

Description of Experiment

University of Iowa, Operator Performance Laboratory, respectfully requests a new experimental license. It seeks to develop unmanned aircraft traffic management systems that require ground based tracking of low flying objects, such as unmanned aircraft. We propose to use Fortem DAA-R20 radar for tracking airborne objects within nearby airspace and correlation of those objects with flight plans of known participating aircraft. The air traffic management system will flag objects that cannot be correlated to known participants. Overall, the proposed air traffic management system will enhance flight safety for manned and unmanned aircraft.

The system has been designed to enable UAS operators to detect and avoid other airborne vehicles within the envelope of the ground based radar, thus increasing safety of flight for all participants.

Because there are no existing services for low-level object-tracking within this environment, the goal of the project is to determine whether the radar technology is suitable for short-range, low-altitudes air traffic management. If the results are positive, this project will help to specify the most important requirements that products derived from this prototype would need to fulfill.