

**BY ORDER OF THE COMMANDER
45TH SPACE WING**

45TH SPACE WING INSTRUCTION 91-201

19 DECEMBER 2012



Safety

**FOREIGN OBJECT DAMAGE AND
DROPPED OBJECT PREVENTION
(FOD/DOP) PROGRAM**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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OPR: 45 SW/SEF

Certified by: 45 SW/SE (Col Edward M.
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Supersedes: 45 SWI 91-201, 19 Mar 2010

Pages: 7

This instruction implements AFD 91-2, *Safety Programs*, and AFI 91-204, *Safety Investigations and Reports*. It establishes responsibility for implementation and continued operation of the Foreign Object Damage (FOD) and Dropped Object Prevention (DOP) Program. 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*; route AF Form 847s from the field through Major Command (MAJCOM) publications/forms managers. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 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/afrims/afrims/afrims/rims.cfm>

SUMMARY OF CHANGES

This publication has been revised and must be completely reviewed. Major changes include: incorporates the requirement from AFI 21-101, *Aircraft and Equipment Maintenance Management*, for a wing Dropped Object Program.

1. . Responsibilities.

1.1. FOD/DOP monitors.

1.1.1. The wing FOD/DOP monitor will be a qualified TSgt (or above), or civilian equivalent, or contractor if designated by PWS, with at least 8 years (1 year for ALC)

experience in the maintenance field. FOD/DOP monitor will appointed in writing by 45 SW/CV.

1.1.2. The wing FOD/DOP monitor will identify and develop training standards.

1.1.3. All agencies that operate regularly on the airfield must have a unit FOD/DOP monitor designated in writing to the Base FOD/DOP Committee Chairperson.

1.1.4. FOD/DOP monitor will investigate all FOD/DOP incidents for possible formal reporting and keep 45 SW/SEF informed. A dropped object becomes FOD once on the ground. Foreign objects (FOs) that have left an aircraft will be coordinated with the appropriate flying unit to ensure reporting under the unit MAJCOM/owning agency DOP guidelines. Tenant units will investigate their own FOD/DOP mishaps and keep FOD/DOP monitor informed. They will also evaluate the unit's FOD/DOP program during annual safety inspections.

Note: This includes any unit with aircraft maintenance personnel, CE, airfield management and security forces.

Note: Tenant units include the 920 RQW, Department of Homeland Security, Department of State, Cape Canaveral AFS Skid Strip, and associated contractors. Ascension Auxiliary Airfield FOD checks will be complied with by CSR 6310-FS-026 and any issues will be routed through 45 SW/SEF to the FOD/DOP Committee Chairperson. All personnel must strive to prevent all instances of FOD/DOP in order to meet Air Force mission requirements and commitments.

1.2. It is the responsibility of commanders and maintenance supervisors of all airfield agencies to ensure compliance with this instruction.

1.2.1. Unit commanders must ensure newly assigned personnel receive initial FOD/DOP control training by their specific duty section supervisor and annual refresher courses.

1.2.2. They must also ensure all FOD/DOP mishaps are reported to the unit safety representative and forwarded to the 45 SW/SEF for possible formal reporting.

1.3. The 45 SW/SEF will administer the FOD Recognition Program.

1.4. The Airfield Management Office will ensure the Airfield Driving Training Program stresses the importance of FOD prevention, control of vehicles on the airfield and precautions to be taken before entering the airfield.

2. Procedures.

2.1. The Base FOD/DOP Committee will be chaired by 45 SW/CV. The committee will consist of the Chairperson, group CCs, directors, CCs of units with maintenance personnel, safety, CE, Airfield Manager, security forces, and additional attendees as designated by the 45 SW/CV. In accordance with AFI 21-101, persons assigned to these positions will attend the quarterly FOD/DOP meetings.

2.2. The primary duties of the FOD/DOP Committee Chairperson are:

2.2.1. Coordinate the base FOD/DOP Committee meetings. Meetings will be scheduled such that all participants can attend (i.e., tenant units).

2.2.2. Review suggestions relative to FOD/DOP control.

- 2.2.3. Discuss possible trends, viable solutions and conduct follow-up actions.
- 2.2.4. Ensure each FOD/DOP mishap is investigated and action taken to solve any underlying problems.
- 2.2.5. Ensure all necessary 45 SW operations personnel participate.
- 2.3. The primary duties of the unit FOD/DOP monitor are:
 - 2.3.1. Attend the quarterly FOD/DOP meetings.
 - 2.3.2. Establish and maintain a unit FOD/DOP program.
 - 2.3.3. Conduct and document initial and annual refresher FOD/DOP training for appropriate personnel.
 - 2.3.4. Ensure the FOD/DOP program is evaluated during the annual safety inspection.
 - 2.3.5. Coordinate with unit facility managers to ensure an internal FOD/DOP control program is in place for appropriate buildings (i.e., airfield hangars and shops).
 - 2.3.6. Encourage participation and increase awareness of the FOD/DOP program through safety boards, commanders calls, staff meetings, read files, maintenance meetings, and posting of information in high-visibility areas.
 - 2.3.7. Report FOD/DOP trends at the quarterly FOD/DOP meetings.
- 2.4. Tenant units and contractor services will monitor a formal weekly FOD inspection of their respective aircraft parking areas. For all tenant personnel, this inspection will be completed by a designated representative. A FOD walk will be scheduled for all maintenance personnel as required.

3. Airfield FOD/DOP Prevention.

- 3.1. All airfield vehicles will be inspected for FOD at each shift turnover. This includes a visual tire inspection to ensure all stones and debris are removed from the tire treads.
- 3.2. All vehicles will use the entry control points denoted by the FOD check point signs for routine access to the airfield. Vehicles will only enter the aircraft ramp area, taxiways, and runways from hard paved roads, or specified entry control points. *exception:* Emergency vehicles (airfield management, fire, crash recovery, security forces) in the performance of their duties are exempt.
- 3.3. All vehicles that are normally driven on the airfield will be equipped with a FOD container that is clearly marked "FOD" in contrasting colors. Special-purpose vehicles are exempt.
- 3.4. Tenant and Contractor maintenance units will have procedures in place for the elimination of FOs in aircraft cockpits and flight decks prior to flight, as well as for preventing dropped objects from occurring in flight.

4. Ramp Policing: .

- 4.1. All personnel will exercise extreme care to police all working areas at the end of the duty day, including motor vehicles.

4.1.1. Commanders and FOD/DOP monitors will coordinate FOD checks to ensure all areas are policed. Wing and tenant personnel will share all working area responsibilities.

4.2. The 920 RQW will equip four vehicles with a full-size magnetic bar. These vehicles will be used mainly on the 750 Ramp. Magnetic bars will be inspected and made FOD-free prior to the beginning of each shift.

5. General FOD/DOP Prevention Practices.

5.1. Extreme caution will be used around running aircraft engines. Personnel will exercise positive control of aircraft safety pins, safety locks, aircraft forms and manuals, clothing and personal items such as pens, pencils, coins, hair-restraining devices, identification badges and passes.

5.2. Unauthorized items include hats, wigs, earrings, metal clips, metal emblems/items, insignias/badges, any other jewelry that may fall off without notice, bobby pins, hair pins, plastic and leather hair fasteners. These items will not be worn by personnel on the flightline or when involved in aircraft, component or alternate mission equipment maintenance.

Exception: The Sun Hat/“Boonie” and Night Watchmen hats will be authorized for wear on the 750 Ramp. The Sun Hat/“Boonie” will be worn with a breakaway chin lanyard installed; the hat strap will be in place under the chin when worn to prevent possibility of loss in high winds. Hats will not be worn within 25 feet of running engines. Hats will be marked with: first initial, last name, work center and man number if applicable

5.3. Maximum use of engine inlet and tailpipe dust covers is essential. Covers will be on at all times when the aircraft is not operational, cocked, on alert status or receiving engine inlet or tailpipe maintenance.

5.4. Aircraft and weapon safety pins will not be placed on or left unsecured on the aircraft parking ramp or movement areas at any time.

5.5. At no time will aircraft forms be left unsecured on the ramp or any external area of the aircraft. The form pouch will be exclusively for aircraft form 46 series, used by Life Support. Hardware, parts, rags, bottles, cans, etc., will not be stored in these areas.

5.6. Drinking Containers: To eliminate the possibility of a drinking container becoming a foreign object on the airfield, drinks should be consumed inside vehicles or aircraft.

5.6.1. Personal Drinking Containers: Are authorized for use; container will have a tethered lid and be marked with (First Initial Last Name/Man# if applicable/Unit#). Personal drinking containers will be secured when not in use.

5.6.2. Drinking Coolers: Are authorized; coolers will be marked with (Work Center & Unit #) and drinking coolers will be secured when not in use.

5.7. Visually inspect all towing routes when an aircraft goes to and from the wash racks to prevent FOD. All towing vehicles will also be inspected before and after towing an aircraft.

5.8. Maintenance personnel will inspect aircraft parking spots for foreign objects prior to an aircraft blocking in and prior to an aircraft leaving. After the aircraft departs, the parking spot will be cleaned of all non-essential equipment, liquid spills and foreign debris.

5.9. Escorts of visiting personnel will ensure FOD/DOP control measures are taken.

6. Airfield Sweeping.

6.1. The 45th Civil Engineer Squadron will maintain a sweeper and driver for use during periods of airfield operation. If not actively sweeping on the airfield, a standby system may be used. Sweeping operations will begin as early as possible to minimize impact on operations.

6.1.1. Due to the critical nature of the airfield sweeper, 45 CES is authorized two sweepers. One sweeper will be operational at all times at Patrick AFB. The second sweeper will be operational or in priority maintenance status. If an operational sweeper is not available, procedures will be in place to borrow one from Cape Canaveral Air Force Station (CCAFS). Should critical operations at CCAFS require it, reciprocal arrangements may be made for a Patrick AFB sweeper to be loaned to the CCAFS airfield.

6.2. The Patrick AFB sweeper will check in with airfield management in the morning for any specific requests. The following schedule will be used as a guide:

Table 1. Patrick AFB Sweeper Schedule.

Monday	Runway 02/20, Taxiways Alpha, Bravo, Charlie, Delta, Echo and east Lima
Tuesday	Runway 11/29, Taxiways Golf, west Lima, Mike, Zulu and east 750 Ramp.
Wednesday	DOS ramp, 800 Ramp and 820 Ramp
Thursday	West 750 Ramp, Taxiway Juliet and Wash Racks
Friday	FOD Check Points

6.2.1. Runway shoulders and overruns will be swept as needed.

6.3. The following areas at CCAFS will be swept once a week: taxiway Alpha, taxiway Bravo, parking apron, runway, and Skid Strip Road from airfield lighting vault to runway. Remaining portion of Skid Strip Road from airfield lighting vault to Hangar F (towway) will be swept as required, upon request from CBP to Airfield Management.

6.4. Any hardware or potential aircraft components found by sweeper will be brought to Airfield Management. Efforts will be made to locate the origin.

7. Recognition Program.

7.1. In order to heighten awareness and provide additional incentive for FOD/DOP control, 45 SW/SEF will implement the following awards.

7.1.1. The "Individual Award." Individual award nominees can be identified through the quarterly safety award program for above average FOD/DOP discoveries. For example, determining the origin of a piece of FOD/DOP that instituted a fleet-wide inspection or making a find in an unusual location that required extra effort.

7.1.2. The "Unit FOD/DOP Award." Winner will be selected by the FOD Committee from all units as needed to award exceptional unit performance. The winner will receive an award as determined by the FOD/DOP Committee.

RORY D. WELCH, Colonel, USAF
Vice Commander

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

AFPD 91-2, *Safety Programs*, 24 Jul 2012

AFI 91-204, *Safety Investigations and Reports*, 24 Sep 2008

Air Force Manual (AFMAN) 33-363, *Management of Records*,

AFPD 21-1, *Air and Space Maintenance*, 25 Feb 2003, 1 Mar 2008

AFI 21-101, *Aircraft and Equipment Maintenance Management*, 26 Jul 2010

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*, 22 Sep 2009

Abbreviations and Acronyms

AFRIMS—Air Force Records Information Management System

AFB—Air Force Base

AFS—Air Force Station

ALC—Air Logistics Center

CBP—Customs and Border Protection

CE—Civil Engineering

DOP—Dropped Object Prevention

FO—Foreign Object

FOD—Foreign Object Damage

MAJCOM—Major Command

PWS—Performance Work Statement

RDS—Records Disposition Schedule

RQW—Rescue Wing

TSgt—Technical Sergeant

45 CES—45th Civil Engineering Squadron

45 SW—45th Space Wing