

Raytheon Technical Services Company
Experimental License Application
Exhibit 1
File Number: 0043-EX-PL-2014

Explanation of Experiment and Details of Operations

Raytheon Technical Services Company is filing this experimental license application to continue the temporary operations authorized under WG9XSO for development of advanced radio systems for the F-15 program.

The initial testing conducted under the STA proved productive, and the program now needs to continue experimentation to more fully develop the radio systems.

Purpose of Test:

The experimentation will continue testing antennas using an outdoor antenna range on the Raytheon facility in Indiana. The test setup uses commercial test equipment to transmit a signal through the antenna under test to a network analyzer. The test measures the phase response of the antenna over several discrete frequencies.

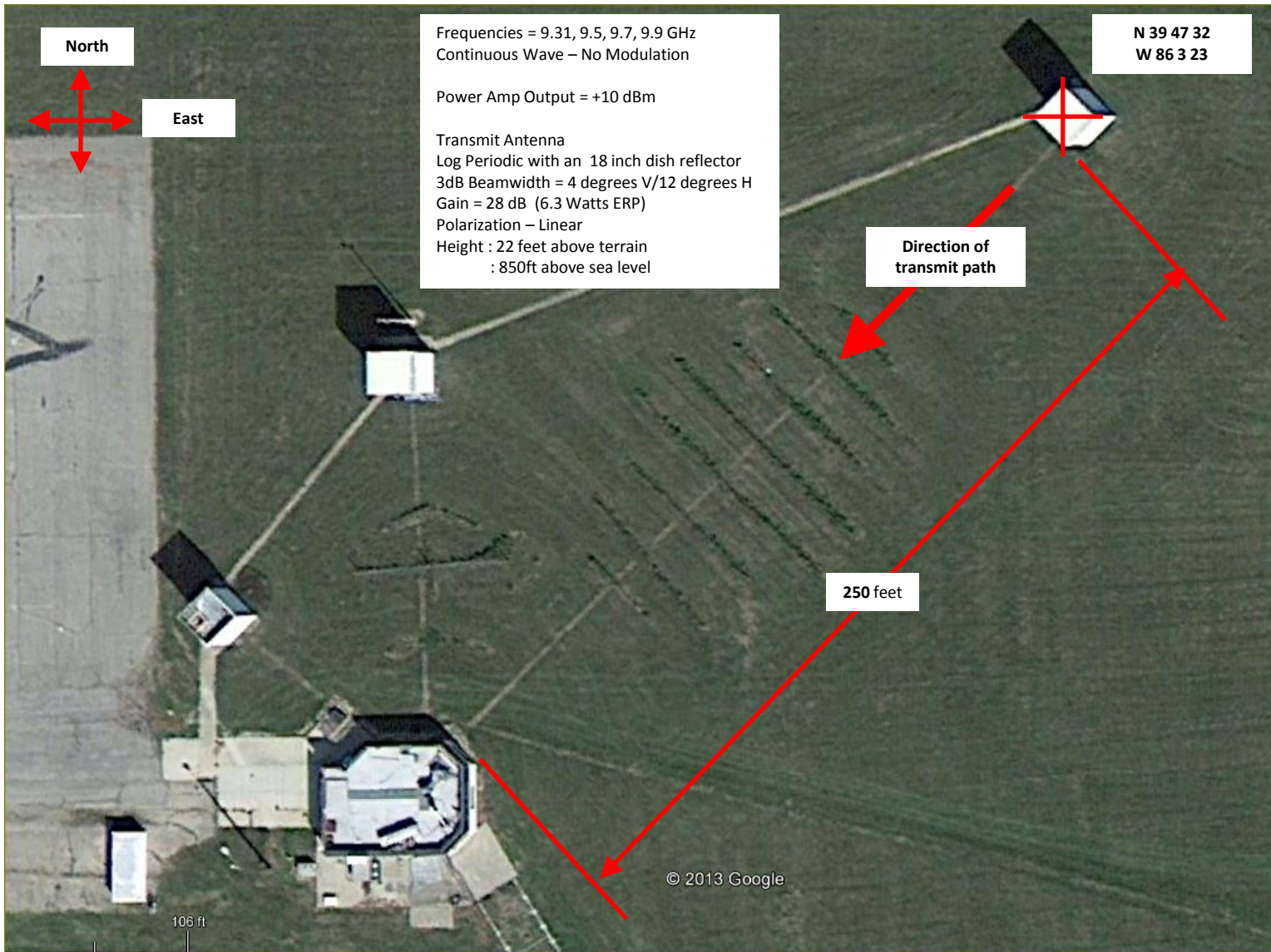
Initial operations showed that the range configuration was a productive way to measure the phase response, and Raytheon now needs to conduct additional testing on these systems.

The testing includes directional antennas that have a narrow beamwidth. The transmission uses 4 degrees vertical beamwidth and 12 degrees horizontal beamwidth. Details are set forth in the diagrams on the next pages.

Conclusion:

This experimental license is needed to continue the fruitful antenna testing conducted under WG9XSO. Ongoing operations are required by Raytheon's customer. For additional information regarding the operations or this application, please contact Raytheon Technical Services Company Spectrum Manager Brian Kavalari, brian_r_kavalari@raytheon.com or 317-306-7793, or Anne Cortez, WFS, alc@conspecinternational.com or 520-360-0925.

Detailed Test Area



Raytheon Indianapolis

