

From: Laurie Sussman

To: Behnam Ghaffari

Date: October 29, 2014

Subject: FCC File No. 0737-EX-PL-2014

Message:

1. Please explain the purpose to obtain a nationwide experimental authority.

The unit in question is a weather radar unit. Different continental locations will possess different weather patterns. In order to test the radar under a broad set of operational conditions, it will be necessary to vary the location of testing. It is not possible to predict when and where weather will occur. Because flight testing must be planned months in advance of the actual flight, we will require some flexibility in test location in order to test where weather cells are actually developing. Otherwise, we could plan to conduct a flight test in a specific location only to find that the weather conditions for the test exist 300 miles away. In addition, we must test radar performance in the presence of mountains in order to evaluate the ability of the radar to separate the reflections produced by weather from the reflections produced by mountains. We will therefore have to determine the location of a specific weather cell in the presence of specific mountains. Of necessity, this determination will have to be made immediately preceding the performance of the flight test.

Non-local test flights for the MH-65E program will be conducted over the Great Lakes and over the Gulf of Mexico. The selection of these test areas is driven by the need to test the new radar search and mapping modes in the proper operational environment. We require a radar target that resides in a large body of water in order to test the new search mode, and a unique shoreline to evaluate the new mapping function. Weather cells will be tested en route to the selected test location. Test days will be selected such that weather cells are available en route to the test locations. Minor deviations to the route will be performed in order to facilitate this testing. Future modifications will render these selected locations inadequate, however. For example, future capabilities may require testing in the presence of deep water ocean waves. We would therefore have to move our offshore testing to a location where such waves could be observed. The nature of the system is such that test locations necessary for effective operational testing cannot be accurately predicted. We need to locate testing at those locations where unpredictable natural phenomena occur, or where the necessary natural conditions already exist.

2. The requested frequency band 9460.9-9476.9 MHz (16 MHz) is smaller than the bandwidth 23M6M1X (23.6 MHz). Please correct either one.

The requested bandwidth is 23.6 MHz centered at 9468.9 MHz.

3. Please replace "X" with a different character under the emission designator

Replace the "X" with "N". The emission identifier is therefore 23M6M1N. This agrees with the Emission designator for the RTA-41XX specified in Experimental Radio Station License, Call Sign WG2XLA. This is an experimental license held by Rockwell Collins that covers the RTA-41XX. This designation assumes that the Barker Code modulation applied to the radar waveform does not constitute information.

4. This request is to fulfill the contract number HSCG23-14-C-2DA014. Please provide the POC of the contracting office.

Jerry Low
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