

**BY ORDER OF THE COMMANDER
WHITEMAN AIR FORCE BASE
(AFGSC)**



**WHITEMAN AIR FORCE BASE
INSTRUCTION 21-1021**

22 FEBRUARY 2023

Maintenance

***FOREIGN OBJECT
DAMAGE (FOD) PREVENTION***

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements DAFI 21-101_AFGSCSUP, *Aircraft and Equipment Maintenance Management* and provides guidance on Foreign Object Damage (FOD) prevention. It is applicable to all personnel entering or working on the flight line at Whiteman Air Force Base (WAFB) including the Air Force Reserve, Air National Guard, and Army National Guard except where noted otherwise. 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 the Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at <https://www.my.af.mil/gcss-af61a/afrims/afrims/>. 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*. This publication may not be supplemented or further implemented/extended. 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 AFI 33-360, *Publications and Forms Management*, 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.

SUMMARY OF CHANGES

This document has been substantially revised and must be completely reviewed.

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1. Overview. This instruction will be implemented to prevent FOD to resources at WAFB. This plan targets three broad areas that WAFB needs to focus on to successfully eliminate damage caused by foreign objects (FO). These areas are: Awareness and Education, Prevention, and Protection.

2. Responsibilities .

2.1. All personnel who work in aerospace maintenance areas, transit aerospace maintenance areas, or conduct off-equipment maintenance will be proactive in the 509th Bomb Wing (509 BW) FOD prevention program and protection of Air Force assets daily.

2.2. FOD responsibilities are clearly laid out and will be followed in accordance with (IAW) DAFI 21-101_AFGSCSUP

2.3. Unit FOD Monitors. The 509th Bomb Wing Vice Commander (509 BW/CV) has determined Squadron FOD monitors will not be required.

2.4. Mission Orientation and Maintenance Refresher Course. 509th Maintenance Group (509 MXG) Training Flight will present a comprehensive FOD briefing to newly assigned personnel during Mission Orientation and annually during Maintenance Refresher, IAW the AFGSC Master Course List. This briefing will include: the magnitude of the FOD problem, sound maintenance procedures/practices, personal responsibility, tool accountability, FOD incentive programs and key areas where unit personnel can help. An annual Wing FOD training email will be sent out in January, and any major incidents will be sent out as required to help impress the importance of FOD.

2.5. Airfield Driving Course. The necessity to maintain vehicles on the airfield free of FOD at all times is one aspect of FOD prevention where individuals can help to eliminate the FOD problem. The squadron airfield driving training will include a segment on FOD prevention requirements/responsibilities for airfield vehicle drivers. This will include a complete roll over tire FOD check at all airfield Entry Control Points (ECPs). Airfield driving trainers will be responsible for ensuring unit personnel are knowledgeable about FOD abatement procedures.

2.6. Accomplish WAFB 509 MXG Form 99, *Aircraft On/Off Equipment Intake/Exhaust Maintenance Checklist*, located on the Quality Assurance (QA) SharePoint, when maintenance is performed in an engine intake or exhaust. The checklist will be completed on the job site and turned into QA or Foreign Object Debris/Dropped Object Program (FOD/DOP) manager within 24 hours of repair completion. Enter a Red X on Air Force Technical Order (AFTO) 781A, *Maintenance Discrepancy and Work Document* stating, "Maintenance being performed in or around engine inlets and exhausts. **Note:** do not operate affected systems." Not required for engine inlet and exhaust inspections only. On uninstalled test cell engines document prior to engine start/after engine shutdown engine inlet and exhaust FOD inspection on the applicable test cell MXG worksheets.

3. FOD Prevention. Another key pillar is preventing FOD from ever occurring. This entails sound work practices combined with good housekeeping and clean-as-you-go practice, to include active supervisor involvement. Compliance with approved maintenance checklists and strict adherence to these checklists can prevent nearly all FOD from ever happening and alleviate most FOD issues. FOD prevention will be accomplished in the following ways:

3.1. Spot Inspections. Quality Assurance inspectors and the 509 BW FOD Monitor will perform weekly spot inspections. The purpose of FOD spot inspections is to check day-to-day FOD awareness of an organization or work center for an effective and meaningful FOD prevention program. These inspections will be conducted weekly on a random basis and documented in the Spot Inspection Log. Inspections will include but are not limited to the following: FOD walks, dock walks, aircraft inspections, aircraft parking spot inspections, support equipment, Composite Tool Kit (CTK) inspections, vehicle inspections, ECP checks, general housekeeping procedures, and any items or areas that would lead to achieving a FOD-free environment. The appropriate agency will be contacted for any area requiring corrective action after an inspection is completed.

3.1.1. FO findings are categorized into 3 zones as defined in the Quarterly MSEP handbook.

3.2. Parts and Tool Accountability. Hardware and tool control is an absolute must. Everyone who performs duties on the airfield or in maintenance facilities is responsible for safeguarding their equipment against loss by ensuring accountability before and after each trip/job performed. Lost or missing tool/equipment items need to be reported to the work center custodian or supervisor immediately. Extreme measures should be taken to locate any missing item(s). If missing item(s) are not located within one hour, the supervisor will contact the Maintenance Operations Center (MOC) office at 660-687-3818 and 509 MXG Quality Assurance office at 660-687-3915 immediately for instructions on further actions. AFGSC Form 145, *Lost Tool/Object Report*, will be completed by the responsible individual(s) and given to the 509 BW FOD Monitor to be filed within 5 duty days.

3.2.1. When an item/tool is found and it is not hardware or a known lost item, the item will be taken to the 509th BW FOD Monitor. The FOD Monitor will notify the 509 MOC to initiate a found item report in an attempt to return the item to its owner. Items may be but are not limited to personal issue items, unmarked tools, or easily identifiable items.

3.2.2. All unauthorized tools or personal items shall be removed from the area and taken off the flight line. Unauthorized items are as follows: multi-tools, pocketknives, personal flashlights, or any other item or device used as a tool but not issued/marked by a support section.

3.3. Due to the unique structure and construction of the B-2 aircraft the 509 BW normally does not have a fastener awareness issue. Trend analysis is used to identify areas and/or deficiencies to determine if a program will be necessary. When required, the 509 MXG QA office will generate a "QA Flash," a local product used to inform personnel of critical FOD/Dropped Object Program, safety and fastener issues that require immediate attention and focus. The "QA Flash" is distributed to all wing levels and will be posted in prominent locations as well as the QA SharePoint.

3.4. New Construction Contracts. All new airfield construction contracts will ensure that construction workers clean up after themselves daily. Additionally, 509 CES and 509th Contracting Squadron (509 CONS) will ensure that all construction contracts include identification of the FOD problems and hazards, airfield driver's FOD responsibilities, and key areas where individuals can help eliminate FOD problems. The 509 BW FOD Monitor will periodically conduct spot inspections on construction areas to ensure compliance and notify 509 CONS when problems are identified.

3.5. Airfield Clothing Policy. With the exception of Security Forces' berets and helmets, hats or caps shall not be worn on the airfield. In addition, any wigs, hairpieces, metal hair fasteners, earrings, spacers, or other jewelry is not authorized on the airfield (see [paragraph 3.8](#) for definition of airfield or flight line). Visitors or observers shall be briefed on the removal of unauthorized items and carrying of objects on the airfield or near jet engines.

3.5.1. Remove any loose items from pockets that may inadvertently fall out (i.e., pencils, coins keys, etc.) prior to donning a bunny suit. Inspect soles of shoes and protective booties for FOD prior to using. **EXCEPTION:** During cold weather conditions the wear of a winter hat, "beanie" (skull cap) or appropriate headgear, is authorized on the airfield, when temperatures are below 65 degrees Fahrenheit. In or around intake danger zones of operating engines, cold weather headgear must snap, button, Velcro, or tie under the neck and must stay securely fastened. **EXCEPTION:** Construction areas on the flight line that require hardhats will have them secured by strap or cord.

3.6. Restricted Area Badges. Restricted Area Badges that are secured with a subdued nylon/cotton cord will be attached to personnel as follows: The first point of attachment will be the nylon/cotton cord secured from the individual to the badge. The second point of attachment will be a metal clip on the badge secured to the individual. Restricted Area Badges will be displayed above the waist. Restricted Area Badges may be displayed with armbands on the right or left arms of individuals. Restricted Area Badges shall be removed within 25 feet of operating engines. **EXCEPTION:** Restricted Area Badges completely secured inside of an armband pouch do not need to be removed.

3.6.1. Jewelry is not authorized to be attached to any part of a line badge lanyard.

3.7. The 509 BW maintenance personnel will ensure that aircraft flight deck FOD is addressed by performing actions outlined in WAFB aircraft forms, AFTO Form 781A, applicable local Job Standardized Tasks (JST), and are performed prior to and after every flight. Remove any loose items from pockets that may inadvertently fall out (i.e., pencils, coins, keys, etc.) prior to entering the crew station.

3.8. The airfield or flight line is defined as the area East of Arnold Ave inside the fence line/restricted area. Areas where aircraft components are broken down and have a risk for FOD to be introduced will be included in this definition for FOD purposes.

4. FOD PROTECTION .

4.1. FOD protection provides the final element of an effective FOD prevention program. FOD protection programs and procedures are designed to eliminate or remove foreign debris from critical areas. FOD protection requirements are as follows:

4.2. Unit FOD Walks. FOD walks must be performed diligently, as they are our last line of defense for preventing FOD. Production Superintendents will ensure a daily FOD walk is conducted on all rows/sites where aircraft launch and recovery operations are to take place. Unit FOD monitors will ensure squadron FOD walks are conducted in an organized manner according to the schedule in this instruction. Unit Areas of Responsibility (AOR) are color coded on the map ([Attachment 2](#)).

4.2.1. FOD walks are important and the need to complete them is not only critical to FOD prevention, but is a mandatory requirement of DAFI 21-101, *Aircraft Equipment and Maintenance Management*. FOD walk areas of responsibility and follow up days and times are listed in [paragraph 4.3.1 thru 4.3.6.2](#) Additionally, spot inspections will be conducted IAW [paragraph 3.1](#) of this instruction. If a scheduled FOD walk is not completed, a FOD walk will be accomplished on the next duty day. If a FOD walk is scheduled on a known down day, the FOD walk may be accomplished the day prior. If for any reason you are unable to meet your scheduled FOD walk day or time, email 509_BW_FOD_DOP@WHITEMAN.AF.MIL or call 660-687-1465 to reschedule. This notification is vital to ensure FOD walks are accomplished and spot inspections are conducted within appropriate time of the scheduled FOD walk.

4.2.2. Prior To the First Sortie of the Day or Convoy.

4.2.2.1. 509 AMXS and 509 MXS personnel will conduct FOD walks within all areas 20 feet west of taxi lane Foxtrot to the front of docks 1-14 prior to the first sortie of the day.

4.2.2.2. 509 MXS will split Monday - Friday daily FOD walks and will cover all areas 20 feet west of taxi lane Foxtrot to the front of dock 1 to the north boundary of Romeo 1, which includes taxi lane Echo.

4.2.2.3. 509 AMXS will cover all areas 20 feet west of taxi lane Foxtrot to Romeo 1 to the front of dock 14, which includes taxi lane Echo. All major pavement damage must be reported to base operations 660-687-3101 immediately. Areas under construction are exempt from this requirement. 509 AMXS is responsible for FOD walks inside of the docks during engine runs and launch tasks. If required, contact MOC at 660-687-3818 for a sweeper.

4.2.2.4. 509 AMXS and 509 MXS are responsible for FOD control of all maintenance docks they possess.

4.2.2.5. The convoy route from the flight line access gate or the red line if using taxiway Charlie will be checked and cleared of all foreign objects prior to munitions convoys. If a B-2 is required for a ceremony, a FOD walk of the path and final parking area will be conducted prior to towing operations.

4.2.2.6. 509 MUNS the Hot Cargo Pad (HCP) will be FOD walked prior to and after its respective mission (i.e., prior to Special Assignment Airlift Mission (SAAM) aircraft arrival and after Massive Ordnance Penetrator (MOP) receipt/shipment).

4.2.2.7. T-38/442d/Army Conduct daily FOD walks of all taxiways within parking areas. This will be conducted prior to the first launch of the day. **NOTE:** Army will follow all established Army Regulations concerning FOD prevention.

4.3. AREA OF RESPONSIBILITY/SCHEDULE OF DAYS/FOLLOW-UP TIMES.

4.3.1. All FOD Walks will be accomplished no later than 0900 on the respective days. [Attachment 2](#) shows areas of responsibility.

4.3.2. MONDAY.

- 4.3.2.1. 509 AMXS is responsible for roadways surrounding Building 33 and 43. From roadway east of Building 33 across the flight line and taxi lane to Romeo 1 & 2, then south to dock 14. The FOD walk will include all areas around docks 7-14 up to the fence behind the docks. On Fly Days, see [paragraph 4.2.2](#).
- 4.3.2.2. MXS is responsible for the roadways east of T-9 and ECP 2, straight out to and around docks 5 and 6 up to the fence to include the West side of T-9 up to the fence. On Fly Days, see [paragraph 4.2.2](#).
- 4.3.2.3. FIRE DEPARTMENT is responsible for the area surrounding the fire station, including the roadway.
- 4.3.2.4. LOGISTICS READINESS SQUADRON is responsible for the area surrounding Building 26, including roadway and fence line.
- 4.3.3. TUESDAY.
- 4.3.3.1. MXS is responsible for the roadways surrounding Building 2 (Propulsion shop), T-4, H-1 (Fuels) and Building 5203 (Test cell). On Fly Days, see [paragraph 4.2.2](#).
- 4.3.4. WEDNESDAY.
- 4.3.4.1. MXS is responsible for the area surrounding Building 7 and from the east side boundary of the Building 5203 and that of Building 5205 straight out to and around docks 1 and 2 up to the fence and all AGE ready lines. On Fly Days, see [paragraph 4.2.2](#).
- 4.3.4.2. MAINTENANCE OPS/WEAPONS STANDARDIZATION SECTION is responsible for the roadway and area surrounding Building 25 to the fence, the 20 feet of ramp area east of ECP 2, south to roadways around H-27 to the east/west, and areas surrounding Building 14.
- 4.3.5. THURSDAY.
- 4.3.5.1. MXS is responsible for the roadways east of the LO building, the full perimeter of LO building, and straight out to and around dock 3 up to the fence. On Fly Days, see [paragraph 4.2.2](#).
- 4.3.5.2. POL is responsible for the refueler parking area, and access roadway.
- 4.3.6. FRIDAY.
- 4.3.6.1. MXS is responsible for the areas between H-1 & T-9, from the fence (west side) straight out to and around dock 4 up to fence. On Fly Days, see [paragraph 4.2.2](#).
- 4.3.6.2. 509 OSS (Aircraft Flight Equipment) is responsible for the roadway and area surrounding Building 32.
- 4.4. DAILY/SHIFT/WEEKLY.
- 4.4.1. It is mandatory that maintenance production areas, vehicles that frequent the flight line and docks will be FOD inspected prior to and after any maintenance activity. Vehicles equipped with magnets will be cleaned and inspected at the beginning of each shift.

4.4.2. ECP's will be inspected periodically throughout the week to ensure that they do not become a FOD hazard. 509 MXS is responsible for ECP 1, 509th Maintenance Operations (509 MXO) is responsible for ECP 2, and 509 AMXS is responsible for ECP 3.

4.4.3. Ensure all trash cans, FOD cans, large garbage dumpsters, etc. in your vicinity, and AOR are securely closed. These items will be double checked during times of high wind to ensure they remained closed. This will prevent additional FO departing from trash cans.

4.4.4. Empty all FOD containers at the end of each shift or when full, whichever comes first.

4.5. Inclement Weather.

4.5.1. During cold, snowy, or wet days it is up to the FOD-walking supervisor to determine if the FOD walk can be done safely. If it is not possible, the supervisor must follow procedures IAW [paragraph 4.2.1](#).

4.5.2. If the FOD walk is canceled for reasons above, a FOD*BOSS should be run in the AOR and the FOD walk will be accomplished on the next suitable duty day.

4.6. Early Sortie Takeoff.

4.6.1. During hours of darkness, it is safest to have the current shift run the FOD*BOSS in the area before the sortie takeoff in place of an enforced FOD walk.

4.6.2. After early sortie takeoff, FOD walks will still be accomplished once the sun rises to allow for adequate visibility and will be completed before 0900 as per [paragraph 4.3.1](#).

4.7. Post-Event FOD Walks.

4.7.1. Post-event FOD walks will be conducted after events on the airfield to include, but not limited to, the following: "Spirit Knight," air shows, 5K Runs, etc.

4.7.2. A mass Wing FOD walk will be conducted of the entire airfield prior to the first sortie of the next flying day. At this time, the Wing FOD Monitor will send out an appendix for the mass FOD walk.

4.8. Sweeper Plan.

4.8.1. 509 CES will comply with the WAFB Sweeper Plan located at the heavy equipment shop ext. 2231. This plan ensures that Alpha, Bravo, Charlie, Delta, Echo, Foxtrot taxiways and runways are swept as scheduled, along with the daily sweeper schedule.

4.8.2. Airfield Management will notify 509 CES of high interest areas that are in addition to the sweeper plan as they are reported to them.

4.9. Vehicle FOD Checks.

4.9.1. Every time a vehicle enters the airfield, personnel will perform roll over FOD tire checks at the FOD check points on all tires. During hours of darkness where sufficient light is unavailable, a flashlight will be used.

4.9.1.1. Inspect tires after a vehicle leaves any road surface while on the flight line immediately prior to reentering paved areas.

4.9.2. Vehicle Control Noncommissioned Officers (VCNCO) will ensure all base vehicles that transit the airfield are equipped with a FOD picker tool, etched with the vehicle number/CTK number (e.g., golf divot tool attached to the vehicle key ring) and a lidded/secured FOD container marked with two-inch contrasting letters. These items will be identified on the AF Form 1800, *Operator's Inspection Guide and Trouble Report*.

4.9.2.1. Any additional items that are stored within the vehicle (i.e., chocks, ice scrapers etc.) will be marked with the vehicle's registration number.

4.10. Vehicle FOD Magnets.

4.10.1. 509 AMXS and 509 MXS will equip, at a minimum, three vehicles per squadron with magnetic bars to help reduce metallic FO on the airfield. These bars should be used on vehicles that frequently access the flight line.

4.10.2. Magnetic bars will hang with a 3-5-inch clearance from pavement surface. Magnetic bars will be inspected and made FOD free daily as per DAFI 21-101. Vehicles utilizing magnets will add "clean magnet at the beginning of every shift" to an available "Other" block of the AF Form 1800.

4.11. FOD Risk Reporting.

4.11.1. Any area where noticeable FOD hazards are identified will be immediately reported through MOC to Airfield Management and the 509 BW FOD Monitor.

4.11.2. This report will then be added to the base sweeper plan to ensure the applicable ramp or runway area is swept or cleared before engine run or taxi operations begin. (See paragraph 4.8.).

4.12. Crew Station FO Prevention.

4.12.1. In aircraft crew stations, FOD prevention is pivotal to the safety of the aircrew and the aircraft. Track and account for all items taken into the crew station. Ensure all items taken into the crew station are removed from the aircraft prior to departure.

4.12.2. If an item is missing, all steps for lost item/tool will be performed as per DAFI 21-101_AFGSCSUP, Chapter 8, Paragraph 8.9.

4.13. -21 Equipment items assigned to aircraft will be marked with applicable tail number.

4.14. Hangar and Work Center FOD.

4.14.1. Hangars and back shops will remain FOD free. The organization owning the hangar will accomplish a FOD walk daily and immediately following the removal of an aircraft from the hangar. Maintenance personnel within the area performing maintenance are responsible for ensuring the area remains FOD free. Fire suppression system receptacles will be kept clean of debris at all times and should be a high focus area during FOD walks and during general housekeeping practices. At a minimum, all hangar and maintenance dock grates will be cleaned by pulling up grates, vacuuming, and spraying down with water semi-annually. Additionally, Centralized Aircraft Support System (CASS), electrical, and hydraulic pits require cleaning in conjunction with annual dock maintenance. Document this cleaning on a database or paper product.

4.14.2. The clean as you go concept will be adhered to on the flight line and in hangars. It is important that proactive housekeeping procedures will be included as a step in every task. The work is not complete until the area is cleaned up.

4.14.3. All areas where aircraft are towed, taxied, or parked, as well as shops and maintenance areas where equipment or components are worked on, entry points to the flight line will be kept free of debris, stones, hardware, etc. Additionally, support sections (tool rooms) and hazardous storage areas will remain FOD free at all times due to the potential for FOD migrating to the flight line or maintenance area.

5. Local FOD Prevention Awareness and Incentive Programs.

5.1. The Golden Bolt is a small tag with a picture of a golden bolt on it. The tag is randomly placed throughout the maintenance community, primarily on the flight line. If found, remove tag, and notify the wing FOD monitors at DSN 975-1465 or return the tag to the QA office. Record the name and phone number of the person who found the tag. Retrieving the tag will earn an individual one Certified Time Off (CTO) day authorized by 509 BW/CV.

5.2. FOD Fighter Award is an award submitted by supervisors recognizing an individual who has demonstrated outstanding FOD awareness that will be awarded quarterly. A significant one-time event may be considered (i.e., retrieval of an item that would have been ingested into an aircraft engine and caused FOD had it gone undetected). Supervisors will submit a letter of nomination in memorandum form stating in detail what the individual did to prevent FO from damaging aircraft or equipment. Give specific instances on why this individual deserves to be recognized as a wing FOD fighter. All nominees will need to give their full name, rank, office symbol, phone number and supervisors name to the Wing FOD Monitor or QA representative for submission. Earning a FOD Fighter award will earn an individual one CTO Day authorized by 509 BW/CV.

5.3. FOD Poster (1 poster selected per quarter). This award is open to any person who wants to draw or create a slogan and poster pertaining to FOD prevention. The poster may be hand drawn or computer generated. Please limit the size to a maximum of 2 feet by 2 feet. The poster must be submitted to 509 CS Knowledge Operations (509 CS/SCXK) flight as a visual aid. Having your poster selected for the quarter will earn you a CTO Day authorized by 509 BW/CV.

5.4. Eagle Eye Award. This award is given to the flight that consistently excels on weekly FOD walks and good housekeeping practices. All FOD will be collected and weighed by a section chief or the wing FOD monitor. A Quarterly Award will be presented to the flight with the most weight collected for the Quarter. This will earn each individual in the flight a CTO Day authorized by 509 BW/CV.

6. Incident and Mishap Investigation .

6.1. Immediately Identify Source of FOD. The location of FOD incident will be reported to Airfield Management to determine if any closure of the area is required. If aircraft impoundment occurs, the aircraft and affected engine will be subsequently impounded. The aircraft will be released from impound upon engine removal IAW DAFI 21-101 and applicable local instructions.

6.2. For any preventable FOD incident, the Impound Official, 509 BW FOD Monitor, and 509 BW Flight Safety shall investigate to identify the source of FOD, where it came from, what element of the program failed to eliminate the FOD, and what steps require additional emphasis, immediate change, or attention. A formal report will be forwarded to the 509 BW/CV and 509 MXG/CC detailing the findings and recommendations.

6.3. Ice FOD (i.e., 1st stage fan blades bent out of contour) confirmed and verified by a qualified Aerospace Propulsion Jet Engine (A-shred) 7-level. Ice FOD will not be a cause for aircraft impoundment.

6.4. The QA representative attached to a B-2 aircraft deployment will be the acting FOD/DOP representative at the deployed location and will work with all investigation authorities involved to determine the root cause of an incident. Upon initial discovery of a FOD or DOP incident the deployed monitor will be notified immediately and in turn will notify home station.

6.5. Bird Strike Procedures.

6.5.1. Individuals identifying bird strikes will make a red dash entry in the AFTO Form 781A, stating the bird strike's location and requires an evaluation by structures personnel. The individual who identified the bird strike will notify the production superintendent of the bird strike.

6.5.2. Production Superintendent will notify MOC of the bird strike and contact structures personnel to evaluate the bird strike prior to the next flight.

6.5.3. Structures personnel will perform an assessment of the bird strike to determine airworthiness of any damage IAW applicable TO's. If the aircraft is airworthy, they will sign off the initial write up as no defects noted in the corrective action block and sign off the evaluation. If required, make a Red dash entry in the next available block in the AFTO Form 781A stating, "bird strike located (enter location), due reinspection by structures after last flight of the week".

6.5.4. Debrief Personnel will ensure that flight crews fill out a Bird Strike report.

6.5.5. MOC will notify Fire and Emergency Services (FES) if personnel are injured. They will then notify the command post and wing safety. If wing safety needs a photographer, route the request through Command Post.

6.5.5.1. MOC will also notify QA, wing FOD monitor, and 509 MXS production superintendent and 509th Maintenance Group Deputy Commander (509 MXG/CD) or designated representative if engine damage is found.

6.5.6. Wing Safety will serve as the focal point for the Bird Aircraft Strike Hazard (BASH) program, comply with the AF Form 853, *Air Wildlife Strike Report* and all requirements of AFI 91-202, *The US Air Force Mishap Prevention Program*, and AFI 91-204_AFGSCSUP, *Safety Investigations and Reports*, and AFI 91-212, *Bird/Wildlife Aircraft Strike Hazard (BASH) Management Program*, and 509 BW Plan 91-15, Bird Aircraft Strike Hazard Reduction Program as they apply to bird strikes.

6.5.6.1. Wing safety will also serve as the collection point for non-fleshy bird remains/swabs.

6.5.7. QA will hold bird remains during non-duty hours for Wing Safety. QA will also remove and retain all non-fleshy bird remains (i.e., feathers, beaks, etc.) if possible. If no non-fleshy remains are present, wet the strike area with water and swab with cotton cloth. Place the cotton cloth in a zip lock bag and retain in QA office for Wing Safety.

MAXWELL D. DIPIETRO, Colonel, USAF
Vice Wing Commander

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

509 BW Plan 91-15, *Bird Aircraft Strike Hazard Reduction Program*, December 2019
AFI 33-322, *Records Management and Information Governance Program*, 23 March 2020
AFI 91-202, *The US Air Force Mishap Prevention Program*, 12 March 2020
AFI 91-212, *Bird Aircraft Strike Hazard Management Techniques*, 31 May 2018
DAFI 21-101, *Aircraft And Equipment Maintenance Management*, 15 Jan 2020
DAFI 91-204, *Safety Investigations and Reports*, 10 March 2021

Prescribed Forms

AFGSC Form 145, *Lost Tool/Object Report*
509 MXG Form 99, *Aircraft On/Off Equipment Intake/Exhaust Maintenance Checklist*

Adopted Forms

AFTO Form 781A, *Maintenance Discrepancy and Work Document*
AF Form 847, *Recommendation for Change of Publication*
AF Form 853, *Air Force Wildlife Strike Report*
AF Form 1800, *Operator's Inspection Guide and Trouble Report*

Abbreviations and Acronyms

1—135th AASF - 1-135th Army Aviation Support Facility
442 FW—442nd Fighter Wing
509 BW—509th Bomb Wing
509 BW/CV—509th Bomb Wing Vice Commander
509 CONS—509th Contracting Squadron
509 CS/SCXK—509th Communications Squadron Knowledge Operations
509 MXG—509th Maintenance Group
509 MXG/CD—509th Maintenance Group Deputy Commander
509 MXO—509th Maintenance Operations
AFGSC—Air Force Global Strike Command
AFI—Air Force Instruction
AFTO—Air Force Technical Order
AFRIMS—Air Force Records Information Management

AGE—Aerospace Ground Equipment
AMXS—Aircraft Maintenance Squadron
AOR—Area of Responsibility
BASH—Bird Aircraft Strike Hazard
BW—Bomb Wing
BW/CV—Bomb Wing Vice Commander
CASS—Centralized Aircraft Support System
CES—Civil Engineer Squadron
CTK—Composite Tool Kit
CTO—Certified Time Off
DOP—Dropped Object Program
ECP—Entry Control Point
FES—Fire and Emergency Services
FO—Foreign Object
FOD—Foreign Object Damage
HCP—Hot Cargo Pad
IAW—In Accordance With
JEIM—Jet Engine Intermediate Maintenance
JST—Job Standardized Tasks
LO—Low Observable
LRS—Logistics Readiness Squadron
MOP—Massive Ordnance Penetrator
MOC—Maintenance Operations Center
MXG—Maintenance Group
MXG/CC—Maintenance Group Commander
MXS—Maintenance Squadron
MUNS—Munitions Squadron
NGTS—Northrop Grumman Tech Services
OPR—Office of Primary Responsibility
OSS—Operational Support Squadron
POL—Petroleum Oil Lubricants
QA—Quality Assurance

SAAM—Special Assignment Airlift Mission

SFS—Security Forces Squadron

TDY—Temporary Duty

VCNCO—Vehicle Control Noncommissioned Officer

WAFB—Whiteman Air Force Base

WSA—Weapons Storage Area

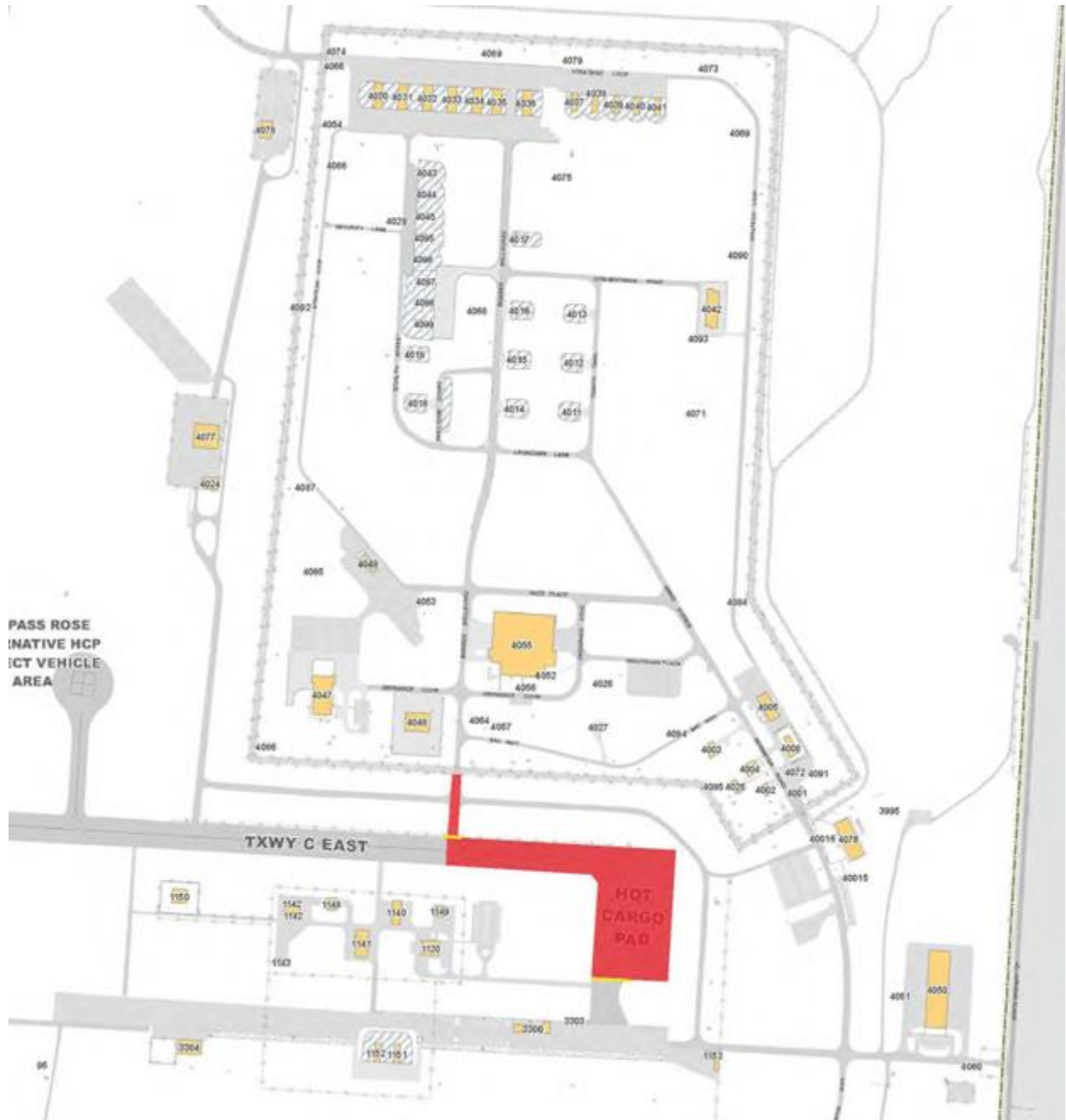
Attachment 2
FLIGHTLINE MAP

Figure A2.1. Flightline Map.



Attachment 3
WSA MAP

Figure A3.1. WSA Map.



Attachment 4

AIRCRAFT ON/OFF EQUIPMENT INTAKE/EXHAUST MAINTENANCE CHECKLIST

Figure A4.1. Aircraft On/Off Equipment Intake/Exhaust Maintenance Checklist.

Aircraft On/Off Equipment Intake/Exhaust Maintenance Checklist		Page 1 of 2		
References for MX Being Performed: AFI 21-101 AFGSC SUP 1 (4 JUNE 2019), AFI 21-101 WAFB SUP1 (25 JULY 2019), T.O. 1B-2A-2-05JG-20-2, T.O. 1B-2A-2-51GS-00-1, T-38C-1, A-10C-2-71TS-1, 1B-2A-2-70GS-00-1		Date of MX Start:		
General Industrial Operations: <i>Referenced as identified</i>		Performing Work Center:		
<p>General Guidelines: IAW AFI 21-101 AFGSC SUP para 11.8.3.9.1 and AFI 21-101 WAFB SUP para 11.8.3.9.1, accomplish this checklist <u>when maintenance is being performed within an Intake or Exhaust</u>. This checklist will be turned into OA (Wing FOO/DOP Manager) within 24 hours of MX completion. This Checklist shall be completed, on the job site, with appropriate INITIALS/DATE/SHIFT of each action unless marked N/A. Info Note: LO Technicians are authorized to wear TYVEX suits while performing MX per applicable technical data. TYVEX zipper will be covered with tape and accounted for upon completion of daily MX. Inspections will be performed wearing only a zipper-less, cotton "Bunny Suit". Either outfit requires pockets to be emptied as well as the soles of the boots to be inspected prior to wearing of aircraft booties.</p>		Initials	Date	Time
1. MDS: _____ Tail Number: _____ Off Equipment ID: _____ Type Maintenance: _____				
2. JCNs: _____ Note: Ensure the aircraft forms (if applicable) has proper documentation of the original discrepancy.				
3. Affected Intake or Exhaust _____ (Each Intake/Exhaust requires a SEPARATE Checklist)				
4. ENTER FIRST RED X in forms stating: "MX being performed around # _____ Engine Inlet (or Engine Exhaust) NOTE: DO NOT OPERATE AFFECTED SYSTEM. See JCN: _____(Item #2 this list)____ Page____ Block____"				
4A. Corrective Action: "MX C/W IAW AFI 21-101_AFGSC_SUP PARA 11.8.3.9.1 see____(original JCN)____Pg____Blk____"				
5. (If Applicable) ENTER SECOND RED X in forms stating: "Barrier Paper applied to # _____ENGINE INLET or EXH (secondaries as req) NOTE: DO NOT OPERATE AFFECTED SYSTEM. See JCN:____(Item #2 this list)____ Page____ Block____"				
5A. Corrective Action: "Demasked Inlet (Exhaust) IAW AFI 21-101_AFGSC_SUP PARA 11.8.3.2 see____(original JCN)____Pg____Blk____"				
6. ENTER THIRD RED X in forms stating: "# _____Engine Inlet (or Engine Exhaust) area due F.O. Inspection after completion of MX. NOTE: DO NOT OPERATE AFFECTED SYSTEM. See JCN:____(Item #2 this list)____Page____ Block____"				
6A. Corrective Action: "F.O. Inspection C/W IAW AFI 21-101_AFGSC_SUP PARA 11.8.3.4 see____(original JCN)____Pg____Blk____"				
7. Inventory and list all tools and materials (I.e. sandpaper, rivets, needles, etc) being used WITHIN Inlet or Exhaust by its EID or nomenclature and annotate it on Page 2.				
8. After MX is complied with, a 7 Level will inspect and verify that the all masking, barrier materials, tools and maintenance residue is removed from the affected area. The Same 7 Level will Sign Off the Inspected area's RED K's that are indicated in block 4, 5, and 6 of this list IAW applicable technical orders.				
10. Turn in 1 Copy of this checklist and all tool inventory lists, within 24 hours of MX completion.				

