

27 SEPTEMBER 2002



Maintenance

**AIRCRAFT IMPOUNDMENT AND
QUARANTINE PROCEDURES**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction establishes policies and procedures to be used when aircraft are impounded or quarantined at McChord AFB. This instruction applies to all maintenance activities and personnel assigned or attached to the 62d Airlift Wing (62 AW).

SUMMARY OF REVISIONS

This document is substantially revised and must be completely reviewed.

1. General. Aircraft involved in certain occurrences must be handled with great care to prevent loss of evidence or information required in preventive or investigative efforts and to prevent damage to equipment or infestation due to insects or rodents. Due to Air Mobility Command (AMC) operational requirements, maintenance managers must consider extraordinary management actions in response to aircraft mishaps, significant system malfunctions, or quarantine efforts. Aircraft repair actions; documentation and evidence pertaining to the problem must be closely monitored and controlled to enhance investigative efforts and thorough corrective actions.

2. Procedures.

2.1. The 62 AW/CC, 62 MXG/CC or their designated Impoundment Authority, IAW AFI 21-101, *Aerospace Equipment Maintenance Management*, will direct impoundment/quarantine of aircraft/equipment and/or records anytime the impounding authority feels that extraordinary measures are needed to ensure the safe operating condition of an aircraft, engine, or piece of equipment. Aircraft, engines and equipment will be impounded under the following conditions:

2.1.1. Following an aircraft mishap reportable under the provisions of AFI 91-204, *Safety Investigations and Reports*.

- 2.1.2. Repeat/recur flight control discrepancies requiring extraordinary management actions as determined by the impoundment authority.
 - 2.1.3. Uncommanded flight control inputs reportable under the provisions of AFI 91-204.
 - 2.1.4. When an in-flight flight control malfunction in manual mode of operation or failure of auto mode to disengage occurs.
 - 2.1.5. Any in-flight fire.
 - 2.1.6. Any engine/ Auxiliary Power Unit (APU) Foreign Object Debris (FOD) that is determined to be unblendable or requires engine tear down.
 - 2.1.7. Loss of thrust to preclude maintaining level flight at a safe altitude.
 - 2.1.8. Engine cowling or engine case penetration rupture or burn-through from internal component failure.
 - 2.1.9. Any flameout or engine failure after engine start until engine shutdown excluding maintenance runs. Also engine emergency shutdown after intent for flight is established.
 - 2.1.10. Any known or suspected contamination such as fuel, hydraulic fluid, oil, or liquid oxygen (LOX).
 - 2.1.11. All cases of departure from intended takeoff/landing surfaces (runway) onto a surface not designed nor intended to normally support landing loads.
 - 2.1.12. Physiological mishaps such as in-flight episodes of physiological or toxicological nature (when confirmed by Flight Surgeon).
 - 2.1.13. When directed by the impound/quarantine authority (i.e., maintenance malpractice or aircraft tampering is suspected etc.).
- 2.2. Aircraft will be quarantined when:
- 2.2.1. Identified by Department of Agriculture or base public health officials as having possible biological contaminants from soils or organic debris.
 - 2.2.2. Evidence of actual/suspected rodents or pest infestation.
- 2.3. Aircraft quarantined will follow impoundment guidance in conjunction with para. 4.

3. Responsibilities.

- 3.1. The MXG/CC or designated representative:
 - 3.1.1. Will approve squadron impoundment official rosters.
 - 3.1.2. Release an aircraft from impoundment when the engine is removed as the corrective action for the discrepancy by transferring the impoundment to the engine and reassigning a new impoundment official.
 - 3.1.3. Release an impounded aircraft after all maintenance actions are completed by signing "Inspected By" block and clearing the Red-X symbol in the **AFTO Form 781A, Maintenance Discrepancy and Work Document**.

- 3.1.4. Release impounded engine/equipment by signing the Engine Work Package, the **AFTO Form 244, Industrial/Support Equipment Record** or GO-81 products as applicable.
- 3.2. AMXS and MXS Commanders or designated representative will:
 - 3.2.1. Submit impoundment official rosters (**Attachment 4**) to the MXG/CC for approval. Roster will then be filed in QA.
 - 3.2.2. Appoint an impoundment official from an approved roster when an impoundment is warranted. For engine impoundments, Contracted engine manager will be the impoundment official.
- 3.3. Maintenance Units will:
 - 3.3.1. Not perform maintenance on aircraft or equipment until released for maintenance by the impoundment official. **Exceptions:** Installing protective devices and covers and oil servicing.
 - 3.3.2. Not offload cargo if aircraft is suspected of contamination outlined in section **2.2.** or aircraft is involved in physiological mishaps in para. **2.1.12.**
 - 3.3.3. Assemble applicable Flight Control Maintenance Team (FCMT) when the Squadron Maintenance Officer or the impoundment official deems necessary.
 - 3.3.4. Submit Product Quality Deficiency Report (PQDR) on parts when required.
- 3.4. Maintenance Operations Center (MOC) will:
 - 3.4.1. Notify the impounding authority and Quality Assurance (QA) of the mishap (in-flight emergency, ground/air abort, FOD, lost tools, etc.).
 - 3.4.2. Notify Wing Safety and verify the mishap/condition with the applicable squadron.
 - 3.4.3. Notify the Contracted Engine Management Branch (EMB) to ensure engine impoundment is annotated in the engine records.
 - 3.4.4. Monitor impoundment status until the aircraft has been released by the impoundment authority.
 - 3.4.5. Lock out aircraft forms in GO-81 Program 9012.
- 3.5. Debrief section will:
 - 3.5.1. Maintain a copy and be familiar with items requiring mandatory impoundment.
 - 3.5.2. Notify the Production Superintendent, QA and MOC of possible impoundment action.
 - 3.5.3. Request aircrew to remain in debriefing until QA arrives.
- 3.6. Quality Assurance will:
 - 3.6.1. Dispatch an inspector to the affected assets. If the asset meets the criteria of paragraph **2.1.** the inspector in coordination with the production superintendent will impound the asset.
 - 3.6.2. Attend debrief for all in-flight emergencies and reportable flight control discrepancies to assist in initial investigation of all conditions which may warrant impoundment.
 - 3.6.3. When necessary, impound all active and inactive records for aircraft/equipment.
 - 3.6.4. Notify MOC when an impoundment is initiated.

- 3.6.5. Insert an **AFTO Form 781A** impoundment preprint (**Attachment 3**), bordered in red in front of the active 781 As and an Aircraft/Equipment Impoundment Official Checklist (**Attachment 2**), into the aircraft forms binder. For equipment forms and maintenance flow packages insert the impoundment checklist and make the following entry: "Equipment Impounded by the 62 MXG/CC for "REASON."
- 3.6.6. Notify the wing FOD NCO of confirmed/suspected bird strikes to an engine, or of any damage/incident related to foreign objects.
- 3.6.7. Review the AFTO Form 781 series/applicable equipment forms, and all paperwork for adequate corrective actions and completeness of required data before the impoundment authority releases the impoundment.
- 3.6.8. Notify MOC of an impoundment release.
- 3.7. Impoundment Official/Team Chief will:
- 3.7.1. Determine what maintenance can be performed and document authorized maintenance actions in the **AFTO Form 781A** or appropriate equipment forms/maintenance work package.
- 3.7.2. Conduct a preliminary investigation; ensure no maintenance is performed that may hinder proper investigation except to safe the aircraft.
- 3.7.3. Ensure MOC has notified wing safety. **NOTE:** Wing safety will determine whether a formal investigation needs to be accomplished under the provisions of AFI 91-204. This does not preclude the safing of aircraft systems or downloading of live ordinance. Do not alter, disrupt, tear down, or test parts until cleared by the wing safety-investigating officer. Work closely with the investigating officer to ensure the timely repair of equipment while preserving valuable evidence.
- 3.7.4. Not release parts from an aircraft impounded for a safety investigation without the Wing Safety Investigating Officer's authorization. Once the safety-investigating officer releases the part from the investigation, the impoundment official may continue IAW standard impoundment procedures.
- 3.7.5. Use all sources necessary Air Force Engineering and Technical Service (AFETS, etc.) and assemble the appropriate technicians. Only highly qualified technicians will be appointed to work impounded aircraft.
- 3.7.6. Assemble the Flight Control Maintenance Team (FCMT) if warranted.
- 3.7.7. Review aircraft records and analysis data to identify any history or contributing discrepancies.
- 3.7.8. Control and limit access to impounded aircraft/equipment and historical records (Jacket Files).
- 3.7.9. Ensure all recoverable data is collected prior to operating systems that may dump stored information.
- 3.7.10. Verify the status of all parts removed and sent to 62 MXS shops for bench check. An AFTO Form 350, **Repairable Item Processing Tag**, bordered in red with the word "IMPOUNDED OPR: (Impoundment Official Name), x (phone)" written on the bottom of the tag will be attached with each part removed from an impounded aircraft/equipment. Coordinate with the QA office and contact the 62 MXS work center prior to determining the disposition of any

parts. All suspected parts should be considered for deficiency reporting through the product improvement office.

3.7.11. Review the applicable maintenance forms for accuracy and adequacy of maintenance and corrective action. Sign off and initial the symbol block for the form review.

3.7.12. Impoundment official will comply with the requirements of the Impoundment Official Checklist and record all significant findings/events on the Impoundment Official Checklist (**Attachment 1**) and ensure that completed impoundment checklist is returned to QA after impoundment is cleared.

4. Aircraft Quarantine.

4.1. Aircraft quarantined with actual/suspected rodents or pests on aircraft.

4.1.1. MOC will:

4.1.1.1. Task the aircraft owning or responsible maintenance organization to assign an impoundment official/quarantine team chief.

4.1.1.2. Notify 62 AW/SE and 62 MXG/QA and inform them of the quarantine.

4.1.1.3. Notify the 62 Civil Engineer Squadron to dispatch an Entomology specialist.

4.1.1.4. Inform the Command Post (62 AW/CP) of the quarantine and request they notify the 62 OG/CC.

4.1.1.5. Enter discrepancy in G081 (if applicable).

4.1.1.6. Contact owning bases MOC (for transient aircraft) and inform them of the quarantine.

4.1.2. The quarantine team chief will:

4.1.2.1. Seal the aircraft until the Entomology specialist arrives.

4.1.2.2. Advise the Entomology specialist of the location of the rodents/pests or the evidence.

4.1.2.3. Ensure all traps and the Entomology specialist removes tracking patches when aircraft is determined rodent/pest free.

4.1.3. To remove an aircraft from quarantine status follow guidance for clearing aircraft impoundment.

4.2. Aircraft quarantined with actual/suspected contaminated soil or organic debris on aircraft.

NOTE: All normal ground handling, servicing and maintenance may be performed on aircraft during the following actions. Use every precaution necessary to prevent soils and organic matter from migrating. Deviations from this checklist must be coordinated and approved through 62 MXG/CC (and/or designee) and the USDA officer.

4.2.1. MOC will:

4.2.1.1. Task the aircraft owning or responsible maintenance organization to assign an impoundment official/quarantine team chief.

4.2.1.2. Notify 62 AW/SE and 62 MXG/QA and inform them of the quarantine.

- 4.2.1.3. Notify the base public health office, Department of Agriculture, 62 CE/CEV and request representatives contact the team chief.
 - 4.2.1.4. Inform the Command Post (62 AW/CP) of the quarantine and request they notify the 62 OG/CC.
 - 4.2.1.5. Enter discrepancy in G081 (if applicable).
 - 4.2.1.6. Contact owning bases MOC (for transient aircraft) and inform them of the quarantine.
- 4.2.2. The quarantine team chief will:
- 4.2.2.1. Enter, in aircraft AFTO Form 781A, a Red X and brief statement giving specific reason for the quarantine.
 - 4.2.2.2. Enter discrepancy outlined in paragraph [4.2.2.1](#) in G081 (if applicable).
 - 4.2.2.3. Seal the aircraft until all agency representatives arrive, determine residue as a light or heavy soil concentration and establish a team to coordinate the cleaning/disinfecting effort.
 - 4.2.2.4. Advise agency representatives of the aircraft condition and coordinate the cleaning/disinfecting through 62 QA/QAE. 62 QA/QAE will coordinate any actions required by Transient Alert/Aircraft wash and hazardous waste management contractors.
 - 4.2.2.5. All aircraft quarantined for soil and debris residue will be cleaned inside an approved wash facility. The Department of Agriculture has inspected soil containment capabilities of Hanger 4 and the Corrosion Control Facility, Building 1160, and designated them Plant Protection and Quarantine (PPQ) approved wash facilities. Coordinate moving the aircraft into a Plant Protection and Quarantine (PPQ) approved wash facility and direct the aircraft to be cleaned IAW TO 1-1-691.
 - 4.2.2.6. Aircraft determined to have light soil residue by the United States Department of Agriculture (USDA) will be cleaned following the guidelines for a major interior wash package.
 - 4.2.2.7. Ensure roller conveyors are removed, ramp toes are installed and ramp lowered.
 - 4.2.2.8. Aircraft with heavy soil residue will be cleaned using the Refurbishment wash preparation package.
 - 4.2.2.9. Ensure ramp toes are installed and ramp lowered; under floor insulation, roller conveyors and ADS rails are removed and isolated for cleaning.
 - 4.2.2.10. Once the aircraft is cleaned, coordinate final inspection with USDA officer.
 - 4.2.2.11. Remove aircraft from the wash facility and ensure the wash facility floor is cleaned with chlorinated water under the direction of base public health officials.
 - 4.2.2.12. When necessary, request base health officials sample and analyze trench drains and sump water.
 - 4.2.2.13. Gain release from quarantine from public health or USDA PPQ officer and the 62 MXG/CC.
 - 4.2.2.14. Clear discrepancy in aircraft forms and G081.

5. Deployed Aircraft Impoundment. This instruction applies to deployed/TDY 62 AW assets (aircraft, engines, and equipment) and will be adhered to by the deployed 62 MXG/CC, or maintenance OIC/NCOIC having authority to sign the AFTO Form 781A discrepancy releasing the aircraft from impoundment. In all cases information relating to the impoundment is forwarded to QA.

6. Transient Aircraft Impoundment. Aircraft in transit at McChord AFB will only be impounded after contacting the aircraft commander and coordinating with the home station. When impoundment is necessary, procedures will be followed as outlined in this instruction. The home station impoundment authority will appoint an impoundment official from the home station.

7. Dispose of impoundment records IAW AFMAN 37-139, Volume 2.

ROBERT R. ALLARDICE, Colonel, USAF
Commander, 62d Airlift Wing

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

AFI 21-101, *Aerospace Equipment Maintenance Management*

AFI 32-1053, *Pest Management Program*

AFI 91-204, *Safety Investigations and Reports*

AFJI 48-104, *Quarantine Regulations of the Armed Forces*

Terms

Impoundment/Quarantine—A period of time for intensified and controlled aircraft management.

Impoundment/Quarantine Authority—The 62d Airlift Wing Commander (62 AW/CC) and 62d Maintenance Group Commander (62 MXG/CC) may direct impoundment/quarantine.

Controlling Agency—The controlling agency will normally be the 62 MXG.

Authorized Personnel—Those individuals directly involved in investigating, managing, troubleshooting, or repairing impounded aircraft or collecting aircraft records, and personnel directly involved with sealing aircraft and eliminating pests, soils and organic debris.

Attachment 2

IMPOUNDMENT/QUARANTINE OFFICIAL CHECKLIST

A2.1. Impoundment/Quarantine Official Checklist.

ALL PURPOSE CHECKLIST		PAGE 1 OF 2 PAGES
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR
IMPOUNDMENT/QUARANTINE OFFICIAL		DATE
NO.	ITEM <i>(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph .)</i>	
A/C ITEM SERIAL NO.: _____ PWC: _____ JCN: _____ DATE/TIME: _____ IMPOUNDMENT OFFICIAL: _____ WING SAFETY INVESTIGATION? YES/NO NAME _____ REASON FOR IMPOUNDMENT (INCLUDE ANY SIGNIFICANT PAST HISTORY): _____ _____ _____ _____ CORRECTIVE ACTIONS/FINDINGS OF IMPOUNDMENT: _____ _____ _____ _____ _____ _____ IMPOUNDMENT RELEASING AUTHORITY: _____ REVIEWING INSPECTOR'S NAME /SIGNATURE: _____ USDA REPRESENTATIVE NAME /SIGNATURE: _____ RETURN TO QUALITY ASSURANCE WHEN COMPLETE		

NO.	ITEM <i>(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph.)</i>			
	<p>A2.1 Review impoundments IAW AFI 21-101 CHP 13, AMC Supp 1 or AMCI 21-101 and AFI 91-204</p> <p>A2.2 Conduct a preliminary investigation in coordination with Wing Safety.</p> <p>A2.2.1 Ensure all recoverable, stored data is collected (OWS, GO-81, TICARRS).</p> <p>A2.2.2 Review appropriate records for discrepancy history.</p> <p>A2.3 Isolate impounded asset using cones, ropes, or placards.</p> <p>A2.4 Coordinate with flight chief, shop chief, or dedicated crew chief as necessary.</p> <p>A2.5 Coordinate required maintenance specialist(s) and support equipment.</p> <p>A2.6 Notify Boeing on impoundment discrepancies as required.</p> <p>A2.7 Provide direct, personal supervision.</p> <p>A2.8 Ensure only impoundment related maintenance actions are performed unless otherwise authorized by the Impounding Authority or the Impoundment Official.</p> <p>A2.9 Ensure no cannibalization actions are taken against the affected asset without specific authorization of the Impounding Authority.</p> <p>A2.10 Ensure all maintenance actions are documented.</p> <p>A2.11 Brief Impounding Authority daily on the progress of impoundment related maintenance.</p> <p>A2.12 When the corrective action will be removal and replacement of a defective engine ensure the impoundment is transferred to the engine. Attach an AFTO Form 350 (tag) to the engine. The word "IMPOUNDED" will be printed in red in the discrepancy block prior to transporting to Jet Engine Intermediate Maintenance (JEIM). Additionally, notify Quality Assurance, who will sign the impoundment statement.</p> <p>A2.13 Ensure a qualified technician signs the "CORRECTED BY" block and the Red X symbol is cleared by a qualified production inspector.</p> <p>A2.14 Impoundment Official will sign the aircraft forms review and initial symbol block prior to seeking impoundment release.</p> <p>A2.15 Report to Quality Assurance for review of all forms.</p> <p>A2.16 Report to Impounding Authority for release of impoundment. Ensure all appropriate background data is on hand.</p> <p>A2.17 Report to Quality Assurance for final review of all forms and RETURN WORKSHEET.</p> <p>A2.18 Notify Maintenance Operations Control of impoundment termination.</p>			

Attachment 3

IMPOUNDMENT/QUARANTINE PREPRINTED 781A

PAGE 1 OF 1 PAGES

DATE FROM		TO		CREW CHIEF		ORGN	LOCATION	MDS	SERIAL NO.
SYM	DATE DISCD	WDC	JCN	DOC NO.	CF TO 781A	DATED	TRANSCRIBED TO 781K DATE	DATE CORRECTED	
X					P I				
DISCREPANCY					CORRECTIVE ACTION				
<u>Aircraft Impounded/Quarantined for :</u>					<u>Aircraft released from impoundment. Refer to the following page and block numbers of AFTO Form 781A dated for corrective actions:</u>				
LAW AWI21-11									
See Page _____ Block _____ of 781A dated _____ for a description of the discrepancy									
					CORRECTED/TRANSFERRED BY		GRADE	EMPLOYEE NO.	
DISCOVERED BY			GRADE	EMPLOYEE NO.	INSPECTED BY			GRADE	EMPLOYEE NO.
SYM	DATE DISCD	WDC	JCN	DOC NO.	CF TO 781A	DATED	TRANSCRIBED TO 781K DATE	DATE CORRECTED	
--					P I				
DISCREPANCY					CORRECTIVE ACTION				
<u>Aircraft released for impoundment/quarantine discrepancy only and /or the following maintenance actions:</u>									
<u>Impoundment official is:</u>									
<u>Date:</u> _____ <u>Time:</u> _____									
<u>(Info Only- No symbol required)</u>					CORRECTED/TRANSFERRED BY		GRADE	EMPLOYEE NO.	
DISCOVERED BY			GRADE	EMPLOYEE NO.	INSPECTED BY			GRADE	EMPLOYEE NO.
SYM	DATE DISCD	WDC	JCN	DOC NO.	CF TO 781A	DATED	TRANSCRIBED TO 781K DATE	DATE CORRECTED	
--					P I				
DISCREPANCY					CORRECTIVE ACTION				
<u>Forms review required by impoundment official after completion of all impoundment discrepancy maintenance.</u>									
					CORRECTED/TRANSFERRED BY		GRADE	EMPLOYEE NO.	
DISCOVERED BY			GRADE	EMPLOYEE NO.	INSPECTED BY			GRADE	EMPLOYEE NO.

Attachment 4**AUTHORIZED IMPOUNDMENT OFFICIALS***EXAMPLE:*

MEMORANDUM FOR 62 MXG/CC

FROM: (Organization Functional Address Symbol)

SUBJECT: Authorized Impoundment Officials

The following personnel from (identify organization) are authorized to function as Impoundment Officials:

NAME	RANK	DUTY TITLE
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FULL NAME, Rank, USAF		
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Commander		
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1st Ind, 62 MXG/CC		
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TO: 62 MXG/QA		
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Approved/Disapproved		
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FULL NAME, Rank, USAF		
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Commander		
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