

Rockwell Collins, Inc.
Form 442
Answer to Question 4

Rockwell Collins, Inc. (“Rockwell Collins”) seeks to add four sites to its existing experimental license, WF2XMP. The four added sites, in Tampa, Florida, Denton, Texas, Kansas City, Missouri, and Arlington, Virginia, will be used for over-the-air testing in support of the US Navy Office of Navy Research (ONR) contract N00014-12-C-0363. The scope of this contract is to research higher data throughput capability over the High Frequency (HF) spectrum for mitigating Beyond Line of Sight (BLOS) data transport risks in satellite denied environments.

The transmit sites at these four locations will be used in the over-the-air demonstration of 4G ALE software to analyze HF signal propagation and then choose the best frequency of propagation and the supporting modem data rate and bandwidth for high speed data communication.

The 4G ALE software is designed to maximize the data throughput that can be achieved using HF communication equipment. The data collected by the 4G ALE software will be used to independently verify that the best frequency of propagation and data rates are being selected by the software.

The over-the-air demonstration is the real time verification of performance that has been tested using HF channel simulators in the laboratory.