

Exhibit A

Program Description - The UHF-SAR Prototype Radar is being developed as a replacement for the FOPEN radar system. This new design represents major advances in the digital generation of complex waveforms while, at the same time, simplifying the receiver chain and eliminating obsolete components. The design of the UHF-SAR Prototype Radar is intended to be a foundation for several system variations that may be developed for future applications.

The system utilizes a combination of custom hardware and COTS components. The radar antenna and the transmitter are commercial items. Other commercial items include computer circuit boards and Analog-Digital converters.

The frequency band used by these types of radar is shared with a variety of other users. The transmitted signal uses frequency notching techniques developed for use with FOPEN to prevent the radar from interfering with other users. The signal that is transmitted is custom-tailored for the area where each flight takes place to avoid interference. Coordination is done with other users to identify any frequencies where interference could take place during flight planning. Frequency ranges where interference could take are eliminated from the transmitted signal.

For the demonstration flights, the system will be installed on a Sabreliner 60 aircraft. The antenna for the radar will be fixed mounted on the aircraft to look out one side of the aircraft while being pointed well below the horizon.

The altitudes to be used for the demonstration flight tests will be bounded by upper limit of 29,000 feet MSL dictated by FAA flight restrictions applicable to this aircraft and a lower limit of 12,000 feet AGL, which is representative of a minimum safe operational altitude. As a result of these limited altitudes plus the downward look of the antenna, signal radiation is limited to a relatively small geographic area.

Objectives – The objective of these tests is to validate the performance of the new radar system design. Data collected from these test flights will be processed into radar images. Quality measurements of these images will be made and compared with existing benchmarks. Any areas for improvement will also be identified.

Promise of Development – The new system will address obsolescence issues and update the current FOPEN design to the more modern and flexible Modular Electronics Unit based design as well as validation of technical objectives. The enhanced waveform generation capability will allow ready adaptation to the RF environment of other users to allow these types of systems to co-exist with the other users.