

25th National Aerospace FOD Prevention Conference

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Establishing an Effective FOD Program



Hosted By: National Aerospace
FOD Prevention, Inc.

Co-hosted By: Delta Airlines
Hatfield - Jackson
airport

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Overview

- 3 Step process
- Basic Elements of FOD Prevention
- Preventive Practices
- Best practices

Establishing an Effective FOD Program Steps

- The first step in establishing an effective FOD program is to:
 - Understand what FOD is and what effect it has on your bottomline in term of production, cost, schedule and customer satisfaction.

Establishing an Effective FOD Program

- **What is FOD**
- **Foreign Object Debris (FOD):** A substance, debris or article alien to a vehicle or system which would potentially cause damage.
- **Foreign Object Damage (FOD):** Any damage attributed to a foreign object that can be expressed in physical or economic terms which may or may not degrade the product's required safety and/or performance characteristics.

Establishing an Effective FOD Program Steps

➤ Establishes a standard to prevent foreign object damage (FOD) to aerospace products being designed, developed, manufactured, assembled, operated, repaired, modified, refurbished and maintained.

-- AFI 21-101, NAS 412, Local policy

Establishing an Effective FOD Program Steps

- **Identify FOD Critical Area:** Any area where flight hardware is in place and exposure to foreign objects would potentially cause a system or product failure due to deterioration, malfunction or damage.

Establishing an Effective FOD Program

- Most FOD can be attributed to poor housekeeping, facilities deterioration, improper maintenance or careless assemble and inadequate operational practices.

Establishing an Effective FOD Program

--An effective FOD prevention program identifies potential problems, corrects negative factors, provides awareness, effective employee training, and uses industry "lessons learned" for continued improvement.

Basic Elements

- Know your role and responsibilities
- FOD Prevention Training
- Early design consideration for FOD prevention, resistance to damage, foreign object entrapment, etc
- Assembly sequencing and maintenance/manufacturing techniques that include proper care and the use of assemble/maintenance equipment and parts protective devices
- Full leadership support, top down approach
- Housekeeping
- Control of tools and personal items
- Control of hardware/consumables
- Measuring techniques for analysis, trending and feedback
- Incident investigation/reporting, "lessons learned"
- Control of hazardous material
- Awareness/Employees Feedback

Preventive Practices

- Follow procedures.
- Practice good housekeeping, "Clean –As-You-Go."
- Account for all tools, hardware and equipment at specific intervals.
- Use x-ray, borescope, and other state-of-the-art equipment to inspect inaccessible areas.
- Provide worker awareness to FOD causes.
- Establish designated storage areas for ladders, hoses, tool boxes and other work aids.
- Industry feedback through lessons learned and benchmarking. Share information from this conference.
- Some agencies provide visual inspections upon job completion by designated "inspectors."
- Personnel should be required to have completed FOD training before being given access to designated areas where FOD may occur

FOD Best Practices

- Established procedures to perform FOD roll over checks on vehicles at the FOD check points
- Created a traveling FOD board, routinely placed around the base to increase awareness
- Ensure FOD posters are regularly shown on the local "Commander's TV channel"
- In addition to daily FOD walks and spot inspections, schedule wing FOD walks to increase awareness across base
- Increased the number of sweepers dedicated to the flightline area with low profile pickup heads