

**BY THE ORDER OF  
THE 22D AIR REFUELING COMMANDER**

**MCCONNELL AIR FORCE BASE  
INSTRUCTION 21-102**

**15 JULY 2003**

**Maintenance**

**FOREIGN OBJECT DAMAGE (FOD)  
CONTROL PROCEDURES**



**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This instruction implements AFD 21-1, *Managing Aerospace Equipment Maintenance*, and establishes local FOD prevention procedures not defined by other Air Force publications and implements the directives in AFI 21-101, *Maintenance Management of Aircraft*. This instruction is applicable to all units or personnel assigned to McConnell AFB, engaged in maintenance on aircraft, engines, or airfield operations.

### **SUMMARY OF REVISIONS**

Paragraphs **4.** and **5.** of this publication have been revised to implement changes incorporated in AFI 21-101, Chapter 18, Paragraph 18.23 dated 1 Oct 2002. Group and Squadron FOD monitors must review this publication for changes directed to their agencies. **A bar ( | ) indicates a change since the last revision.**

#### **1. Responsibilities:**

- 1.1. The 22 ARW Vice Wing Commander, with assistance from the 184 LG/CC, is responsible for the FOD Program.
- 1.2. The 22 ARW FOD monitor is responsible for scheduling the quarterly FOD/DOPP meeting.
- 1.3. Additional responsibilities for reporting, investigating, and preventing FOD are outlined in AFI 21-101, as supplemented, and AFI 91-204.
- 1.4. All supervisors are responsible for:
  - 1.4.1. Reviewing maintenance and operational practices and inspection procedures with a positive view toward eliminating the probability of FOD.

1.4.2. Reporting to the appropriate wing FOD monitor any potential FOD conditions or problems existing on the flight line, maintenance hangars, and/or airfield.

1.5. Any squadron/unit engaged in flight line activities are responsible for:

1.5.1. Appointing a squadron FOD monitor in writing to unit/LGQ.

1.5.2. Ensuring squadron FOD monitors attend the scheduled FOD meetings.

1.5.3. Assisting the wing FOD monitor in corrective actions to prevent FOD.

## **2. Procedures:**

2.1. All drivers of radio-equipped vehicles will notify the MOC who will notify airfield operations when FOD material is detected and verified anywhere on the airfield, which cannot be, picked up on the spot, or which presents a hazard to taxiing aircraft. The MOC and airfield operations will initiate necessary action to have the area swept by a CES sweeper truck.

2.2. Transient maintenance personnel will inspect all transient aircraft for missing fasteners, etc., on panels forward of the engine intake duct after parking. Engines will be inspected and borescoped (where provisions exist) anytime hardware is found missing from this area.

2.3. All support equipment will be inspected prior to use for potential FOD hazards (safety wire, trash, hardware, etc.).

2.4. All required engine FOD inspections will be documented using a RED X entry. A separate write-up if required, will be used to document before flight and after flight engine inspections.

**3. FOD Identification and Reporting.** These procedures will be complied with upon discovery of any actual or suspected FOD incident:

3.1. Maintenance personnel will report all FOD incidents through the squadron supervisory chain to MOC, who will notify the wing FOD monitor, LG/CC, and the airfield manager. A seven-level specialist who maintains the applicable system involved will make a complete inspection of all visible damage. All FOD maintenance, minor and major, must be recorded in G081 with the proper How Mal Function Code "301."

3.2. MOC will also notify:

3.2.1. Command Post.

3.2.2. 22d Logistics Group Quality Assurance (LG/LGQ).

3.2.3. 22d Wing Safety Officer.

3.3. The 22d Wing FOD Monitor and the 22d Wing Safety Office will assume responsibility for initiating the investigation.

3.4. Transient maintenance personnel will be responsible for policing the transient aircraft parking area and taxiways used during escort of transient aircraft in those areas.

3.5. Any FOD or potential FOD problems outside of a squadron's ability to resolve will be reported to the Wing FOD Monitor for resolution and included in the quarterly FOD/DOPP meeting agenda.

## **4. Daily Maintenance:**

4.1. Maintenance personnel will properly store all hardware when working on the aircraft. Small parts and hardware removed from aircraft will be placed in parts bag and attached to panel or component during breaks in maintenance.

4.2. To place individual accountability on FOD inspections and prevent probability of damage during aircraft operations, the following will be accomplished:

4.2.1. 22 AGS Debrief will make the following entry in the AF Form 781A, on a red dash symbol, after flight. "Parking spot FOD inspection and tool inventory required before launch".

4.2.2. The entire aircraft parking spot will be inspected for foreign objects, and a tool inventory conducted, by the personnel assigned to each aircraft launch. The corresponding 781A entry will be signed off before the exceptional release.

4.2.3. All personnel will complete a tool inventory and FOD inspection after completion of work and document "Tool and FOD check complied with" at the end of the 781A corrective action statement.

4.2.3.1. Each individual who signs his/her name in the corrected by and/or the inspected by block in the 781A is responsible for the FOD inspection in the general area of maintenance being accomplished. General area is defined as: within 18 inches of the maintenance that was performed.

4.3. No hats will be worn on the flight line with the following exceptions:

4.3.1. Watch caps (black stocking caps)/ski masks. It must be secured by a headset or ear defenders around an operating engine inlet.

4.3.2. Cold weather cap (bunny cap). It must be secured by a headset or ear defenders around an operating engine inlet.

4.3.3. Or as specifically approved by the appropriate group/CC.

## **5. FOD Walk Procedures:**

5.1. LG FOD clean up will be conducted every week as determined by current policy letter. The 184 ARW conducts FOD walks 0745 Tuesdays, 0745 Wednesday, and 1710 Thursdays.

5.2. All building occupants are responsible for the immediate areas around their building, to include smoking areas.

5.3. Foreign objects debris in the maintenance complex and particularly on the flight line are everyone's responsibility. These guidelines only provide a basic framework for keeping areas FOD free.

5.4. 22 AGS is responsible for daily policing of applicable aircraft parking areas.

5.4.1. Echo and Delta ramp users are responsible for FOD walking area before and after use.

5.5. MXS:

5.5.1. Street around Bldg. 1169 from metals technology's drive way to structural repair's roll-up door.

5.5.2. Area around Bldg. 1106.

5.5.3. Area around Bldg. 1176.

5.5.4. Area around Bldg. 1171.

5.5.5. Along the inside of Topeka Street fence that runs parallel to the maintenance complex. From the north end of Bldg. 1170 to the entrance by Bldg. 1106.

5.5.6. From the southwest corner of Bldg. 1169 to the structural repair roll-up door

5.6. Base Operations:

5.6.1. Checks the OPS ramp daily and order sweepers as required.

5.6.2. Checks all taxiways and runways on a daily basis.

5.7. 184 ARW: FOD walks B7 through B16 from the west edge of taxiway Alpha behind aircraft to mass parking area centerline.

## 6. Maintenance Bird Strike Reporting:

6.1. All units will report bird strikes using their appropriate channels and procedures.

6.2. 22d Logistics Group Procedures:

6.2.1. All ground found and crew reported bird strikes (damage or no damage) will be reported using the maintenance bird strike report worksheet ([Attachment 1](#)).

6.2.2. Maintenance production super will be responsible for bird strike reporting as follows:

6.2.2.1. Crew reported bird strikes will be inspected and documented in aircraft forms. A maintenance bird strike report (attached) will be completed. A sampling of feathers/down will be placed into a ziploc bag marked with tail number, date and forwarded with the report to maintenance debrief NLT the end of work shift.

6.2.2.2. Ground found bird strikes will be immediately reported to the MOC as a ground found discrepancy. A red dash entry and JCN will be entered into aircraft forms. A maintenance bird strike report will be completed and routed as described in [6.2.2.1](#).

6.2.2.3. All bird strikes must be immediately reported to the MOC who will contact the Command Post, 22d Air Refueling Wing Safety, QA, and the 22 LG Commander.

6.2.3. Maintenance debrief will contact the 22d Air Refueling Wing Safety/Bird Aircraft Strike Hazard monitor NLT next duty day to report the incident.

DAVID J. KRAMER, Colonel, USAF  
Vice Commander

Attachment 1

MAINTENANCE BIRD STRIKE REPORT

*Required for all crew reported and non-crew reported (ground found) bird strikes*

Aircraft Tail Number \_\_\_\_\_ Date Found \_\_\_\_\_ Time \_\_\_\_\_

\*Date/Time of last Sortie \_\_\_\_\_ \*Sortie Duration \_\_\_\_\_

\*Aircraft Commander (Provided by Debrief) \_\_\_\_\_

\* Not required for **crew** reported bird strikes.

Pro-Super's Name and Organization \_\_\_\_\_

Point(s) of impact (be specific)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Damage to aircraft

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Corrective Action (Boroscope, repairs, wipe down, Etc.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Approx. hours for Inspection/Clean-up/Maintenance \_\_\_\_\_

**G081 JCN** \_\_\_\_\_

Please forward this paper work and bagged feathers (no flesh) to Debrief.

Fax copy of this report to LGQA fax #6124, within 48 hours.

16 July 02

Any questions contact LGQA FOD manager X3613, X4156