U.S. Department of Transportation
Federal Aviation Administration

Technical Center

Atlantic City Int'l Airport
New Jersey 08405

November 9, 2007

James R. Burtle
Experimental Licensing Branch Chief
Office of Engineering and Technology
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Dear Mr. Burtle:

This letter is meant to serve as confirmation of the Federal Aviation Administration's (FAA) involvement in sponsoring a demonstration and technology evaluation project of Trex Enterprises' FODFinder Detection System. The presence of foreign objects in the airport environment presents a major hazard to aircraft safety. Foreign object debris (FOD) is any substance, debris, or article alien to the vehicle or system would potentially cause damage. The presence of FOD can be the result of the loss of parts from aircraft, pavement cracking, wildlife, ice and salt accumulation, and construction debris. Identification of FOD at airports requires regular observation of airport surfaces by airport personnel, or by chance recognition by aircraft pilots operating on airport pavement. Removal of such FOD is only triggered by those actual observations.

In 2005, the Federal Aviation Administration (FAA), in cooperation with the University of Illinois, conducted a preliminary short term evaluation of an automated FOD detection system at the JFK International Airport. Through the use of millimeter wave radar, this system demonstrated that it was capable of detecting objects as small as a two-inch long bolt on the pavement surface. As a result, it was determined that this type of system could easily provide airport personnel with immediate FOD alerts, and even provide specific information on where the object is located. The conclusions from the preliminary research effort recognized successful detection of FOD under many operational and environmental conditions, but also identified a need for the FAA to conduct further evaluation of FOD detection systems at airports on a longer term basis, under varying seasonal conditions.

The FAA is currently developing plans for further evaluation of the FODFinder system, and is very eager begin real-world operational testing of their technology as soon as it is completed, and ready for deployment. During our evaluation activity, the system will be positioned at various large airports for demonstration purposes, as well as for evaluation

by the University of Illinois. During these evaluations, key operational characteristics of their FOD detection system will be evaluated, documented, and summarized into a final evaluation document, and then later included in an official FAA Advisory Circular that will provide our nations airports with the guidance material they need when selecting a FOD detection system for their airport. Specific issues to be looked at include ability to located FOD items, accuracy, speed, and capability to trigger alerts to airport personnel. Installation and evaluation of these systems is expected to continue through 2008, with final documentation immediately following. The FAA is excited about this technology, and is very eager to complete the research as soon as possible, so that systems like these can be deployed in a timely manner.

If the results of this evaluation involving the FODFinder unit are successful, it is very likely that the performance characteristics of their specific system will be included in an FAA Advisory Circular, thus making acceptance of their system viable for any Part-139 Certificated US Airport. Initially during our evaluations, the FAA or Trex may periodically position the FODFinder unit at the following airports, either for the purposes of data collection or for demonstration:

Zamperni Field Airport, Torrance, CA	Chicago's O'Hare International, IL
Chicago's Midway Airport, IL	Chicago's Dupage Airport, IL
Los Angeles International Airport, CA	Portland International Airport, OR
Atlantic City International Airport, NJ	TF Green State Airport, Providence, RI
Seattle-Tacoma International Airport, WA	San Diego International Airport, CA

The FAA is very excited about this new technology, and is very eager to conduct the research necessary to get this type of system into our specifications so that our nations airport's can begin putting them to use. To help support the FAA's mission to promote aviation safety, we ask that your office please consider expediting the grant of authority for Trex and the FOD Finder System. We greatly appreciate any assistance you may be able to offer in this area.

If you have any questions, or require further information on the FAA's FOD Detection Research, please feel free to contact me at 609-485-4989 or via email at Jim.Patterson@faa.gov. Thank you in advance for your cooperation.

Respectfully,

James Patterson Jr.
Project Manager
Airport Safety Technology R&D Section
AJP-6311