



Radar Development and Testing on Government Contract

RE: Antenna Registration Q4: Directional Antenna Information, Exhibit

File Number: 1949-EX-ST-2019

Confirmation Number: EL643956

Date: October 16, 2019

Experiment Overview

Systems & Technology Research (STR) is leading efforts on sensitive radar development project. We are supporting a Phase 1 development effort.

This phase will involve performance testing of our system, requiring a larger footprint in both the Woburn, MA area as well as Dunedin, FL and Newbury, MA area. The radar will be operated pointing to the ocean not the land.

This effort will be expected to begin in January 2020 and extend for up to six (6) months. The primary area of operation will be in the Dunedin, FL, region, with occasional operations in the other areas.

For all computations we consider the highest desired bandwidth and ERP of the systems.

Antenna Parameters:

The antenna is an electronically steered directional antenna with a 3dB azimuth beamwidth of 20 degrees and a 3dB elevation beamwidth of 20 degrees.

Operations / Flight Routes:

For tests to be conducted at Caladesi Island State Park the radar will be radiating in a westerly direction (between 180 degrees and 360 degrees) towards the Gulf of Mexico.

Tests to be conducted at Plum Island the radar will be radiating in an easterly direction (between 160 degrees and 345 degrees).