

Effective Prevention of Foreign Object Damage (FOD) at Airports

By: Christopher S. Eversmann, PE, CM, Director, Jim Hamilton – LB Owens Airport (CUB)

For many who have a background that includes military aviation experience, prevention of Foreign Object Damage (FOD) to aircraft, most especially aircraft engines, is a common, recognized, standard way of doing business. Any veteran of a military aviation organization can tell you about frequent, regular “FOD walks” in which all hands, from the newest private to the most senior officer, form a line, shoulder-to-shoulder, and walk the pavement in order to see and pick up any foreign object on the pavement. The objective of this effort is to ensure that pavement is clean and free of anything that could be ingested into an engine or blown by prop wash and cause aircraft damage or injury to personnel on the apron.

The military system supports this approach which, if properly conducted, is highly effective in protecting the costly aircraft that comprise the military fleet. However, most civilian airports lack the manpower and time to employ this method. As such, an alternative approach should be found and employed. I use the word “should” because FOD prevention is not necessarily recognized as a concern in civilian airport settings: and, if recognized as a priority, not to the degree that is aggressively attacked in the military setting.

Do you have a FOD problem? Yes, every airport (even an airfield with a grass strip) has a FOD problem. A more appropriate question is, “do you have an effective, ongoing program by which you eliminate this problem?” Factors which cause FOD to be a problem include:

- Ineffective or no FOD prevention program
- Pavement deterioration
- Un-vegetated, rocky, sandy soil
- Infrequent pavement inspections
- Poor housekeeping
- Unrestricted airside ground vehicle traffic

These factors are pretty straightforward and can be easily addressed. Among the solutions to problems with FOD are:

- Develop and implement a prevention program of inspection and maintenance / housekeeping that is formal (i.e. – written down), involves multiple airport stakeholders (tenants and FBOs), and is continuous.
- Inspect, maintain, and program your aging pavement for improvement.
- Mitigate bare ground that is a source for sand and grit.
- Inspect your pavement frequently.
- Implement good housekeeping procedures such as quarterly pavement sweeps.
- Control and channelize airside ground vehicle traffic.

The results are worthwhile. For more information on FOD prevention and the efforts of the South Carolina Aviation Safety Council to make South Carolina a FOD-free state, please join us for a breakout session on this subject at the 2012 South Carolina Aviation Association Conference in Myrtle Beach this February.