to email me or if your in the office later in the afternoons or weekends, you can try the phone number listed on my application which is 763-422-2073. If you feel that something isn't acceptable on my application, please contact me so I can correct it. I did amend the application for a lower power level than I specified at first fearing that the FCC would not consider levels that high on these two bands.

Thank you,
Michael Reid

-----Original Message-----

From: Carl Huie [mailto:Carl.Huie@fcc.gov]
Sent: Wednesday, October 29, 2003 2:43 PM
To: we0h@gentekcom.com
Subject: 228-EX-PL-2003

The frequencies in your application are allocated for fixed and maritime mobile operations. What is your interest in these bands? Where is this headed for?

Carl Huie

 This message was sent with High importance

From: WE0H [we0h@gentekcom.com]

Sent: Wed 11/5/2003 7:54 PM

To: Carl Huie

Cc:

Subject: RE: 228-EX-PL-2003 WD2XGI

Attachments:  FCC-03-105A1.pdf(307KB)

Hello Carl,

I now see there is a callsign issued for my application. Is this a standard practice for all applications whether gra

I attached the entire document. Please look at page 7 paragraphs 20. It states what I have copied below.

20. Accordingly, we decline to make an allocation to the amateur service in the LI

So after reading this and having our discussion on the phone last week, the FCC st:

I would therefore like you to reconsider my application if you may, to allow me a

Thank you much,

Michael J. Reid

Reference 228-EX-PL-2003

WD2XGI

Carl Huie

To... WE0H**Cc...****Bcc...****Subject:** RE: 228-EX-PL-2003 WD2XGI**Attachments:**

Your application originally, herein supplemented, did not state the goal of propagation studies and experimentation, which is a potential amateur allocation. Assigning a call sign is a necessary step while undergoing coordination with IRAC (Government users), which is required because these are shared bands.

-----Original Message-----

From: WE0H [mailto:we0h@gentekcom.com]**Sent:** Wed 11/5/2003 7:54 PM**To:** Carl Huie**Cc:****Subject:** RE: 228-EX-PL-2003 WD2XGI

Hello Carl,

I now see there is a callsign issued for my application. Is this a standard practice for all applications whether granted or denied? Also I was reading FCC document 03-105A1 which is the ruling on the recent 136kc band for amateur use.

I attached the entire document. Please look at page 7 paragraphs 20. It states what I have copied below.

20. Accordingly, we decline to make an allocation to the amateur service in the LF spectrum at this time. As indicated above, we do believe there is potential for some limited operation in these bands under individual experimental licenses. Operations at LF under our experimental license program will allow amateur use to be coordinated with utility companies on a case-by-case basis, and allow empirical data to be developed on the sharing possibilities in this band for future consideration. In addition, amateurs may still make use of the 160- 190 kHz band under our Part 97 rules, which are much more restrictive, and therefore more protective of PLCs, than the limits proposed in the Notice.

So after reading this and having our discussion on the phone last week, the FCC still may consider a low frequency allocation for the Amateur Radio service in the future.

I would therefore like you to reconsider my application if you may, to allow me a grant of a Part 5 license to allow me to fully prepare for a possible Amateur radio low frequency allocation. If there is a question of ERP or final amplifier output on the 160-190kc band, please feel free to set a limit for that band less than what I have stated in my revised exhibit.

Thank you much,

Michael J. Reid

Reference 228-EX-PL-2003

WD2XGI