

**BY ORDER OF THE COMMANDER
WRIGHT-PATTERSON AIR FORCE
BASE**

**WRIGHT-PATTERSON AIR FORCE
BASE INSTRUCTION 21-101**

5 AUGUST 2022



Maintenance

***FOREIGN OBJECT DAMAGE AND
DROPPED OBJECT PREVENTION
PROGRAM***

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms are available for downloading or ordering on the e-publishing website at www.e-Publishing.af.mil

RELEASABILITY: There are no releasability restrictions on this publication

OPR: 88LRS/LGRMX

Certified by: 88LRS/CL
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Supersedes: WRIGHTPATTERSONAFBI 21-101,
13 January 2021

Pages: 10

This instruction supplements AFI 21-101, AFMCSUP, Addendum A, *Non-Standard Organization (NSO) Logistics Maintenance Management*, Chapter 5.8, Foreign Object Damage (FOD) Prevention Program and Chapter 5.12, Dropped Object Prevention (DOP) Program. AFI21-101, AFMCSUP, Addendum A establishes policies and outlines reporting procedures for FOD and DOP. This instruction explains responsibilities pertaining to all personnel (military, civilian and contractors) working in, around or traveling through areas near aircraft, support equipment, engines or engine components on Wright-Patterson AFB. The 445 AW will follow AFRC directives and their Wing FOD/DOP Instructions. All 445 AW FOD/DOP reporting will be provided to the 88 ABW FOD/DOP Program Manager as a courtesy. This publication may be supplemented at any level, but all supplements must be routed to the Office of Primary Responsibility listed above for coordination prior to certification and approval. Refer recommended changes and questions about this publication to the Office of Primary Responsibility listed above using the Air Force Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate chain of command. The authorities to waive wing/unit level requirements in this publication are identified with a Tier (“T-0, T-1, T-2, T-3”) number following the compliance statement. See Department of the Air Force Manual 90-161, *Publishing Processes and Procedures*, Attachment 10, for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the Publication OPR for non-tiered compliance items. Ensure all records created as a result of processes prescribed in this

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SUMMARY OF CHANGES

Paragraph 4.3 changed to restrict wear of hats/berets on the airfield with the exception of conducting official protocol duties.

Chapter 1

GENERAL

1.1. Overview. The primary purpose of this instruction is to provide guidance and outline procedures for an effective FOD/DOP Program on Wright-Patterson AFB. Effective prevention of FOD to aircraft and equipment depends upon support from every individual who has any contact with aircraft/equipment. Individual involvement in the program will improve readiness and save resources.

1.2. Objective: The objective of the FOD/DOP Program is the elimination of FOD potential or dropped objects on Wright-Patterson AFB. AFI 21-101, AFMCSUP, Addendum A; para 5.8.3.6.1 et seq, lists some causes of FOD and practices that will eliminate damage. Each individual needs to become aware of FOD or dropped object causes and prevention measures and work closely with the Unit FOD/DOP Monitor to ensure potential hazards are immediately reported and corrected.

Chapter 2

ROLES AND RESPONSIBILITIES

2.1. The 88 ABW Vice Commander shall:

2.1.1. Will ensure an effective FOD/DOP Program is established and chair a quarterly FOD/DOP Committee Meeting in conjunction with the Airfield Operations Board. The Wing Commander or OSS Commander will chair a FOD/DOP meeting in the absence of the Vice Commander.

2.1.2. Will appoint the 88 ABW FOD/DOP Prevention Program Manager.

2.2. Unit Commanders (or equivalents) shall:

2.2.1. Unit Commanders (or equivalents) of personnel who work in, around, or travel through operational areas of the flight line will appoint a Unit FOD Monitor in writing and provide a copy to the 88 ABW FOD/DOP Program Manager. EXCEPTION: Units only involved with Distinguished Visitor (DV) movement will not have to appoint a Unit FOD Monitor but will be required to comply with WPAFBI 13-213, *Airfield Driving*, Chapter 5 instructions, while attending to DV requirements.

2.2.2. Commanders of units with maintenance personnel, safety, civil engineering, airfield management and security forces are required to attend the Quarterly FOD/DOP Committee Meeting.

2.3. The 88 ABW FOD/DOP Program Manager shall:

2.3.1. Manages the 88 ABW FOD/DOP Program and provides assistance as outlined in AFI 21-101, AFMCSUP, Addendum A, para 5.8 et seq.

2.3.2. Provides a completed FOD/DOP report, monthly, via the HQ AFMC/A4M Propulsion Management SharePoint site: <https://usaf.dps.mil/teams/22355/Lists/ALC%20FOD%20Incident%20Report/Standard%20View.aspx>.

2.3.3. Investigates and reports all required FOD/DOP incidents to the AFMC FOD/DOP Program Manager. Provides an initial FOD/DOP report via the HQ AFMC/A4M Propulsion Management SharePoint site, <https://usaf.dps.mil/teams/22355/SitePages/Home.aspx>, within 24 hours of occurrence. A follow up report will be required every 45 days until closeout. The FOD/DOP report format listed in **Attachment 2** shall be followed. On transient aircraft, the FOD/DOP Program Manager shall notify the owning organization within 24 hours.

2.3.4. Ensure the organization FOD/DOP Program Manager provides a final report via the HQ AFMC/A4M Propulsion Management SharePoint site at <https://usaf.dps.mil/teams/22355/Lists/ALC%20FOD%20Incident%20Report/Standard%20View.aspx> within two duty days of completing the FOD investigation and collecting all data. Reports shall be maintained for a minimum of 24 months (may be electronic). The FOD report format provided in AFI 21-101, AFMCSUP, Addendum A, Attachment 2 shall be followed.

Chapter 3

PROCEDURES

3.1. FOD/DOP Reporting and Investigating Procedures.

3.1.1. Upon discovery of a suspected FOD/DOP incident on any transient aircraft the 88 LRS/LGRMCX Transient Maintenance Section will:

3.1.1.1. Notify the Maintenance Operations Center (MOC), Wing FOD/DOP Program Manager, Airfield Management Operations and Wing Flight Safety to provide preliminary details.

3.1.1.2. Upon positive determination, but NLT 24 hours after the occurrence, immediately notify the aircraft owning organization FOD/DOP Program Manager.

3.1.1.3. All FOD incidents with the exception of minor sand nicks or scratches will be reported to the AFMC FOD/DOP Manager as soon as the damage is known but NLT 24 hours after occurrence using AFI 21-101, AFMCSUP, Addendum A, Attachment 2. All DOP incidents will be reported IAW requirements identified in AFI 21-101, AFMCSUP, Addendum A, para 5.12 et seq, using the report format provided in AFI 21-101, AFMCSUP, Addendum A, Attachment 3.

3.2. Wright-Patterson AFB Tenant Units.

3.2.1. Will comply with their MAJCOM directives and also this guidance.

3.2.2. Notify the host Wing MOC and FOD/DOP Program Manager and Airfield Management Operations upon discovery of a FOD/DOP incident.

3.2.3. When completed, forward to the host Wing FOD/DOP Program Manager copies of all reporting and investigation documents.

3.3. FOD Walks.

3.3.1. To ensure compliance with AFI21-101, AFMCSUP, Addendum A, units with facilities in close proximity to the airfield or who have personnel who work within the airfield will perform FOD walks as assigned in this instruction.

3.3.2. FOD walks will be conducted twice per week, unless designated otherwise or cancelled due to inclement weather conditions (e.g., temperature/wind chill below freezing, sleeting, or raining). If the FOD walk is cancelled it should be rescheduled the next available work day when weather conditions permit.

3.3.3. Designated FOD walk areas are as follows:

3.3.3.1. FOD walks on the West Ramp Parking Area will be conducted by 445 AW personnel and will comply with AFRC directives and 445 AW FOD prevention instructions.

3.3.3.2. 88 LRS/LGRMCX Transient Maintenance/Aerospace Ground Equipment will conduct FOD walks two days per week and will be responsible for the following areas:

3.3.3.2.1. Echo, Foxtrot, Golf and Hotel row aircraft parking areas. These areas are to be rotated ensuring at least two areas are covered per week.

- 3.3.3.2.2. Delta row aircraft parking areas from building 93 to the Echo aircraft parking area will be monitored and walked as necessary prior to any aircraft parking.
- 3.3.3.3. FOD walks within the National Airborne Operations Center aircraft parking area (N-1) and from Building 152 to the India row aircraft taxi area will be conducted by 595th AMXS Personnel.
- 3.3.3.4. 88 LRS/LGRDCP Air Freight Personnel will conduct FOD walks from Building 143 to the south end of the India row aircraft parking area.
- 3.3.3.5. 88 LRS/LGRFC Fuels Operations Personnel will conduct FOD walks within the fuel truck parking area and on the access road from the fuel truck parking area to Taxiway B.
- 3.3.3.6. If necessary FOD Boss units will be used to ensure all debris is removed from aircraft maintenance and operation areas.
- 3.3.4. Supervisors from each organizational area must inspect assigned FOD walk areas to ensure compliance.
- 3.3.5. Civil Engineering Personnel will perform sweeping and magnetic bar operations in aircraft parking areas, taxiways and on runways. All ramp sweeper and magnetic bar operations are coordinated and controlled by Airfield Management Operations.

Chapter 4

DAILY OPERATIONS

4.1. Immediately upon entering the airfield. All vehicle operators will conduct a FOD check of the vehicle. Wright-Patterson's airfield is defined as runways, taxiways, aircraft parking ramps, access, service and perimeter roads, hangars, buildings and all open areas immediately adjacent to runways, taxiways and aircraft parking ramps. **EXCEPTION:** Emergency vehicles responding to actual emergencies and alert vehicles responding to an alert. Once the actual emergency or alert is over, a tire FOD check will be accomplished prior to continuing on.

4.1.1. Vehicle operators must make every attempt to stay on paved surfaces and avoid driving on unimproved surfaces (e.g., dirt or grass). If driving on unimproved surfaces is required, conduct a FOD check upon exit of these areas or returning to paved surfaces.

4.1.2. At a minimum, a FOD check will consist of the following:

4.1.2.1. A roll-over inspection of vehicle tires.

4.1.2.1.1. Stop the vehicle, check/remove debris from all four tires, and pull the vehicle forward 18 to 24 inches, then once again check/remove debris from all four tires.

4.1.2.2. A visual check to ensure all external vehicle components are secured. Secure any/all items loaded on payload vehicle, including all tie down device loose ends such as chains, ropes, packaging or other item that may become dislodged during movement while on the airfield. Vehicle operators towing support equipment onto the airfield will also remove FOD from the equipment tires.

4.1.2.3. An inspection of the interior and cargo bed areas of vehicle to remove or secure all foreign material that could pose a FOD hazard.

4.1.2.4. A thorough walk around of the vehicle to check for damaged, loose, or worn parts.

4.1.3. Vehicle operators encountering FOD on the airfield will stop and collect it. Large amounts of debris will be reported to AMOPS or the MOC.

4.2. FOD Containers. All vehicles normally operated on the flight line will be equipped with FOD containers. Containers will be tailored to the vehicle it is installed in/on and approved by the FOD/DOP Program Manager prior to use.

4.3. Hats/berets. Will not be worn on the airfield. **EXCEPTION:** When conducting official protocol duties on the airfield, the senior officer present, or his/her representative, will consider risk factors including weather and proximity to operating aircraft engines and dictate if hats are to be worn for a particular occasion (this does not include baggage and aircraft support personnel). No individual wearing a hat, regardless of rank, will pass within 25 feet of an operating engine.

4.4. Headgear/clothing authorized for extreme cold weather protection. May be worn; however, every effort must be made to prevent such headgear from coming loose during duty performance. Special attention to the FOD potential and safety of personnel will be prime considerations when determining extreme cold weather clothing authorizations.

4.5. Badges. Such as Restricted Areas Badges will be secured with a subdued non-metallic cord or plastic armband and will be removed when performing intake/inlet/exhaust inspections if personnel physically enter these areas. Metal insignia/badges will not be worn on the airfield.

4.6. Loose fitting items. All personnel are prohibited from wearing loose fitting items that could be ingested by operating jet engines. All personnel entering fighter type aircraft cockpits will ensure personal items are properly secured to prevent FOD. Wigs, hairpieces, metal hair fasteners, earrings, or any other jewelry/loose items that may fall off without notice, are not authorized on the flightline.

4.7. Coveralls. Individuals must wear coveralls without pockets or buttons (i.e., bunny suit) when physical entry is needed to perform maintenance or inspection of intake or exhaust areas of aircraft engines.

4.8. Inspections of 88 ABW/CE snow removal equipment. Will be conducted at the end of each shift or if equipment malfunction is suspected. Anytime hardware or equipment items are discovered missing within aircraft operations or maintenance areas, the following notifications will be initiated:

4.8.1. Airfield Management Operations (all areas).

4.8.2. 88 MSG/LGRMCX Transient Maintenance Operations Control Center (East ramp aircraft maintenance and parking areas).

4.8.3. 445 AW Maintenance Operations Control Center (West ramp aircraft maintenance and parking areas).

4.8.4. 595th AMXS Operations Center (East ramp parking location N-1).

4.9. The following information will be provided:

4.9.1. The airfield location and time of equipment operation prior to the missing item discovery.

4.9.2. A description of the item missing.

4.9.3. Once notified, the responsible agency will perform the appropriate search to ensure areas remain free of foreign objects.

4.10. Unit FOD Monitors or supervisors. Will ensure that all personnel who work in and around or travel through operational areas of the airfield receive an initial FOD prevention briefing.

4.11. Escorts of visiting personnel. Will ensure FOD prevention measures are taken.

Chapter 5

DOP PROGRAM

5.1. DROPPED OBJECT. ANY aircraft part, component, surface, low observable (LO) coating exceeding 8 inches in any dimension or other item lost during aircrew operations (unless intentionally jettisoned) from engine start to engine shutdown. Inadvertently released munitions are not considered dropped objects and will be reported IAW DAFI 91-204, *Safety Investigations and Reports*, 10 March 2021. Note: Missing Chaff/Flare/Decoy end-caps are not reportable dropped objects.

5.1.1. As additionally discussed above:

5.1.1.1. The WG/CV appoints the Wing FOD/DOP Program Manager.

5.1.1.2. The FOD/DOP Program Manager will investigate each dropped object incident.

5.1.1.3. Units will follow MAJCOM DOP Program reporting procedures.

5.1.1.4. Transient Aircraft. The host Wing FOD/DOP Program Manager will be responsible to investigate dropped objects from a transient aircraft.

5.1.1.4.1. The host Wing FOD/DOP Program Manager will provide the home station Wing DOP Manager with sufficient data to generate a report for trending and tracking purposes.

CHRISTOPHER B. MEEKER, Colonel, USAF
Commander

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFI 21-101_AFMCSUP, Addendum A, *Non-Standard Organization (NSO) Logistics Maintenance Management*, 10 November 2020

AFI 33-322, *Records Management and Information Governance Program*, 28 July 2021

DAFI 21-101, *Aircraft and Equipment Maintenance Management*, 16 January 2020

DAFI 91-204, *Safety Investigations and Reports*, 10 March 2021

DAFM 90-161, *Publishing Processes and Procedures*, 15 April 2022

WPAFBI 13-213, *Airfield Driving*, 26 February 2016

Prescribed Forms

None

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

AFRC—Air Force Reserve Command

AMOPS—Airfield Management Operations

AMXS—Aircraft Maintenance Squadron

DOP—Dropped Object Prevention

DV—Distinguished Visitor

FOD—Foreign Object Damage

LO—Low Observable

LRS—Logistics Readiness Squadron

MOC—Maintenance Operations Center

NSO—Non-Standard Organization

RDS—Records Disposition Schedule

T/A—Transient Alert/Aircraft