

From: Warren Ziegler

To: Anthony Serafini

Date: May 09, 2016

Subject: Request for Info - File # 0254-EX-PL-2016

Message:

Anthony Serafini
FCC Office of Engineering and Technology
Experimental Licensing Branch

Dear Mr. Serafini,

Thank you for your prompt review of the HFMedialink experimental application. Per your comments, the experiment is not amateur in nature nor is it compatible with amateur bands or operations for the following reasons:

- • Ionospheric simulation shows that the optimum frequencies are in the vicinity of 5 MHz for reliable 24 hour propagation over the distances involved, the 3.5-4MHz band experiences too much daytime D-Layer absorption. The 6.765-7 MHz and 9.9-9.995 MHz bands are needed for times of high solar activity. The 7 and 10 MHz amateur bands are not suitable due to very high usage. The 6.765-7MHz band is for ISM so there is minimal potential for causing interference. In the 9.9-9.995MHz band there are only two active licenses, both held by Pacificorp in the Industrial/Business Pool and are they located on the west coast, more than 4000km from the proposed experiment.
- • Wide bandwidths up to 20kHz are required which is not compatible with amateur modes.
- • Interference from amateur signals would invalidate the experimental results.
- • The experiment is commercial in nature, results will be commodified hardware/software. Partners include Kestrel Electronic Design LLC and Aesop Engineering.

I have obtained concurrence from the FAA on the 4.74-4.85MHz and 5.005-5.06 MHz segments (attached). I have reached out to the Air Force Spectrum Management Office concerning the 4.74-4.75MHz segment but have not heard back at this point. After further study, I have concluded that experiment would be viable with 4.75-4.85MHz should there be an objection to the 4.74-4.75MHz segment.

I respectfully request that my application be reconsidered in light of the above information.

If you have any questions/concerns, please contact me as soon as possible so that they can be addressed in a timely manner.

Sincerely,

Warren H. Ziegler, Ph.D.
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Attachments: FAA Concurrence