

**BY ORDER OF THE COMMANDER
SPANGDAHLEM AB (USAFE)**

**SPANGDAHLEM AIR BASE
INSTRUCTION**



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Maintenance

**52 FW FOREIGN OBJECT DAMAGE
PREVENTION PROGRAM**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements Air Force Policy Directive (AFPD) 21-1, *Air and Space Maintenance*, Air Force Instruction (AFI) 21-101, *Aircraft and Equipment Maintenance Management*, and AFI 21-101_USAFE_AFAFRICASUP, *Aircraft and Equipment Maintenance Management*. It prescribes policies and procedures governing Foreign Object Damage (FOD) Prevention Program in the 52d Fighter Wing (52 FW). It prescribes the use of Spangdahlem Form 3, *F110-GE-129 First Stage Fan FOD Survey*, for reporting fan blade anomalies. As of the revised 2017 version it also prescribes Spangdahlem Form 5, the *PAS Inspection Requirements and Discrepancy Report*, Spangdahlem Form 6, *PAS Daily Verification Sheet*, and Spangdahlem Form 7, *Foreign Object Damage/Dropped Object Prevention Incident Worksheet*. It applies to all Spangdahlem Air Base organizations and its geographically separated units that maintain aircraft, aircraft systems, equipment, support equipment and components regardless of Air Force Specialty Code. The reporting requirements in this publication (unless otherwise specified) 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*. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFI 33-322, *Records Management and Information Governance Program*, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at <https://www.mv.af.mil/gcss-af61a/afirms/afirms/>. Refer recommended changes and questions about this publication to the Office of Primary Responsibility

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SUMMARY OF CHANGES

This document has been revised and must be reviewed. There are several areas that have changed for both the 52 FW and 726 AMS. Those changes include TDY aircraft, rental, and contractor vehicles. Additionally, corrections to verbiage throughout the documents have been made.

Chapter 1

GENERAL

1.1. General.

1.1.1. The 52 FW FOD Monitor will be the focal point for this instruction. Any addition, changes or deletions to this publication will be coordinated through the 52 FW FOD Monitor.

1.1.2. FOD Prevention Program representatives: The primary and alternate FOD representatives from all units will be appointed by their squadron commander or flight/section chief and be designated in writing to the 52 FW FOD Monitor

1.1.3. FO will be categorized as:

1.1.3.1. Hard FO (screws, washers, safety wire, dust caps, wood, plastic, etc.) found in or under the silhouette of aircraft, in or on equipment/composite tool kits, or located within inlet ingestion areas will be rated as major discrepancies.

1.1.3.2. During vehicle inspections, FO located within compartments (i.e., glovebox, side panels, cup holders) will be rated as minor discrepancies. Hard FO discovered outside those compartments (i.e., truck beds, floorboards, seats) will be rated as major discrepancies.

1.1.3.3. Soft FO discovered during any inspection will be considered a minor unless it has the potential to damage aircraft or equipment.

1.1.4. 726 AMS and temporary units will rate FO inspections and findings according to AMC or MDS specific guidance.

1.2. Responsibilities.

1.2.1. Wing Vice Commander (WG/CV) Responsibilities. The WG/CV (or equivalent) will:

1.2.1.1. Manage the Foreign Object Damage (FOD) and Dropped Object Prevention (DOP) Programs. The WG/CV is the FOD/DOP Prevention Program Manager and will appoint a qualified Technical Sergeant (or above), civilian equivalent or contractor, if designated by performance work statement, as the FOD/DOP Prevention Monitor(s) IAW [Chapter 11](#) of AFI 21- 101.

1.2.1.2. The Wing CV is the approving authority for FOD monitor additional duties.

1.2.1.3. The WG/CV will chair the quarterly FOD/DOP Prevention Program meeting, if required, and will determine minimum required attendees. The purpose of this meeting is to identify negative trends and develop and execute action plans to resolve them. The MXG/CC (or equivalent) will chair the meeting in the absence of the WG/CV.

1.2.1.4. Budget for and allocate funds to support the wing's FOD program.

1.2.2. Operations Group Commander (OG/CC) Responsibilities. The OG/CC (or equivalent) will:

1.2.2.1. Ensure all personnel within the group (military, civilian and contractors) working in, on, around or traveling through areas near aircraft, munitions, AGE, engines, or components will attend initial FOD prevention training and comply with FOD, DOP, and Lost Tool/Object procedures.

1.2.2.2. Ensure a FOD monitor is appointed at the group level to ensure 52 FW FOD prevention program policies are in place and utilized.

1.2.3. Mission Support Group Commander (MSG/CC) Responsibilities. The MSG/CC (or equivalent) will:

1.2.3.1. Ensure all personnel within the group (military, civilian and contractors) working in, on, around or traveling through areas near aircraft, munitions, AGE, engines, or components will attend initial FOD prevention training and comply with FOD, DOP and Lost Tool/Object procedures.

1.2.3.2. Ensure a FOD monitor is appointed at the group level to ensure 52 FW FOD prevention program policies are in place and utilized.

1.2.4. Maintenance Group Commander (MXG/CC) Responsibilities. The MXG/CC (or equivalent) will:

1.2.4.1. Ensure all personnel within the group (military, civilian and contractors) working in, on, around or traveling through areas near aircraft, munitions, AGE, engines, or components will attend initial FOD prevention training and comply with FOD, DOP and Lost Tool/Object procedures.

1.2.4.2. Ensure a FOD monitor is appointed at the group level to ensure 52 FW FOD prevention program policies are in place and utilized. 52 FW FOD monitor can occupy this position.

1.2.5. Maintenance Training Section Chief Responsibilities Ensure a newcomer's orientation program is conducted, familiarizing newly assigned personnel with wing maintenance activities. Topics should include unit mission, tasking plans, supply procedures, FOD program, general flightline and work center safety rules, QAP, and product improvement procedures. MAJCOMs may determine which organization will conduct this training.

1.2.6. Maintenance Operations Center (MOC). The MOC will:

1.2.6.1. Notify the wing safety office, QA, and wing FOD monitor of mishaps involving aircraft FOD, aircraft damage or injuries resulting from aircraft maintenance.

1.2.6.2. Inform the Wing FOD monitor or QA when lost tools are found.

1.2.7. All 52 FW personnel dispatchable to the flight line

1.2.7.1. Airfield managers are responsible for controlled movement area (CMA) FOD inspections.

1.2.7.2. Ensure all military, civilian and contractor personnel working in, on, around or traveling through areas near aircraft, munitions, AGE, engines, or components attend initial FOD prevention training and comply with FOD, DOP and Lost Tool/Object procedures.

Chapter 2

FOD PREVENTION COMMITTEE MEETING

2.1. FOD Prevention Committee Meeting.

2.1.1. A FOD Prevention Committee Meeting will be convened quarterly. Associate units will be part of the host base program and will not establish an independent FOD program. The FOD meeting may be combined with other meetings.

2.1.2. The WG/CV will chair the meeting, if required, and will determine minimum required attendees. The purpose of this meeting is to identify negative trends and develop and execute action plans to resolve them. The MXG/CC (or equivalent) will chair the meeting in the absence of the WG/CV.

2.1.3. Minimum attendee representation will include a representative from each affected unit.

2.1.3.1. 52 Maintenance Group Commander (52 MXG/CC) or 52 Maintenance Group Vice Commander (52 MXG/CV) and or 52 Maintenance Group Superintendent.

2.1.3.2. 52 Aircraft Maintenance Squadron (52 AMXS) Maintenance Operation Officer or Superintendent. AMU Assistant Superintendent are approved alternative representatives.

2.1.3.3. 480th Aircraft Maintenance Unit (480 AMU) Maintenance Operation Officer or Superintendent. The AMU Assistant OIC and AMU Assistant Superintendent are approved alternative representatives.

2.1.3.4. 52d Maintenance Squadron (52 MXS) Maintenance Operation Officer or Superintendent

2.1.3.5. 52d Civil Engineering Squadron (52 CES) Officer in Charge or Superintendent, and Squadron FOD Monitor.

2.1.3.6. 52d Logistics Readiness Squadron (52 LRS) Officer in Charge or Superintendent, and Squadron FOD Monitor.

2.1.3.7. 52d Security Forces Squadron (52 SFS) Officer in Charge or Superintendent, and Squadron FOD Monitor.

2.1.3.8. 52 MXG Quality Assurance (QA).

2.1.3.9. Propulsion Flight Officer in Charge or Chief.

2.1.3.10. 52d Maintenance Operations (52 MXO) Weapons Standardization Superintendent or Flight Chief.

2.1.3.11. 726th Air Mobility Squadron Commander (726 AMS/CC) and/or QA.

2.1.3.12. 52d Operation Support Squadron (OSS) Airfield Management Representative.

2.1.3.13. All appointed FOD monitors are encouraged to attend if possible.

Chapter 3

FOD BULLETIN BOARDS

3.1. FOD Bulletin Boards.

3.1.1. All units with personnel (military, civilian and contractors) working in, on, around or traveling through areas on the flightline, near aircraft, munitions, AGE, engines, or components will have a FOD board.

3.1.2. Unit/Section FOD monitors will maintain FOD boards and update currency by the 5th calendar day of the month.

3.1.3. 52 FW FOD boards will contain, at a minimum, most recent Quarterly meeting minutes, current FOD Flash, FOD Poster of the Month, Unit/Section FOD monitor appointment letter, 52 FW FOD Monitor Appointment Letter, MXG Form 145, Form 145 Procedures, Form 7, Form 7 Procedures, FOD Walk AORs, any FOD Checkpoint Exemption Letter posted on FOD SharePoint, and Spangdahlem Visual Aid 21-101,. All these documents are located on the FOD SharePoint at <https://portal.usafe.af.mil/sites/52FW/CVF/default.aspx>. under the “Digital FOD Board” tab.

3.1.4. 726 AMS FOD Bulletin Board Will contain, at a minimum, most recent Quarter meeting minutes, 52 FW FOD Monitor letter, current FOD Flash, FOD Poster of the Month, FOD monitor appointment letter, Spangdahlem Visual Aid 21-101, any FOD Checkpoint Exemption Letter posted on FOD SharePoint, and any other required items for AMC, *Foreign Object Damage Monitors*, which need to be reviewed every 180 days.

3.2. Placement of the bulletin board is at the discretion of the concerned facility manager but FOD bulletin boards will be located to afford the greatest visibility to work center personnel.

3.3. Multiple work centers within a small facility must request approval via email from the 52 FW FOD Monitor to share a common bulletin board.

3.3.1. When units/sections share FOD board both units/sections will still have a FOD monitor and will share responsibility for updating. Both units/sections FOD appointment letter will be posted on board.

Chapter 4

FOD INCENTIVE PROGRAMS

4.1. FOD Incentive Programs.

4.1.1. FOD Posters.

4.1.2. All wing personnel can submit FOD posters. Posters will be submitted to the 52 FW FOD monitor no later than last duty day of the month via email. The 52 FW FOD monitor will determine the winner. Ties are resolved by Wing FOD manager. FOD poster winners will be uploaded to the 52FW FOD SharePoint site.

4.1.3. FOD Poster of the Month and Quarter. The poster must promote FOD prevention or awareness. The poster must not include any inappropriate material. If aircraft are depicted on the poster, they must be of the type locally assigned to include aircraft maintained by 726 AMS. The quarterly poster will be chosen from monthly winners. Poster size is limited to 8.5"x 11.5".

4.1.4. All monthly winners will receive a one-day pass and quarterly winners will receive a three- day pass from the 52FW/CV.

4.2. Golden Bolt. The Wing FOD Monitor will manage the Golden Bolt program, which is an incentive program used to raise FOD awareness. The Golden Bolt is a 2" diameter 5" long gold bolt. The Golden Bolt will be placed in flight-line or back shop areas and will not cause a FOD hazard. The individual who discovers the golden bolt will be presented a one-day pass by the 52FW/CV at the quarterly FOD Prevention Committee Meeting.

4.2.1. The 726 AMS FOD Monitors will manage a separate 726 AMS golden bolt program and will report findings to the 52 FW FOD Monitor for quarterly reporting.

4.2.1.1. 726 AMS member who finds the Golden Bolt will return it to the 726 AMS FOD Monitor in exchange for a one-day pass from the 52FW/CV.

4.3. FOD Fighter Award.

4.3.1. FOD Fighter Awards are awarded monthly and quarterly. FOD Fighter Award nominations must be submitted to the 52FW FOD monitor via email using the template found on the 52FW FOD SharePoint site at <https://portal.usafe.af.mil/sites/52FW/CVF/default.aspx>. FOD Fighters will be submitted to the 52 FW FOD monitor no later than last duty day of month via email.

4.3.2. Individuals nominated for the FOD Fighter Award must have performed an action which significantly reduced a FOD hazard(s), or directly contributed to the prevention of a FOD related incident and must have performed this action during the month or quarter being submitted.

4.3.3. At a minimum, monthly winners will receive a one-day pass and quarterly winners will receive a three-day pass from the 52FW/CV.

4.3.4. 726 AMS personnel are encouraged to participate in the Unit and 52 FW FOD Incentive Programs. Nomination should be in a Memo for Record or e-mail format and will contain the nominee's name, rank, and what they did/do to deserve the recognition. Email submissions to

the FOD Monitors NLT the end of the month. 726 AMS member who wins FOD Fighter of the Month will receive a one-day pass from the FOD Monitor to be used at the discretion of their respective Section Chief.

4.3.4.1. 726 AMS FOD Monitors will select squadron winners and submit to the 52 FW FOD Monitor to compete at the wing

Chapter 5

FOD PREVENTION WING REQUIREMENTS

5.1. FOD Prevention Wing Requirements.

5.1.1. All personnel accessing the flightline will adhere to FOD prevention/tool accountability and abide by this instruction when working on or around the airfield. Additionally, all units performing duties on the airfield will have tool control procedures in place; outside agencies are required to have an identifying mark on tools for accountability purposes. All loss/failure to follow procedures outlined will require respective Sq/CC notification. All tool accountability infractions will be documented and briefed to the 52 FW/CV.

5.1.2. Due to the extreme FOD potential, nothing will be placed in the intake hazard area (to include intake lip) that could allow items to be ingested into the intake. Observed instances will be reported per current QA guidelines.

5.1.3. Store all removed fasteners, bolts, screw bags, loose equipment, water bottles and any other items in an area away from the aircraft prior to engine operation.

5.1.4. Ensure all hardware removed without the ability to be temp installed on the aircraft, engine, LRUs and support equipment are properly tagged, marked, and stored. All associated hardware will be placed in a screw bag and/or securely attached to the item or aircraft. All hardware will be labeled with a precise inventory of its contents (i.e., 2 bolts, 2 nuts, 4 washers, etc.).

5.1.5. If the hardware removed from an aircraft/equipment is too large for a screw bag, it will be tagged, capped, or covered, and marked in a manner that will identify it to that aircraft/part and JCN.

5.2. Engine Operations in Low Temperatures.

5.2.1. (52 FW Aircraft Only) With low temperatures, rain, fog, snow, etc., the possibility of engine ice FOD greatly increases. If the MOC determines ICE FOD conditions are present, accomplish the following:

5.2.1.1. (52 FW Aircraft Only) Prior to starting engines, inspect inlet/intake for ice or moisture. If present, remove all ice and moisture from intake prior to starting engine. Additionally, removal of engine antipersonnel screens during ice FOD alert or conditions is allowed.

5.2.1.2. (52 FW Aircraft Only) Equipment will be made available to remove standing water 5 feet behind and 25 feet forward and to the sides of the intake lip prior to engine start.

5.2.1.3. After engine start, ensure that engine anti-ice procedures are followed per the applicable technical data.

5.2.2. (52 FW Aircraft Only) To accomplish inlet observation, a ground observer will be stationed outside the danger zone and if needed will use a flashlight to observe the intake/inlet of the aircraft as the engine(s) is/are being operated. The ground observer will be responsible for the safety of personnel in the immediate aircraft area.

5.2.3. Do not enter the aircraft danger areas for any reason.

5.2.4. (52 FW Aircraft Only) Continually observe air inlet leading edge for ice formation. If ice is observed engine will be shut down IAW applicable technical data. Any time an engine is shut down due to ice formation, the MOC will be notified, and an inlet/intake inspection will be performed.

5.2.5. (52 FW Aircraft Only) Maintenance personnel performing end-of-runway inspection in presence of standing water, snow or ice will use extra caution and have one person monitor up to two intake/inlet lip(s) for ice buildup. End-of-Runway personnel will have brooms and squeegees available to ensure the engine run area is always clear. MOC will be notified if any ice buildup is noted.

5.2.6. 726 AMS and other TDY units will follow airframe specific guidance for possible ice FOD during EOR and aircraft operations.

5.3. Engine Blade Blending Procedures.

5.3.1. All F110-GE-129 engine first stage fan blade anomalies will be entered on Spangdahlem Form 3.

5.3.2. Transient aircraft blade blending will be performed and documented IAW T.O. procedures for the aircraft type.

5.3.3. Only certified personnel identified on the special cert roster (SCR) will accomplish blade blending. Support sections will maintain a list of personnel from the SCR authorized to sign out blade blending kits.

5.4. Flight-line Vehicle Operation.

5.4.1. Government vehicles (GOV) operating in FOD free areas will have a properly secured self-closing lid type container in the bed/cargo area of the vehicle. Vehicles which do not have a container in the bed will have, at a minimum, some style of container with a lid, or a pouch secured in the driver's area, or in an easy access area in vehicle. For similar type vehicles the FOD container will be stored and secured in the same location, to the upmost ability, of all vehicles for continuity. Containers will be secured preferably in a manner to prevent them from tipping over while the vehicle is in motion and marked with FOD.

5.4.1.1. Rental/contractor vehicles will have a minimum of a FOD pouch, can, or some means to control debris while operating in FOD free areas, or be escorted by personnel that have these items.

5.4.2. Vehicle operators who drive on the flightline will inspect their vehicles for cleanliness prior to and after each use and ensure vehicle is always free of debris; trash and FOD containers will be emptied at each shift turnover.

5.4.2.1. Escort personnel will ensure the personnel that they are escorting conduct a vehicle FOD check.

5.4.3. During winter months, FOD checks will include the removal of snow and ice from all vehicle surfaces.

5.4.4. Do not drive or park on unpaved surfaces, except in emergencies.

5.4.5. When reentering a hardened surface, the vehicle operator will collect all debris brought onto the surface by the vehicle and ensure tires and undercarriages of vehicle are free of rocks and debris. If the quantity of debris is too large, Airfield Management or MOC will be notified to coordinate with 52 CES to have a sweeper clean the area.

5.4.6. Any holes found in the floorboard or bed of a vehicle must be immediately/permanently repaired to prevent items from falling through onto aircraft movement areas.

5.4.7. All vehicles will have rubber boots installed around the gearshift and hand brake controls.

5.4.8. Roll Over type FOD inspections will be accomplished on all tires prior to entering the flightline. Vehicle operators will stop, check their vehicle and tires (pull forward to check tire in contact with pavement) for FO at all FOD checkpoints (lines and signs) on the airfield. Prior to exiting the vehicle, operator will set parking brake. Vehicle's ignitions do not have to be turned off when performing a FOD check.

5.4.9. No FOD check is required when crossing any FOD checkpoint designated on the Exemption of Airfield FOD Tire Checks memorandum located on the FOD SharePoint.

5.4.10. GOV's operated on the flightline will have a flashlight and FOD key (pick) attached to the key ring or permanently assigned to and stored in the vehicle. Items permanently stored in vehicle will be documented on the AF1800 (flashlight, first aid kit, spill kit, ice/snow brush, etc.) and vehicle serial number will be etched or permanently marked on these items. FOD picks however, do not require marking if they are permanently attached to an already etched item such as a key ring or flashlight.

5.4.11. All styles of pintle hooks will be always closed. Styles with removable pin will be pinned always closed. Pin will be attached in a manner that secures it to the vehicle with a chain or cable.

5.4.12. Vehicles towing equipment or aircraft with the new style pintle hooks will check pintle hook security by sharply drawing the tow bar or handle upwards and ensure pintle hook is locked in place prior to vehicle movement.

Chapter 6

FOD CHECKPOINT AREAS OF RESPONSIBILITY

6.1. FOD Checkpoint Areas of Responsibility.

6.1.1. Squadron Responsibilities: The sections assigned to FOD checkpoints will monitor checkpoint(s) weekly and will ensure checkpoint area is kept clean of FO, and when installed, will ensure FOD cans are emptied, and flashlights are serviceable. Report inoperable flashlights, issues with the signs or cans and fading paint on checkpoints to the 52 FW FOD Monitor for repair or replacement. FOD checkpoints will be designated as open or closed on the FOD areas of responsibility sheet located on the FOD SharePoint. If the checkpoint is open, all responsibilities in 6.1.1 will be followed.

6.1.2. 52 FW FOD Monitor Responsibilities: The 52 FW FOD Monitor will replace broken or inoperable flashlights and maintain checkpoint signs/cans. Additionally, the 52 FW FOD Monitor will conduct spot checks of all checkpoints for cleanliness.

6.1.3. All applicable units listed on the FOD areas of responsibility located on the FOD SharePoint will conduct FOD prevention procedures daily no later than 1 hour prior to crew shows. During snow removal operations, FOD walks will be postponed until airfield is clear and will be performed prior to any aircraft operations.

6.1.4. If FOD prevention procedures need to be conducted during hours of darkness, members will use significant illumination to identify FO. Maximum participation is essential for an effective program.

6.1.5. If FOD check points are not illuminated during periods of darkness, vehicle operators will use a flashlight during vehicle FOD inspections.

6.1.6. "726 AMS Area" a flight line FOD sweeper will be operated or a FOD walk will be conducted a minimum of once per week on Ramps 5 and 6. During adverse weather situations (e.g., gale force winds, hail, ice, and snow removal operations), FOD walks will be postponed until the airfield is clear.

6.2. Protective Aircraft Shelter (PAS) Foreign Object Criteria.

6.2.1. Prior to working in the PAS, it will be inspected for good housekeeping by the squadron personnel that will use the shelter. See Spangdahlem Air Base (SAB) Form 5, the *PAS Inspection Requirements and Discrepancy Report*. These inspections must be documented on the SAB Form 6, *PAS Daily Verification Sheet* with name, grade, and employee number as a minimum.

6.2.2. All shelters will have the location of the checklist and sign-off sheet standardized.

6.2.3. Squadron and/or flight FOD monitors will inspect PASs weekly at a minimum to ensure they are being properly maintained.

6.2.4. PASs will be cleaned as needed with an annual inspection at a minimum, in addition to the daily prior-to-use inspection. Debris must be removed from under vents, crew chief shacks, and other obstacles.

6.2.5. Both 52 MXG QA and the 52 FW FOD Program Monitor will inspect aircraft shelters and hangars. Evaluations will be conducted per current 52 MXG QA guidelines.

6.2.6. PASs that are exempt from daily FOD walks due to the completion of the PAS inspection requirements for prior to use.

6.3. FOD walk areas of responsibility.

6.3.1. FOD walk areas of responsibility will be posted on 52 FW FOD SharePoint site. This listing is subject to change so monitors must remain vigilant of their duties to brief as such.

6.3.2. All FOD monitors are responsible to ensure the most current version of FOD walk areas of responsibility are being followed and posted on the FOD bulletin board.

Chapter 7

CLOTHING POLICY

7.1. Clothing Policy.

7.1.1. All units performing duties on the airfield will adhere to the flight line clothing guidance in AFI 21-101 and applicable supplements and items listed below.

7.1.2. Remove zipper cords attached to armpit area of the Gortex and APEC jackets.

7.1.3. The no hat areas are established as follows (excluding cold weather):

7.1.3.1. Inside all restricted areas, as well as Ramps 1 and 2.

7.1.3.2. All areas east of the FOD checkpoint at Barksdale Avenue, Ramp 3, lower hot pits and triple arches, Ramp 4 and all maintenance activities east, including the aircraft generation equipment yard, car park areas, access roads for buildings 158, 159 and 160, the entire airfield including the runway, all taxiways, Ramp 5 and 6 aircraft parking areas out to perimeter road and the 726 AMS cargo processing yard (fenced area).

Chapter 8

SWEEPER POLICY

8.1. Sweeper Policy.

8.1.1. The 52 CES Commander, in coordination with the airfield manager, will schedule runway and taxiway sweeper and vacuum operations for maximum utilization possible. The CES Commander will ensure special requests for sweeper service are handled five days a week, Monday through Friday, and will have a sweeper standby on weekends.

8.1.2. CES and airfield management representatives will inspect the entire aircraft pavement areas daily. In addition, airfield management representatives will inspect runways and taxiways upon airfield opening and once during the daily airfield inspection.

8.1.3. The 52 FW FOD Monitor will make bi-monthly checks of the airfield and taxiway areas outside of the controlled movement area in addition to normal inspections.

8.1.4. Contact Airfield Management or MOC when a sweeper is required for any area.

8.1.5. 726 AMS Only; Only qualified personnel will be allowed to sign out the FOD Boss from CTK. Training will be provided by a previously qualified person using the approved training guide.

8.1.5.1. CTK personnel will grant permission, utilizing the electronic tool accountability system (TCMAX), to individuals only after the trainer (previously qualified person) notifies them. This will allow restricted use of the FOD Boss to only trained personnel.

8.1.5.2. Maintenance personnel will document FOD Boss training in G081 using course code SPNG 000003

8.1.5.3. TR personnel will document FOD Boss training within TBA as a WJQS.

Chapter 9

FOD IDENTIFICATION AND REPORTING

9.1. FOD Identification and Reporting.

9.1.1. Any person discovering or suspecting FOD to an aircraft, to include bird strikes, will immediately report the finding to their immediate supervisor or production superintendent who will notify MOC. This information will also be annotated as a Red X on the Air Force Technical Order (AFTO) Form 781, *Maintenance Discrepancy and Work Document*.

9.1.1.1. When FOD is confirmed, the MOC will also notify the 52 FW FOD Monitor, QA, 52 FW Safety, and Propulsion Flight Chief (as appropriate), 52 MXG/CC and the 52 OG/CC.

9.1.1.2. Do not facilitate, repair or clean FOD damaged aircraft, engines, or components until the 52 FW FOD Monitor, 52 FW Wing Safety, or QA has conducted an initial investigation.

9.1.1.3. When suspected or confirmed FOD is discovered, the MOC will be notified immediately.

9.1.1.4. Upon notification, the MOC will immediately notify the 52 FW FOD Monitor and Quality Assurance.

9.1.1.5. If internal engine FOD is confirmed, and the source is determined to be internal to the engine, the engine will be impounded IAW [Chapter 7](#) of AFI 21-101.

9.1.2. Units must make every attempt to determine the root cause of FOD-related mishaps before returning engines and modules to the depot for investigation.

9.2. FOD Identification and Reporting [Transient Aircraft Only].

9.2.1. All transient aircraft FOD incidents, to include bird strikes, will be reported IAW originating base, 726 AMS and/or Air Mobility Command directives.

9.2.2. 52 FW FOD monitor, and command post will also be notified as a courtesy.

9.2.3. The 726 AMS is only responsible for reporting FOD incidents on Air Mobility Command aircraft assigned to them by the 618 Tanker/Airlift Control Center (TACC).

9.3. Cockpit FOD.

9.3.1. (52 FW Aircraft Only) Prior to entering aircraft cockpit, personnel are required to remove all items from their pockets/belt (i.e., pens, change, keys, etc.) and check the bottom of their shoes to ensure rocks, or other foreign objects are not being deposited in the cockpit.

9.3.2. (52 FW Aircraft Only) Tools, small parts and hardware needed to perform maintenance in the cockpit should be placed in a tool bag or pouch. Do not allow small tools, parts, or hardware to be placed on consoles or canopy sills.

9.3.3. The use of drop cloths or barrier paper should be utilized where the potential for items to be dropped into critical or inaccessible areas exists.

9.3.4. Aircrew members must account for all equipment and personal items brought with them following each flight. If items are identified as missing or dropped in the aircraft cockpit during

flight, or during aircraft maintenance, perform an immediate visual inspection of the cockpit. If the object is not found during initial search, a RED X will be entered in the aircraft AFTO Form 781A and MOC will be notified. Continue the search and document all inspection on MXG Form 145, and in applicable aircraft/equipment forms. If it is determined to impound the aircraft, AFI 21-101 and local procedures will be followed for impound procedures.

9.3.4.1. The impound authority will determine the amount of maintenance and inspection time required to attempt to locate the missing tool or item.

9.3.5. 726 AMS and TDY aircraft will follow airframe specific guidance for cockpit FOD rating, and all incidents will be reported to MOC and the 52 FW FOD Monitor.

Chapter 10

DROPPED OBJECT PREVENTION PROGRAM

10.1. Dropped Object Prevention Program.

10.1.1. A dropped object is 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 AFI 91-204. **Note:** Missing Chaff/Flare/Decoy endcaps are not reportable dropped objects.

10.1.2. Investigation. The DOPP Monitor will investigate each dropped object incident.

10.1.2.1. Every effort needs to be made to determine the precise cause to ensure positive corrective action is accomplished. Anytime a materiel or design deficiency is the cause, or suspected cause, a Deficiency Report (DR) will be submitted IAW TO 00-35D-54, even when an exhibit is not available.

10.1.2.2. Investigation results will be distributed to each appropriate work center for inclusion in personnel training and education programs.

10.1.3. Reporting. Units will follow MAJCOM DOPP reporting procedures.

10.1.3.1. Transient Aircraft. The host Wing DOPP Monitor will be responsible to investigate dropped objects from a transient aircraft.

10.1.3.1.1. The host Wing DOPP Monitor will provide the home station Wing DOPP Monitor with sufficient data to generate a report for trending and tracking purposes.

10.1.4. Upon identification of a possible dropped object, the unit reporting the incident will notify MOC, QA and the 52 FW FOD Monitor. The 52 FW FOD Monitor or QA will assign a control number.

10.1.5. Do not facilitate repair of aircraft or replacement of missing objects until the FOD Monitor or QA has conducted an initial investigation.

10.1.6. The 52 FW FOD Monitor or QA, with the assistance of the reporting unit, will investigate each dropped object incident. The reporting unit is responsible for initiating the deficiency report anytime a material or design deficiency is suspected as the cause.

10.1.7. The reporting unit will complete the SAB Form 7, *Foreign Object Damage / Dropped Object Prevention Incident Worksheet*, and route for proper signatures, as follows: Section Chief, Production Superintendent, Aircraft Maintenance Unit (AMU) Supervision, and 52 FW FOD Monitor.

10.1.8. The 52 FW FOD Monitor will file the completed SAB Form 7.

10.1.9. There will be a three-duty day suspense to complete this action.

10.2. Dropped Object Prevention Program Transient Aircraft Only.

10.2.1. Dropped Object Prevention Program Transient Aircraft Only.

10.2.2. All transient aircraft DOPP incidents will be reported IAW originating base, 726 AMS and/or AMC directives. 52 FW FOD Monitor and command post will also be notified as a courtesy.

10.2.2.1. The 726 AMS is responsible for reporting only DOPP incidents on AMC aircraft assigned to them by the 618 TACC.

10.2.2.2. 52 FW FOD monitor will track all transient aircraft DOPP incidents. These will not be charged against the 52 FW.

10.2.2.3. The 726 AMS is responsible for reporting only DOPP incidents on AMC aircraft assigned to them by the 618 TACC.

10.2.2.4. 52 FW FOD monitor will track all transient aircraft DOPP incidents. These will not be charged against the 52 FW.

Chapter 11

DEPLOYED FOD MONITOR

11.1. Deployed FOD Monitor.

11.1.1. If QA personnel are not tasked to deploy, the Aircraft Maintenance Squadron commander will designate an individual as the FOD and DOPP monitor prior to the deployment. Prior to the deployment, the maintenance officer will forward the name of the deployed FOD and DOPP monitor to the 52 FW FOD Monitor. The 52 FW FOD Monitor will provide the necessary training to the deploying FOD and DOPP monitor. All dropped object and lost tool, or item paperwork must be forwarded to home station prior to the last duty day of each month. 11.1.1.2. An electronic copy of the dropped object and lost tool paperwork (e-mail) is encouraged.

11.1.1.3. The deployed FOD and DOPP monitor will: Serve as the point of contact for the lost tool or item, dropped object and FOD issues at the deployed location.

11.1.1.4. Inspect and coordinate FOD walks of the maintenance area.

11.1.1.5. Maintain a log of all lost tool and item reports, dropped object reports, engine FOD damage and blended blades and ensure a copy of the log is forwarded to the 52 FW FOD Monitor. **Chapter 12**

LOST TOOL AND OBJECT PROGRAM 52 FW ONLY.

12.1. Lost Tool and Object Program 52 FW only.

12.1.1. Lost Item/Tool Procedures

12.1.2. NOT USED

12.1.2.1. The 52 FW FOD Monitor will maintain the wing's lost tool/object program.

12.1.2.2. Initiate the lost tool report if tool is not located within the first hour of the initial search.

12.1.2.3. All 52 FW personnel working on/around the airfield will report any lost tool/s and or objects to the 52 FW FOD Monitor (DSN: 452-6224), and complete a digital MXG Form 145, *Lost tool/object report*. All 52 FW and 726 AMS personnel working on/around the airfield will report any lost tool/s and or object/s to the 52 FW FOD Monitor (DSN 452-6223) and complete a digital MXG Form 145, *Lost tool/object report*.

12.1.2.4. Units will obtain lost tool/object control number from the QA office or FOD Monitor for completion of the MXG Form 145.

12.1.2.5. Units will complete the digital MXG Form 145 and will submit it via the respective block on the form within five duty days, unless pre-coordinated with Quality Assurance Chief Inspector/Super-Intendent, completion may exceed five duty days on case-by-case basis. Lost tools/objects will be identified by unit and reported on the quarterly FOD Slides.

12.2. Lost Tool & Object Program 726 AMS only.

12.2.1. The 726 AMS QA section will monitor and maintain the 726 AMS lost tool and object program IAW 726 AMS and AMC directives.

WILLIAM H. MCKIBBAN, Colonel, USAF
VICE COMMANDER, 52d Fighter Wing

Attachment 1

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

AFI 21-101_USAFE_AFAFRICASUP, IC, *Aircraft and Equipment Maintenance Management*, 25 Aug 2020

AFI 33-324, *The Information Collections and Reports Management Program; Controlling Internal, Public, and Interagency Air Force Information Collections*, 22 July 2019

AFI 33-322, *Records Management and Information Governance Program*, 28 Jul 2021 AFPD 21-1, *Air and Space Maintenance*, 1 August 2018

DAFI 21-101, *Aircraft and Equipment Maintenance Management*, 01 October 2021

Prescribed Forms

SAB Form 3, *F110-GE-129 First Stage Fan FOD Survey*

SAB Form 5, *PAS Daily Inspection Requirements and Discrepancy Report*

SAB Form 6, *PAS Daily Verification Sheet*

SAB Form 7, *Foreign Object Damage / Dropped Object Prevention Incident Worksheet*

Adopted Forms

AF Form 1199CD, *Air Force Entry Control Card*

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

DAF 847, *Recommendation for Change of Publication*

MXG Form 145, *Lost tool/object report*

Abbreviations and Acronyms

AFI—Air Force Instruction

AFTO—Air Force Technical Order
AGE—Aerospace Ground Equipment
AMC—Air Mobility Command

AMS—Aircraft Maintenance Squadron

AMU—Aircraft Maintenance Unit
AOR—Area of Responsibility

CC—Commander

CES—Civil Engineer Squadron

CMA—Controlled Movement Area

CV—Vice Commander

CVF—Wing FOD Monitor

DOPP—Dropped Object Prevention Program

FO—Foreign Objects

FOD—Foreign Object Damage **FW**—Fighter Wing

GOV—Government Operated Vehicle

HTS—Harm Targeting System **IAW**—In Accordance With

LRS—Logistics Readiness Squadron **MAJCOM**—Major Command

MOC—Maintenance Operations Center

MOS—Maintenance Operations Squadron **MSG**—Mission Support Group

MXG—Maintenance Group

MXO—Maintenance Operations

OI—Operating Instruction

OG—Operations Group

OSS—Operations Support Squadron **PAS**—Protective Aircraft Shelter

POL—Petroleum Oil and Lubricants **QA**—Quality Assurance

QAP—Quality Assurance Program **SCR**—Special Cert Roster

SFS—Security Force Squadron **TACC**—Tanker/Airlift Control Center

T.O.—Technical Order

TR—Transport

USAFE—United States Air Force Europe

WG—Wing

WJQS—Work center Job Qualification Standard