



FFC OET ELS Application

Form 422 QUESTION 4 & 6: Statement regarding Government Contract & Experiment

Description:

Confirmation No. EL533611

File no.: 0127-EX-CN-2018

Submitted by: Paul Seiffert, Principal Engineer, Maritime Applied Physics Corp.

Date: 2/12/2018

To Whom It May Concern:

This application is in support of two US Government contracts for the development of a tethered airborne platform for communications relay equipment. The Research & Development work is needed to test and integrate new communications technologies into the platform and test and demonstrate the feasibility of using the platform to transmit high through-put communications data between sea-going vessels beyond the vessels' normal line of sight.

The two relevant contracts are:

- 1) Defense Advanced Research Projects Agency (DARPA)
  - a. Contract # HR0011-17-C-0105
  - b. Technical Point of Contact: Eric Silberg, NSWC-CD, 301-227-1595, [eric.silberg@navy.mil](mailto:eric.silberg@navy.mil)
- 2) Naval Surface Warfare Center, Dahlgren Division (NSWC-DD)
  - a. Contract# N0017817C9003
  - b. Technical Point of Contact: Christian Rozicer, NSWC-CCD, 202-871-3829, [christian.rozicer@navy.mil](mailto:christian.rozicer@navy.mil)

In the proposed experimental effort, two tethered platforms will be used to carry Kongsberg Seatex A/S Maritime Broadband Radios (MBR-179) radios and the objective is to test radio and platform integration configurations that optimize data throughput and range in the system. Up to three mobile (MBR-144) radios will be located on surface vessels to aid test events. The altitude of the antennas during this testing will not exceed 499 feet due to Federal Aviation Administration (FAA) restrictions. Aircraft safety coordination is being addressed separately with the FAA Eastern Service Center.

This application is built upon approved and active FCC licenses for the same radio/antenna equipment which have been filed by the Original Equipment Manufacturer, Kongsberg Seatex A/S:

FCC File No.: 0149-EX-CM-2017, Call Sign WI2XVB

FCC File No.: 0036-EX-PL-2016, Call Sign WI2XFF

FCC File No.: 0037-EX-CN-2016, Call Sign WI2XNT

FCC File No.: 0275-EX-CN-2016, Call Sign WI2XQG



MBR radios are a phased-array antenna technology that serves as a network link between two or more units. During testing we will demonstrate multiple ship to ship network links to transmit sensor data. A technical presentation and datasheets of the proposed two types of MBR radios to be used are included as exhibits.

The 50km-radius area centered in the Northern Chesapeake Bay at the mouth of the Patapsco River was selected due to the proximity of Maritime Applied Physics Corporation's facility and existing FAA and USCG coordination regarding testing. Within the operating area, tethered-platform-equipped vessels carrying MBR radios will maneuver to test radio performance and antenna heights will be varied up to 499 feet.

Testing is anticipated to commence immediately upon receipt of FCC approval and typically occur during weekdays through the license period. The requested license period is based on the cited contracts' Period of Performance with anticipated contract options executed.

Thank you for your consideration.

Best Regards,

Paul Seiffert  
Principal Engineer, Maritime Applied Physics Corporation