

INFORMATION EXHIBIT: "QUESTION 7: WE2XJX 915 MHZ AND 1290 MHZ
MODIFICATION"

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DeTect, Inc. specializes in remote sensing detection technologies and systems for aviation safety, avian survey and monitoring, airspace and ground security, weather detection, and wind measurement, supporting projects worldwide. DeTect is the world leader in development, deployment and support of radar systems for aircraft bird strike avoidance, avian risk assessment and migratory research. The company is a U.S. corporation (Florida) headquartered in Panama City, Florida, USA with divisional offices in Colorado, Kentucky and Virginia and representative offices worldwide. DeTect systems have been deployed at facilities and projects worldwide with a proven record of exceptional performance, reliability and operability and over 100,000 hours of operating experience. Professional staff resources include experienced engineers, scientists, biologists, and planners that are experts in remote sensing, radar engineering, system integration and environmental management.

DeTect has undertaken an effort to make substantial innovative improvements to the technology. Our efforts will improve antenna design and signal processing and reduce unwanted emissions.

The radar wind profiling technique depends on backscattering from clear-air turbulence (caused by atmospheric index-of-refraction fluctuations). These small-scale turbulent fluctuations drift with the wind. The vertically pointed pulse radar computes the average Doppler shift (wind speed) on a gate-by-gate basis. The height range of useful echoes depends on several factors including the product of the transmitted power times the antenna aperture (power-aperture product), the radar frequency, the pulse length, and the degree of atmospheric turbulence. Typically, radar uses a low-side lobe, scanning antenna to form 3 or more beams that are directed vertically and at 12 to 20 degrees off vertical at orthogonal directions. The DeTect radars are usually operated in multiple modes. "Low" modes are designed to acquire data at frequent vertical intervals at lower transmit power, while in "high" modes, a longer pulse is used to achieve higher altitudes at less frequent intervals.

For at least 25 years, radar wind profilers have been in use and manufactured in the United States, at various locations and primarily at four transmit frequencies (50, 404, 449, 915 MHz, and 1290 MHz). The systems are used for pollution studies, aviation support, agricultural research, wind energy support, basic atmospheric research, and storm forecasting. The DeTect wind profiler line consists of modular components with an

advanced antenna design, that enable our systems to be easily tailored and scaled for different applications.

The proposed radar instrument will be produced with the following subsystems: an antenna subsystem consisting of a vertically-looking, high-performance antenna, shielded/tapered to obtain low sidelobes; a transmitter subsystem utilizing a solid-state commercial pulsed radar transmitter capable of adaptive pulse lengths; a specialized low noise receiver subsystem having optimum filtering capability; a signal processing subsystem performing target parameter extraction and identification, and a data processing/communication subsystem for charting, recording, and long-line transmission of results. The antenna and transmitter subsystems will be designed to maximize interoperability among co-located systems.