

Correspondence and explanation of amendment

Hi Joe,

Raytheon has a couple different strains of the flu circulating, so it took me a while to get your questions answered, since the key individuals were caught in the company's epidemic.

Anyhow, here is what I have learned:

MAG Question: What will Raytheon do about the channel conflicts?

Raytheon Response: Raytheon is open to changing its channel selection. The criteria it started with was to pick channels that were close together so that it could accommodate the narrow bandwidth of the antenna. Looking at the chart that the MAG sent, Raytheon will amend its application to seek authorization to operate on the frequencies listed on lines 21-37, 40, 41, 44, and 45. This is a total of 21 channels, but they are all channels that are listed in green on the attached spreadsheet provided by the MAG. Further, the channels are close enough together that the antenna in use can be tuned to do the necessary work.

MAG Question: What are the frequency hop-set constraints?

Raytheon Response: The program can accept one frequency in the hop set. There are no particular hop set constraints. The minimum number of frequencies is one, but then there would be no hopping, and an essential component of the testing is intended to use frequency hopping to protect the security of the communications channel. So, the program requested 21 frequencies (which will be changed) to optimize the data throughput as well as the security of the communication channel.

MAG Question: What is the tuning technique of the equipment?

Raytheon Response: It is a channelized synthesizer.

MAG Question: What program/personnel is Raytheon working with?

Raytheon Response: Within Raytheon, the program is Killer Bee - intended to demonstrate the use of UAS technologies for reconnaissance and also to deliver ordinance. There is no current DOD Contract, so there is no specific sponsor, at the moment. Raytheon can provide additional information on the proposed testing to show why this program of experimentation is expected to be of long term interest to various programs at DOD across several services.

MAG Comment: Long term, the system will require DOD Spectrum certification.

Raytheon Response: The program will meet the DOD spectrum certification requirements and will comply with the DOD 225-400 MHz channeling plan, specifically Annex B for wideband channel use once the testing is completed.

Joe, I hope that the information provided in the Raytheon responses addresses all of the questions posed to you. If there are any additional questions, please let us know as soon as possible, and we will try to get them answers promptly.

Thanks for your assistance with this application.

Best regards,

Anne