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OFFUTT AFB**

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Maintenance

***FOREIGN OBJECT DAMAGE (FOD)
/DROPPED OBJECT (DO) PREVENTION
PROGRAM***

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This publication implements Air Force Instruction (AFI) 21-101, *Aircraft & Equipment Maintenance Management*. It provides Foreign Object Damage (FOD)/Dropped Object Prevention (DOP) guidance and procedures for Offutt Air Force Base (AFB), Nebraska. It applies to all units assigned, attached, deployed or performing temporary duty on Offutt AFB. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual 33-363, Management of Records, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at <https://www.my.af.mil/gcss-af61a/afirms/afirms/>. Contact supporting records managers as required. Send suggested comments, questions, and improvements to the publication on an AF Form 847, *Recommendation for Change of Publication*, through 55 CS/SCXKP, 201 Lincoln Highway, Suite 206, Bldg 41, Offutt Air Force Base, Nebraska, 68113. The reporting requirements in this publication are exempt from licensing in accordance with AFI 33-324, *The Information Collections and Reports Management Program; Controlling Internal, Public, and Interagency Air Force Information Collections*. Para 2.11.1 applies.

SUMMARY OF CHANGES

This interim change implements new guidance recommended from previous LCAP Inspection personnel. This update implements specific flightline clothing procedures.

1. General FOD Policies and Procedures.

1.1. Operating Locations (OL) will participate in and follow host base FOD programs: however, OLs will notify 55th Wing FOD/DOP Monitor of FOD incidents involving 55th Wing aircraft.

1.2. The Wing FOD Monitor will attend pre-construction briefings when pertaining to airfield repairs as needed. During airfield pre-construction meetings the chief of the construction section, Engineering and Contracts, are responsible for briefing contractors on FOD prevention. The construction inspector will inspect construction sites for compliance with the FOD prevention program, and will identify potential problems to the contracting officer for corrective action.

1.3. Intake and exhaust plugs/covers will be kept in good condition and only used for their designed function. Intake or exhaust plugs/covers will only be removed when performing intake or exhaust inspections/maintenance, when engines are to be operated, or upon crew ready time. Due to the extremely corrosive nature of aqueous film-forming foam (AFFF) (used in building fire suppression systems) on engines, all aircraft will have inlet covers installed at all times when parked in Bldg 457 docks 1-5 and nose docks 9-11. They will only be removed to perform maintenance/inspection and will be immediately reinstalled.

1.4. The “flight line area” is defined as all runways, taxiways, ramps and concrete areas attached to them within the entry control point (ECP) perimeter.

1.5. General FOD prevention awareness briefings will be provided during maintenance orientation courses conducted by 55 MOS/MXOT. Work center specific FOD training will be provided to all personnel within 30 days of arrival and at least annually thereafter. Work center supervisors will indoctrinate all assigned personnel on the importance of the FOD Prevention Program and ensure personnel are familiar with the policies and procedures contained in this instruction. All personnel will be briefed on the dangers associated with aircraft and engine intakes prior to operation.

1.6. Vehicle foreign object (FO) containers will be secured at all times to prevent tipping over. Vehicle operators will ensure their vehicle is kept FO free at all times to include low speed vehicles. FO inspections shall be accomplished as part of the vehicle daily inspection and prior to use of the vehicle by any operator.

1.7. All motorized vehicles or support equipment are required to stop at each FOD check point and perform a “Roll Over” FO check. Additionally, any vehicle leaving the finished surface will perform a “Roll Over” FO check immediately upon returning to the finished surface. Vehicle engines will be shut off and parking brakes will be set during tire FOD checks, unless a qualified driver remains in the driver’s seat. Emergency vehicles are exempt from performing the “Roll Over” FO check, if directly responding to an emergency situation.

1.8. No glass drink containers will be carried on the flight line or in vehicles on the flight line. All empty containers will be placed in FOD cans.

1.9. Consumables such as screws, bolts, washers, cotter pins, etc. will be placed in screw bags or zip lock bags when taken to work areas. Loose hardware will not be carried in tool bags or in individual's pockets.

1.9.1. When an aircraft part or panel has been removed, a parts bag will be used to control the consumables. The parts bag will be annotated with the number and type of items it contains as well as the applicable part or panel it is associated with.

1.10. FO containers will be available when maintenance is performed on aircraft. FOD pouches/bags contained within a Composite Tool Kit (CTK) will be considered suitable for filling this requirement.

1.11. Work areas will be thoroughly policed for FO as soon as each job is completed and when an item is dropped or misplaced.

1.12. Hats will not be worn on the flight line, except winter caps during inclement/cold weather; however, every effort should be made to prevent such headgear from coming loose. During special events such as ceremonies, festivals, DV arrivals and departures hats are authorized provided they are not worn within 50 feet of operating aircraft.

1.13. Security Forces, while performing official duties, may wear the beret with insignia attached; however, when they are within 50 feet of an operating aircraft their berets must be removed and secured. Berets with metal insignias will not be worn on the airfield.

1.14. All personnel entering the flight line, with exception to those greeting DV's, will remove metal insignias/badges, (to include all combinations with the uniform i.e. ribbons, skill level badge, name tag, and US insignias) metal hair fasteners, earrings, or any jewelry that may fall off without notice.

1.15. The USAF Restricted Area Badge and other badges will be secured to uniform with a nylon or cotton cord. If a metal clip is used, it must be attached securely to badge.

1.16. Personal bags such as back packs and helmet bags that are used on the flightline must not have anything loosely attached to them. Items that can be dislodged easily must be removed or permanently attached.

2. FOD Reporting.

2.1. In the event of a suspected or confirmed FOD incident, report IAW the following procedures:

2.1.1. The individual discovering the damage will:

2.1.1.1. Notify the Maintenance Operations Center (55 MOS/MOC) immediately upon discovery.

2.1.1.2. Complete a ACC FOD report which will be provided by the 55th Wing FOD Monitor.

2.1.2. Aircrews will complete an Offutt Air Force Base (OAFB) Form 3404, *Aircraft Incident/BASH/Engine Shutdown Worksheet*, during the debrief process.

2.1.2.1. Debrief Section will forward worksheet to 55 WG/SEF, 55 MXG/QA and 55 MOS/MOC.

2.1.3. Upon Notification of a FOD incident, 55 MOS/MOC will:

2.1.3.1. Notify the 55 MXG/CC with all available information.

2.1.3.2. Notify 55 WG/CVF, 55 WG/SEF, and 55 MXG/QA of aircraft tail number, parking location, time of discovery, and a brief description of damage resulting from the FOD incident.

2.1.4. The wing FOD Monitor will:

2.1.4.1. Conduct an investigation IAW AFI 21-101 and AFI 21-101 CAF SUP1 to determine if the incident was a preventable or non-preventable FOD incident. Results of the investigation will be briefed to the 55 WG/CV.

2.1.4.2. Report the incident to HQ ACC/A4MP as soon as damage is known but no later than 24 hours after occurrence.

2.1.4.3. Forward finalized report to HQ ACC/A4MP no later than 72 hours after notification of FOD incident.

3. FOD Walks/Sweepers.

3.1. FOD walks of aircraft parking areas will be conducted prior to the start of each flying day. Supervisors will ensure personnel are spaced apart to provide complete coverage of the area (no more than 10 feet apart), and personnel are not dismissed until area is FO free. Close attention will be paid to expansion joints, seams, and grounding points for small stones, deteriorating concrete, loose tar, and hardware during all FOD walks/inspections. Supervision will ensure areas around work center and routes traveled by personnel and vehicles between work center and aircraft are kept FO free. Particular attention will be given to areas traveled by flight line dispatched vehicles and equipment.

3.1.1. FOD walk responsibility will be divided evenly between 55th Maintenance Squadron (MXS) and 55th Aircraft Maintenance Squadron (55 AMXS), Aircraft Maintenance Units (AMU), and tenant units.

3.1.1.1. Lower Ramp – 55 MXS is responsible for Charlie 1 taxiway, Delta 2, 3, 5 and 9 areas, the front and backside of Delta 6, 7 and 8, the Delta taxi area, entrance and access roads behind nose dock 9, 10 and 11 and the AGE yard. The 83AMU is responsible for Delta 1, 4, 10 and 11 and from the Bravo ECP through Charlie 2 throat, Alpha and Bravo rows (including the front and back of blast fences) up to the E-6 aircraft secure lines. The Navy is responsible from their Bravo secure line area (including the front and back of blast fences). Note: If the Navy has aircraft on Bravo 4, the Navy will be responsible for Bravo 4. The 1 AMU is responsible from Charlie 3 and 4 throats through Echo 1-4 areas, the blast fences front and back, bldg 565 entrances and access roads. Reference Attachment 2.

3.1.1.2. Upper Ramp – 55 MXS/Transient Alert will be responsible for Kilo, Lima, Mike, and Golf Base Operations areas. The area surrounding Bldg 307 to include India row, is the responsibility of the owners of hangar 4 and 5. The area surrounding Bldg 306 to include India and Juliet row will be the responsibility of the owners of hangars 1, 2, and 3. Foxtrot, November, and Oscar over flow parking/operating areas will be the responsibility of the owning AMU and FOD Walks will be accomplished according to need. Reference Attachment 3.

3.1.1.3. Prior to an aircraft taxiing onto a parking spot, at a minimum, a FOD walk will be conducted on parking spot.

3.2. When FO is discovered on the flight line, the area will be cleaned immediately. If the debris is excessive, personnel should contact the MOC or Airfield Management to request sweeper dispatch.

3.3. Towable sweepers or “FOD Bosses” (if assigned) will be utilized by squadron maintenance personnel as needed. Towable sweepers will be used and maintained in accordance with the equipment operator's guide. Each squadron will develop a plan for sweeper usage. Towable sweepers are for flight line use only and will be disconnected from vehicles leaving the flight line area.

3.4. Work centers will ensure the dumpster areas are kept FO free and dumpster lids are kept closed. Units will ensure dumpsters are emptied when they become full. In addition, each work center supervisor will ensure FOD walks are conducted in other areas as needed.

3.5. A base FOD walk will be held at least annually. All units will participate. Inspection routes will be the runways and all taxiways. The 55th Wing FOD Monitor and Alternate FOD Monitor are the points of contact for planning and execution of the FOD walk.

4. Unit FOD Monitors.

4.1. All aircraft maintenance organizations and other units which have personnel working in, around, or traveling through the flight line or aircraft maintenance areas will appoint a unit FOD Monitor and forward an appointment letter to the 55th Wing FOD/DOP Monitor.

4.1.1. The following units/squadrons must assign a primary and alternate FOD monitor and DOP monitor to assist investigation teams: 55 MXS, 97 IS, 38 AMU, 45 AMU, 1 AMU.

4.1.2. FOD meetings will be held quarterly (monthly if the 55th Wing falls below ACC standard 1.0). The 55 WG/CV will chair all FOD/DOP meetings. In his absence the 55 MXG/CC will chair/manage both programs/

4.1.3. AFI 21-101 mandates the following at a minimum attend FOD/DOP committee meetings:

Table 1. FOD/DOP Meeting mandatory attendees.

55 OG	55 MXG	55 WG/SE	55 SFS	55 CES	1 AMU
38 AMU	45 AMU	55 MXS	55 MXG/MXQI	55 OSS	55 MSG/LDD
97 IS	338 CTS	343 RS	38 RS	45 RS	1 ACCS

4.2. An area for FOD information will be maintained in each work center. Placement is at the unit discretion. The location should afford the greatest possible access and visibility to work center personnel. The unit's FOD monitor shall ensure information is current.

5. FOD Awareness Programs.

5.1. The "Golden Bolt" Program: A gold painted object labeled with a FOD sticker will be placed in various areas throughout the entire maintenance complex. Any individual locating the "Golden Bolt" will receive an award for FOD Prevention awareness.

5.2. The FOD Poster Contest: A FOD Poster Contest will be held quarterly to promote the FOD Prevention program. Anyone assigned to Offutt AFB is eligible to participate. Pictures depicting an act or actions, emphasizing FOD prevention shall be submitted to the 55th Wing FOD/DOP Monitor. The 55 WG/CV or representative will select the poster that best represents the FOD Prevention program. The winner will receive a one-day pass, an award, and the poster will be submitted at the National Aerospace FOD Prevention Conference.

5.3. The FOD Eliminator Award: A FOD Eliminator Award will be given to the individual who consistently displayed outstanding FOD prevention practices during the evaluated fiscal quarter.

5.4. The FOD Slogan Award: The Slogan Award contest will be held quarterly to promote the FOD Prevention program. Anyone assigned to Offutt AFB is eligible to participate in this program. All slogans that enhance and emphasize the importance of FOD Prevention shall be forwarded to the Wing FOD/DOP Monitor. The 55 WG/CV or representative will select the slogan that best represents the FOD Prevention program and the winner will receive a one-day pass.

5.5. FOD Awards: All units are encouraged to nominate individuals for recognition via the FOD Awards Program. Quarterly awards include the Golden Bolt, FOD Eliminator, FOD Poster, and the FOD Slogan. Nominations for these awards must reach the 55th Wing FOD/DOP Monitor by the 10th day of the 3rd month of the fiscal quarter (example cutoff date would be 10 March for 2nd Quarter awards). For specific instructions on nominating individuals contact the 55th Wing FOD/DOP Monitor.

5.6. The 55th Wing FOD/DOP Monitor will maintain a FOD/DOP bulletin board. The board will display, at a minimum, the following items: FOD/DOP Monitor/Assistant, FOD Flashes, Quarterly FOD Award Winners and FOD Grams.

6. FOD Inspection criteria.

6.1. FOD inspections are performed on parking ramps along the flight line, hangars, work areas, facilities, aircraft, and equipment.

6.2. FO will be classified into two categories, Hard FO and Soft FO.

6.2.1. Hard FO examples include, but are not limited to: stones, pebbles, concrete, metal aircraft hardware, safety wire, pens/pencils, wood, glass, hard plastic, dust caps, and any other similar objects.

6.2.2. Soft FO examples include, but are not limited to: string, ear plugs, paper, bits of cloth, rubber & foam, soft plastic, grass, straw, organic matter, cigarette butts, and any other similar objects.

6.3. Major discrepancies:

- 6.3.1. Failure to comply with FOD prevention directives.
- 6.3.2. Failure to install protective covers on ducts, tubes, hoses, leads, intakes, etc., to prevent FOD.
- 6.3.3. Failure to wear proper attire when entering an engine intake.
- 6.3.4. Hard FO discovered during Flight Deck inspection.
- 6.3.5. Excessive soft FO discovered (large size or quantity exceeds Acceptable Quality Level (AQL)).

6.4. Minor discrepancies:

- 6.4.1. FO container not properly marked.
- 6.4.2. Soft FO not exceeding AQL discovered.
- 6.4.3. Failure to empty FO containers on a daily basis.

7. General DOP Policies and Procedures.

7.1. All assigned maintenance personnel will receive DOP program training that is incorporated in the Initial Maintenance Training taught by the 55 MOS/MXOT. All maintenance personnel will receive DOP program training annually.

7.2. Maintenance supervisors will ensure:

7.2.1. Prior to each sortie, after all maintenance is completed, a qualified technician will perform a secondary structure/panel inspection. Special emphasis will be placed on those items having a high vulnerability for loss. Secondary structure inspection requirements will be documented in the Air Force Technical Order (AFTO) Form 781A, *Maintenance Discrepancy and Work Document*, on all assigned C-135, and E-4B aircraft, using a Red X symbol. Special attention will be directed toward those items involved in last minute (Red Ball) maintenance to ensure any opened doors, panels, cowlings, etc. have been properly secured.

7.2.1.1. After aircraft has taxied from parking spot, a FOD/DOP walk will be completed on spot before aircraft flies. Paying close attention to any items that may have fallen off or leaks from the aircraft during taxi out. Recall the aircraft back to parking spot if anything is discovered.

8. DOP Reporting.

8.1. In the event of a suspected or confirmed DOP incident, report IAW the following procedures:

8.2. The individual discovering the DOP will:

8.2.1. Notify Maintenance Operations Center (MOC) and the production superintendent immediately upon discovery.

8.2.2. Assist the 55th Wing FOD/DOP Monitor with completion of initial ACC DOP report.

8.3. Aircrew and Maintenance Debrief Section will:

8.3.1. Ensure Aircrews complete Offutt Form 3404, *Aircraft Incident/BASH/Engine Shutdown Worksheet*, at Debrief section.

8.3.2. Forward worksheet to 55 WG/SEF, 55 MXG/QA and MOC.

8.4. Upon notification of a DOP incident, MOC will:

8.4.1. Notify the 55 MXG/CC with all available information.

8.4.2. Notify 55 WG/CVF, 55 WG/SEF and 55 MXG/QA of aircraft tail number, parking location, time of discovery and give a brief description of damage resulting from DOP incident.

8.5. The wing FOD/DOP Monitor will:

8.5.1. Report the incident to HQ ACC/A4MP as soon as damage is known but no later than 24 hours after occurrence.

8.5.2. Conduct an investigation IAW AFI 21-101 to determine if the incident was a preventable DOP incident. Results of the investigation will be briefed to the 55 WG/CV.

8.5.3. Forward the final report to HQ ACC/A4MP and HQ AMC/A4M no later than 72 hours after notification of DOP incident.

ADOPTED FORMS:

AF Form 847, *Recommendation for Change of Publication*

AFTO Form 781A, *Maintenance Discrepancy and Work Document*

OAFB Form 3404, *Aircraft Incident/BASH/Engine Shutdown Worksheet*

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Commander

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 21-101, *Aircraft & Equipment Maintenance Management*, 29 Jun 06

AFMAN 33-363, *Management of Records*, 1 Mar 08

AFI 33-324, *The Information Collections and Reports Management Program; Controlling Internal, Public, and Interagency Air Force Information Collections*, 1 Jun 00

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*

AFTO Form 781A, *Maintenance Discrepancy and Work Document*

OAFB Form 3404, *Aircraft Incident/BASH/Engine Shutdown Worksheet*

Abbreviations and Acronyms

AFB— Air Force Base

AFFF— Aqueous Film-Forming Foam

AFI— Air Force Instruction

AFMAN— Air Force Manual

AFRIMS— Air Force Records Information Management Systems

AFTO— Air Force Technical Order

AGE— Aircraft Generation Equipment

AMU— Aircraft Maintenance Unit

CTK— Composite Tool Kit

DOP— Dropped Object Program

ECP— Entry Control Point

FO— Foreign Object

FOD— Foreign Object Damage

HQ ACC/A4MP— HQ Air Combat Command, Director of Logistics, System Support Division, Propulsion Branch

MOC— Maintenance Operations Center

MXOT— Training Flight

CC— Commander

QA— Quality Assurance

OAFB— Offutt Air Force Base

OL— Operating Locations

OPR— Office of Primary Responsibility

RDS— Records Disposition Schedule

SEF— Safety

CVF— FOD Monitor

CV— Vice Commander

55 MOS— 55th Maintenance Operations Squadron

55 MXG— 55th Maintenance Group

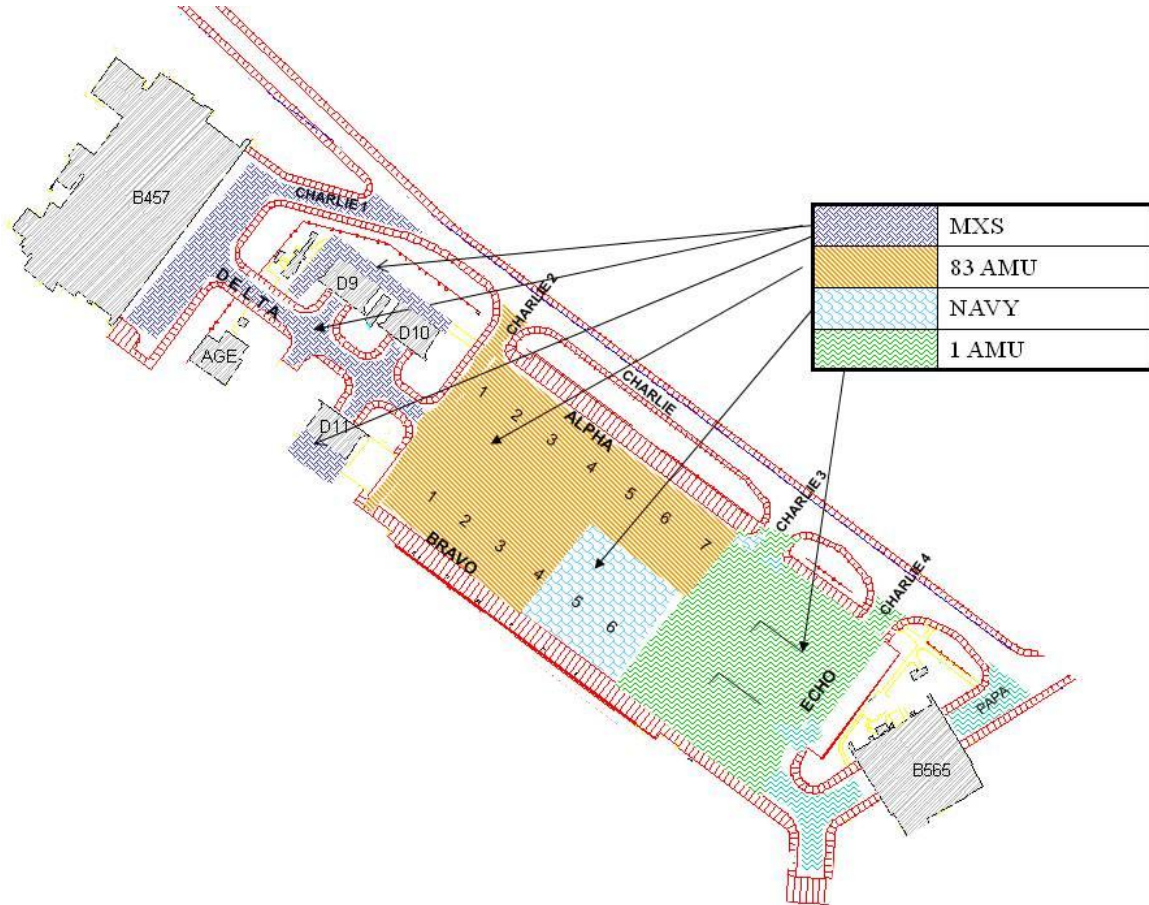
55 MXS— 55th Maintenance Squadron

55 WG— 55th Wing

97 IS— 97th Intelligence Squadron

Attachment 2
LOWER RAMP FOD WALK AOR

Figure A2.1. Lower Ramp FOD Walk AOR



Attachment 3
UPPER RAMP FOD WALK AOR

Figure A3.1. Upper Ramp FOD Walk AOR

