

Modification to File No. 0115-EX-ML-2013

Call Sign WF2XXH

FRN #0007283716

Exhibit A: Statement in Response to Question 7

The test mission, for the system under development, is to evaluate and demonstrate inflight radar performance that supports an aircraft pilot decision to safely execute approach and landing maneuvers in Degraded Visual Environment (DVE) conditions, such as those caused by fog, rain, or blowing dust (“brownout”). To achieve the mission goals, the plans for this development include the need to “chase” weather conditions that will adequately evaluate the performance of the radar under test. Given that forecasted weather conditions can change rapidly, a test previously planned at airport location X may necessitate relocation to airport location Y, where needed weather conditions are more conducive to a real-time weather performance evaluation. The request for Mobile Continental United States (CONUS) coverage is associated to the aforementioned test mission needed for chasing DVE weather conditions.

The system under development is a Millimeter Wave (MMW) Frequency Modulated (FM) Continuous Wave radar, with a narrow beam width that is scanned over a limited field of view multiple times per second. During the scan, pulses are transmitted and the return from each is processed by a computer to extract the amplitude and the range to the ground. The computer accumulates all of the range and amplitude data over the field of view and displays a three-dimensional representation of the ground to the pilot on a Heads Up or Heads Down display. The field of view is narrow and the system is only in use during the approach phase, thus the flight path will not be in the vicinity of Radio Astronomy Receivers, since these receivers are not located near airports.

The system is being developed at Sierra Nevada Corporation (SNC) in Sparks, NV. The system will be installed on various aircraft for a series of ground and flight evaluations at various CONUS test sites. Ultimately, it is SNC’s intent to have the system certified by the Federal Aviation Authority (FAA), for incorporation into an aircraft sponsor airframe to assist the pilot during the approach phase of a landing in DVE conditions.