

DAY THREE Toolbox Talk

Foreign Object Debris

Foreign Object Debris (FOD) at airports includes any object found in an inappropriate location that, because of being in that location, can damage equipment or injure personnel. FOD includes a wide range of material, including loose hardware, pavement fragments, catering supplies, building materials, rocks, sand, pieces of luggage, and even wildlife. FOD is found at terminal gates, cargo aprons, taxiways, runways, and run-up pads.

The three main areas that require specific attention are:

- Runway FOD - this relates to various objects (fallen from aircraft or vehicles, broken ground equipment, birds, etc.) that are present on a runway that may adversely affect fast-moving aircraft (during take-off and landing). Runway FOD has the greatest potential of causing damage.
- Taxiway/Apron FOD - while this type of FOD may seem less harmful than the previous one, it should be noted that jet blast can easily move small objects onto the runway.
- Maintenance FOD - this relates to various objects, such as tools, materials, or small parts) that are used in maintenance activities (e.g., aircraft maintenance, construction works, etc.) and can cause damage to aircraft.

FOD can cause damage in several ways, the most notable being:

- Damaging aircraft engines if ingested.
- Cutting aircraft tyres.
- Lodging in aircraft mechanisms preventing them from operating properly.
- Injuring people after being propelled by a jet blast or prop wash.

The resulting damage is estimated to cost the aerospace industry \$4 billion a year.

FOD-prevention and clearance are the responsibility of all airport users; however, specific responsibility must be allocated to appropriate persons who must be suitably trained and supervised. Quality assurance is an essential tool to ensure that responsible organisations and personnel carry out their allotted tasks correctly.

Defences against FOD include the following activities:

- Regular and frequent inspection of the airfield, including aircraft manoeuvring areas and adjacent open spaces.
- Suspension of runway operations upon notification to ATC about FOD on or near the runway until FOD has been removed and the runway inspected, as necessary.
- Regular and frequent inspection of the airfield buildings and equipment and immediate repair or withdraw from service of items likely to create FOD.
- Inspection of the parking gate to ensure that it is free of FOD, including ground equipment, and of ice, snow, or other material capable of reducing braking action (normally the responsibility of the airline representatives).
- Removal of FOD as soon as it is identified.
- Use of constant inspection systems (see subsection below for details).
- Implementing a FOD control program (see subsection below for details).

Setting up a FOD Program	https://www.aerosweep.com/what-is-fod-fod-control
Foreign Object Debris and Damage Prevention	http://www.boeing.com/commercial/aeromagazine/aero_01/textonly/s01txt.html
Don't FOD-get about it	https://www.bne.com.au/blog/behind-scenes/foreign-object-debris