Radar Development and Testing on Government Contract

RE: Form 442 Q4: Government Project Description, Exhibit
File Number: 0550-EX-CN-2019
Confirmation Number: EL675086
Date: July 10, 2019

Systems & Technology Research (STR) is leading efforts on the DARPA radar development project called "Radar Net." We are supporting a Phase 2 development effort.

The contract numbers are FA8750-18-C-0023. The contracting agency is USAF, AFMC, Air Force Research Laboratory, 26 Electronic Parkway, Rome, NY. 13441-4514

The project will culminate in delivery of a radar sensor system, titled SERVAL (Software-defined Efficient Radar Versatile, Affordable, Lightweight), which we seek to conduct flight tests in various key locations in the greater Boston, MA, region. STR is leading the efforts and will oversee testing and operation of the system.

This phase will involve performance testing of our system, requiring a larger footprint in both the Boston, MA area, concurrent with radar operations in the same location as the existing Experimental License (WJ2XXY). A maximum of two aircraft will be outfitted with systems and simultaneously operating in the same region with identical radar equipment. Please refer to file number 0935-EX-CN-2018 for more information on the radar systems.

Additionally, we will be conducting data telemetry via MANET data radio between both the airborne platforms/nodes and two stations on the ground. This will require a minimum of 10 MHz bandwidth centered at 2.39 GHz, where AFTRCC coordination has been obtained for a 10 MHz bandwidth centered at 2.39 GHz. Our request reflects this coordinated result.

Altitudes will still be constrained to < 10,000 ft. The antenna documentation will further describe the notional configuration of the airborne and ground based nodes. The footprints requested are matching those submitted with the radar previously in 0935-EX-CN-2018, as these are all part of the same experiment effort. The ground nodes will also be within the footprint specified, and the node with the directional antenna (79.6 W ERP) will be aimed to communicate with the two aircraft.

This effort will be expected to begin in July, 2019, and extend for up to 24 months or contract end.