

**BY ORDER OF THE COMMANDER
56TH FIGHTER WING (AETC)**



LUKE AFB INSTRUCTION 21-117

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Maintenance

PRODUCT IMPROVEMENT PROGRAM

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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OPR: 56 MXG/MXQP

Certified by: 56 MXG/CC
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This instruction implements AFD 21-1, *Air and Space Maintenance*. It applies to all personnel assigned to the 56th Maintenance Group (MXG) and the 56th Logistics Readiness Squadron (LRS). It assigns responsibilities and prescribes procedures relative to AFTO Form 135, *Source Maintenance and Recoverability Code Change Request*; AFTO Form 22, *Technical Order (TO) System Publication Improvement Report and Reply*; AF Form 1067, *Modification Proposal*; Deficiency Reporting (DR) and exhibit handling, Air Force Repair Enhancement Program (AFREP) procedures, Reliability and Maintainability (R&M) Program, and Tool Recycle Program. This instruction replaces 56 FW OI 21-4. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule located at https://afrims.amc.af.mil/rds_series.cfm.

1. Responsibilities: Commanders, maintenance officers, and supervisors are responsible for promoting the use of all Product Improvement Programs (PIP) to include: DR, R&M, AFTO Form 135, AFTO Form 22, AF Form 1067, AFREP, and the tool recycle program.

2. Product Improvement Manager (PIM) will:

- 2.1. Act as liaison between all maintenance functions concerning the PIP.
- 2.2. Maintain logs/data base for status and provide control numbers for all proposals and reports.
- 2.3. Submit proposals to the office of primary responsibility for evaluation.
- 2.4. Ensure all reports are reviewed prior to submission.

- 2.5. Route information about actions taken on proposals to all affected work centers.
- 2.6. Coordinate and ensure a product improvement briefing is conducted as part of the maintenance orientation program.
- 2.7. Ensure product improvement reports are submitted and published in the maintenance evaluation program summary.
- 2.8. Coordinate with Analysis and 56 LRS to retrieve maintenance and supply trend data.

3. Squadron Supervision will:

- 3.1. Ensure full support for all product improvement initiatives.
- 3.2. Submit letters to 56 MXG/MXQ providing the name, rank, office symbol, and telephone number of each squadron or flight primary and alternate DR monitors (must hold the rank of SrA or higher), and also tool recycle program monitors. Supervisors will update appointment letters as necessary.

4. Squadron Monitors will:

- 4.1. Coordinate training of applicable programs as needed for all squadron personnel with the product improvement section (6-6979).
- 4.2. Ensure flight monitors maintain an effective PIP.

5. Flight Monitors will:

- 5.1. Act as the liaison between submitters and squadron program manager.
- 5.2. Review all proposals for completeness, accuracy, and validity prior to submission to the squadron program manager.
- 5.3. Ensure local suspense's are met.

6. R&M requirements:

- 6.1. The PIM has overall responsibility for the R&M Program.
- 6.2. The wing functional managers will organize, conduct, and chair quarterly R&M working group meetings for the following areas:
 - 6.2.1. Avionics.
 - 6.2.2. Engines.
 - 6.2.3. Tactical Aircraft Maintenance Specialists.

6.2.4. Weapons.

6.2.5. Other special areas may be formed on an “as needed” basis.

6.3. 56 MXG Quality Assurance will send a representative to all R&M working group meetings.

6.4. The functional managers will forward the minutes of these meetings to the PIM within 30 days.

7. Deficiency Reporting Requirements:

7.1. Flight Chiefs will:

7.1.1. Ensure designated DR monitors are involved in each DR submitted.

7.1.2. Ensure all pertinent information concerning the deficiency is documented by the responsible organization. If the responsible organization is not the discovering organization, both will work together to complete the DR.

7.1.3. Provide for accurate supervisory review of all completed DRs prior to submission.

7.1.4. Ensure all personnel are familiar with the DR Program.

7.2. Work center supervisors and DR monitors will:

7.2.1. Ensure a review of maintenance and historical records is accomplished and documented on the DR. For defective items received from supply, a DR will be submitted to include tags and labels.

7.2.2. Ensure all DRs are entered into the deficiency report entry and mail system (DREAMS) by the DR monitor.

7.2.3. Maintain status logs for all DRs submitted by the flight.

7.2.4. Contact maintenance analysis for supporting historical data, if required.

7.2.5. Ensure category I DRs are submitted within 24 hours after the deficiency is discovered.

7.2.6. Ensure an AFTO Form 350, *Repairable Item Processing Tag*; two DD Forms 1575, *Suspended Tag-Material*; two DD Forms 1577-2, *Unserviceable (Reparable) Tag-Material* (for XD2 assets); or two DD Forms 1577, *Unserviceable (Condemned) Tag-Material* (for XF3/XB3 assets); and two copies of the DR with a DREAMS report control number (RCN) assigned are secured to the exhibit prior to supply turn-in.

7.2.7. Ensure supply support personnel load current due in from maintenance (DIFM) status and location of assets pending a DR. Supply support personnel will not change DIFM status to MDR

until the DR report/request has been submitted to the product improvement manager. Supply support personnel will maintain a suspense file of all DD Forms 1574-1, *Serviceable Label-Material* for a minimum of 6 months.

7.2.8. Coordinate with supply support personnel to establish procedures to ensure exhibits are held until an RCN is assigned and items are accepted by the 56 LRS Flight Service Center. Ensure supply personnel turn in DIFM items within 2 workdays to avoid delinquent turn-ins.

7.2.9. If required, route exhibit to a local repair shop to ascertain serviceability. Identify part as suspected DR exhibit on the accompanying AFTO Form 350. Forward a completed electronic copy of the DREAMS form to the 56 MXG DR manager for initial quality review.

7.3. 56 MXG/MXQ DR manager will:

7.3.1. Provide assistance and training for work center DR monitors as needed.

7.3.2. Review and finalize reports for the PIM prior to submission. Coordinate changes or corrections with work center DR monitor and squadron supervision if necessary.

7.3.3. Notify the originator when the paperwork is ready for pick-up. Issue the finalized DR paperwork and two prepared DD Forms 2332, *Product Quality Deficiency Report Exhibit*.

7.3.4. Maintain a file of all DRs for a minimum of 1 year from date of close out.

7.3.5. Provide 56 LRS Flight Service Center with sample signatures of the 56 MXG/MXQ DR personnel authorized to sign DD Form 2332.

7.3.6. When exhibit disposition instructions are received from the action point, forward the instructions to the holding activity DR monitor.

7.3.7. Review daily the progress of DRs being held for further information. Notify originating work center and maintenance supervision of incomplete reports in jeopardy of exceeding the time limits in Technical Order (TO) 00-35D-54, *USAF Deficiency Reporting and Investigating System*. Delete DRs that exceed the time limits specified in TO 00-35D-54 if the originating work center fails to act to complete the report.

8. Deficiency Reporting Procedures:

8.1. An individual who identifies a part as a suspected DR exhibit will contact their work center DR monitor for advice. The work center DR monitor will determine if the deficiency meets DR reporting criteria by referencing TO 00-35D-54. The 56 MXG/MXQ DR manager can be contacted if further assistance is required.

8.2. For DIFM parts being held as DR exhibits, contact 56 LRS Flight Service Center within 2 days. Expendable items will also be held as exhibits. All exhibits will be kept in an "as is" condition. Repair of an exhibit will not be attempted unless approved in writing by the 56 MXG/MXQ DR manager.

8.3. The exhibits will be placed in the DIFM holding area. Items will be secured and picked up by 56 LRS Flight Service Center personnel during DIFM runs, including expendable exhibits coded XB3. Except for historical records, only tags identifying an exhibit will go with the exhibit. All original container XB3 tags will be removed prior to pickup and delivered to the 56 MXG/MXQ DR manager.

8.3.1. The equipment account in-use detail designated as a DR exhibit will be accompanied by an AF Form 2005, *Issue/Turn-in Request*. The 56 LRS Flight Service Center will process the exhibits.

8.3.2. Explosive DR exhibits under control of the Munitions Accountable Supply Officer will be stored in the munitions areas, segregated from the serviceable stock, and readily identified as DR exhibits.

8.3.3. Units turning in munitions items will annotate the remarks section with "DR Exhibit" on the AF Form 2005, to assist in tracking.

9. Controlling and Handling Requirements for DR exhibits:

9.1. The 56 LRS Flight Service Center will:

9.1.1. Establish a holding area for DR exhibits.

9.1.2. Inspect DR paperwork (3 Copies) to ensure a RCN has been assigned. Ensure applicable condition tags are filled out for turn-in and verify the DD Forms 2332 (2 ea.) are signed by authorized 56 MXG/MXQ DR personnel.

9.1.3. Verify that the serial number, part number, national stock number, and the contract number from the DR exhibit identification tag matches the DR paperwork and the exhibit.

9.1.4. Control classified DR exhibits in a secure area until disposition instructions are received from the 56 MXG/MXQ DR manager.

9.1.5. Upon receipt of a DR exhibit, attach and maintain a copy of the DR paperwork (JDRS-Deficiency Request) on the exhibit.

9.1.6. Process exhibit shipment within 2 calendar days (Category 1 DR) or 3 workdays (Category 2 DR) upon receipt of disposition instructions. Exhibits will be taken to 56 LRS/LGRTC, Cargo Movement. If shipping or disposition instructions are received from other than the 56 MXG/MXQ DR manager, notify the 56 MXG/MXQ DR manager immediately and provide a copy of the disposition instructions.

9.1.7. Prepare DD Form 1348-1A by annotating the address contained in the disposition instructions.

9.1.8. Upon shipment of exhibit, provide the 56 MXG/MXQ DR manager with a copy of the DD Form 1348-1A annotated with the RCN and turn-in document number. Provide the action point,

and other appropriate agencies, information relevant to the exhibit shipment to include tracking control number.

9.1.9. Contact the 56 MXG/MXQ DR manager after holding an exhibit 30 days to request disposition instructions, if none have been provided. Continue to hold exhibit up to 15 days after the initial follow-up if a written request is made by the 56 MXG/MXQ DR manager, or longer if requested by the System Program Office.

9.2. The 56 LRS/LGRTC, Cargo Movement will:

9.2.1. Ship all DR exhibits in accordance with AFI 24-201, *Cargo Movement*.

9.2.2. Provide assistance to locate exhibits that are lost or misrouted in shipment.

10. Functional Responsibilities for AFREP initiatives:

10.1. The squadron commander or OIC, Quality Assurance will approve non-critical assets. Repair initiatives will be restricted to the provisions of AFI 21-123 and AETC Supplement 1, *Air Force Repair Enhancement Program (AFREP)*.

10.2. Maintenance organization will:

10.2.1. Coordinate repair priorities for AFREP initiatives with AFREP.

10.2.2. Request and receive approval by submitting AFTO Form 135 prior to:

10.2.2.1. Repair parts or equipment not identified for local repair.

10.2.2.2. Perform maintenance or troubleshoot beyond the authority contained in formal technical data.

10.2.2.3. Using equipment or tools not authorized by technical data.

10.2.3. Describe the specific repair to be accomplished in detail.

10.2.4. Maintain an AFREP container and drop off potential or AFREP identified assets.

10.2.5. If adequate formal technical data does not exist, the organization will:

10.2.5.1. Submit an AFTO Form 22, an AFTO Form 135, or an AF Form 1000, *IDEA Application*, as appropriate, to the Technical Order Improvement Program e-mail address ([luke t o improvement@luke.af.mil](mailto:luke_t_o_improvement@luke.af.mil)).

10.2.5.2. If an AFTO Form 22, AFTO Form 135, or AF Form 1000 is approved, develop a local checklist, work card or job guide in accordance with (IAW) Technical Order Distribution Office procedures until formalized procedures are obtained.

10.2.6. 56 MXG QA subject matter expert will evaluate the initial repair parts or technical procedure requested, with emphasis on safety precautions and adequacy of technical data.

10.3. AFREP personnel will:

10.3.1. Request approval, by submitting an AFTO Form 135, for any initiatives generated by AFREP personnel prior to local or contract repair/purchase.

10.3.2. Maintain a file of all parts and procedures approved for repair, along with all original supporting information.

10.3.3. Ensure coordination has occurred with the Air Logistics Center (ALC) item manager/equipment specialist to keep them informed of all new initiatives and to obtain their input/feedback about the initiative. **NOTE:** When an initiative achieves full approval for local, MAJCOM, or Air Force wide adoption, ensure consumption data and quantities of items repaired are reported to HQ AETC/LGM for relay to the applicable item manager.

11. Tool Recycle Program:

11.1. Maintenance organization personnel will:

11.1.1. Utilize the tool recycle program by checking for serviceable tools prior to purchase from an outside source.

11.1.2. Turn in unneeded and/or excess tools into AFREP for reutilization IAW 56 FW OI 21-2, *Tool and Equipment Management*.

11.1.3. De-etch and clean serviceable tools before delivery to AFREP.

11.1.4. Accomplish a database entry or AFREP recyclable tool issue sheet prior to requisitioning tools.

11.2. AFREP personnel will:

11.2.1. Screen incoming tools for etching and serviceability (IAW TO 32-1-101, *Use and Care of Hand Tools and Measuring Tools*) and place into storage bins.

11.2.2. Process unserviceable and unneeded tools for monthly Defense Reutilization and Marketing Office turn-in.

11.2.3. Ensure current organization appointment letter authorizes customer to requisition tools.

11.2.4. Verify that the database or AFREP recyclable tool issue sheet is filled out correctly prior to issue of tools.

11.2.5. Track tools for cost avoidance and savings to the wing if needed, not for tool control.

12. Technical Order Improvement Program:

12.1. Submitters will:

12.1.1. Route all AFTO Form 135, AF Form 1067, and AFTO Form 22 inputs through the appropriate supervision prior to submission to the Technical Order Improvement Program e-mail address ([luke t o improvement@luke.af.mil](mailto:luke_t_o_improvement@luke.af.mil)).

12.1.2. Ensure proper format is used for AFTO Form 22, AF Form 1067, and AFTO Form 135.

12.2. TO Improvement manager will:

12.2.1. Route AFTO Form 22 to appropriate Quality Assurance Inspector to ascertain validity.

12.2.2. Process submissions IAW TO 00-5-1, *AF Technical Order System*, and route to appropriate MAJCOM and ALC.

12.2.3. Maintain an AFTO Form 22 suspense file. Destroy all disapproved AFTO Forms 22 after 1 year.

13. Adopted Forms:

DD Form 1348-1A, *Issue Release/Receipt Document*

DD Form 1574-1, *Serviceable Label-Material*

DD Form 1575, *Suspended Tag-Material*

DD Form 1577, *Unserviceable (Condemned) Tag-Material*

DD Form 1577-2, *Unserviceable (Reparable) Tag-Material*

DD Form 2332, *Product Quality Deficiency Report Exhibit*

AFTO Form 22, *Technical Order (TO) System Publication Improvement Report and Reply*

AFTO Form 135, *Source Maintenance and Recoverability Code Change Request*

AFTO Form 350, *Repairable Item Processing Tag*

AF Form 1000, *IDEA Application*

AF Form 1067, *Modification Proposal*

KURT F. NEUBAUER
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Commander

Attachment:

Glossary of References and Supporting Information

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

AFPD 21-1, *Air and Space Maintenance*

AFI 21-123 and AETC Supplement 1, *Air Force Repair Enhancement Program (AFREP)*

AFI 24-201, *Cargo Movement*

AFMAN 33-363, *Management of Records*

TO 00-5-1, *AF Technical Order System*

TO 00-35D-54, *USAF Deficiency Reporting and Investigating System*

TO 32-1-101, *Use and Care of Hand Tools and Measuring Tools*

56 FW OI 21-2, *Tool and Equipment Management*

Terms

Air Force Repair Enhancement Program (AFREP): Optimizes Air Force resources by enhancing the wing-level repair capability of aerospace parts and equipment.

Deficiency Report (DR): A document used to identify, report, and resolve deficiencies on military weapon systems.

Initiative: A task or method that fulfills the AFREP purpose and is not currently authorized or required.

Master Initiative Control Record: An information folder and/or computer database containing the proposed initiative, technical data references, background information, drawing, supply information, message traffic, and the item manager's preliminary feedback.

Non-Critical Assets: Assets that do not affect safety or jeopardize mission capability.

Product Improvement Manager (PIM): Manages and promotes various on line product improvement, reliability, and maintainability programs.

Reliability and Maintainability (R&M): Program for improving functional systems e.g., AGE, airframe, avionics, commodities, engines, TMDE, and weapons.

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Safety critical assets: Assets whose failure could injure personnel, damage property, or jeopardize mission capability.