

October 17, 2010

**Statement in Support of
Trex Enterprises' Petition for Rulemaking, RM-11612**

Sent to:

Best Copy and Printing, Inc.
Portals II,
445 12th Street, SW, Room CY-B402
Washington DC 20554

Dear Sirs:

I am writing in support of Trex Enterprises' petition for rulemaking. I am presently leading, as the performing partner for the Federal Aviation Administration (FAA), a performance assessment of foreign object debris (FOD) detection technologies. This effort is funded through the FAA William Hughes Technical Center AGP 6311 program in airport safety. The performance assessments I have performed have included radar and optical technologies for FOD detection. The performance assessments have been completed at several airports including Providence, T. F. Green International Airport, Boston International Airport, O'hare International Airport, Honolulu International Airport, and the Carlsbad/Palomar Airport. The performance assessment program has placed over 15,000 FOD items on airport surfaces in tests. A major part of the assessment activities has been developing a thorough understanding of the technologies involved. Further, activities in this assessment have been supported by a thorough review of FOD related safety issues at airports and the economics of FOD damage and FOD removal.

The foundation for my strong support for this petition is that FOD on airport surfaces is a critical safety issue and a preventable hazard that affects both the safety and economics of air travel in the United States. FOD issues have been the subject of two recent FAA Advisory Circulars, a recent study by the Airports Cooperative Research Program, and major action at the recent ICAO Triennial Congress and major action by European regulatory agencies. In all of these actions, the availability of new technologies for FOD detection has been a major focus for the development of safety management systems. In summary, there is a clear need for advanced detection technologies to address a critical international problem, and the availability of the 78-81 GHz band for FOD detection is a critical need for the improvement of safety at airports.

Considering the criticality of the FOD related safety issues, I agree that it is imperative that the FCC adopt the rule changes proposed by Trex so that new radar technologies can

3230 Newmark Civil Engineering Laboratory, 205 North Mathews, Urbana, Illinois
61801-2352

FAX: (217) 333-9464

be used to detect foreign object debris (FOD) on runways and other airport surfaces as a radiolocation service in the 78-81 GHz bands.

To provide further justification for my support, it may be useful to review current FOD management approaches at airports. FOD inspections are required as part of airport operations. These inspections are now conducted visually, often with low or no ambient light because of scheduling to accommodate runway use requirements. The visual observation schedules are infrequent, not designed to prevent the kind of disaster represented by the loss of the Air France Concorde, which encountered FOD and led to a crash with deaths on the aircraft and on the ground. The result is a situation that can benefit immediately from application of advanced detection technologies. The use of radar technology, as proposed by Trex, can improve FOD management and ensure that visual observations are supplemented by advanced technology to detect FOD more effectively and efficiently. I agree with Trex in their contention that unlicensed Part 15 operation is not appropriate for radiolocation in the 78-81 GHz band for several reasons. The application is a critical safety issue and limited access to the specified bandwidth will limit interference in any use of this part of the spectrum. It is clear that operation of the Trex radar technology is for critical safety applications and exceeds the Part 15 necessary bandwidth limit.

In conclusion, I urge the FCC to adopt Trex Enterprises' proposal. The outcome will be the availability of new technology to address critical airport safety issues at a time when the FAA is placing new emphasis on FOD management and the world is recognizing the importance of advanced technologies in the management of this critical safety issue.

Sincerely,

Edwin E. Herricks
Professor
Coordinator, Airport Safety Management
Center of Excellence for Airport Technology