Administrative Change to OO-ALCI21-103, N*on-Conforming Line-Routed Assets*

OPR: OO-ALC/QAX

To bring the instruction into compliance with DAFMAN90-161, *Publishing Processes and Procedures*, paragraph 4.5.10.

The publication signature block is hereby changed to:

"RICHARD W. GIBBS, Brigadier General, USAF; Commander, Ogden Air Logistics Complex."

24 JANUARY 2023

BY ORDER OF THE COMMANDER
OGDEN AIR LOGISTICS COMPLEX

OGDEN AIR LOGISTICS COMPLEX
INSTRUCTION 21-103

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Maintenance

NON-CONFORMING LINE-ROUTED ASSETS

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(Mr. Thomas Hales)

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This instruction establishes responsibilities and defines local procedures for submission, receipt processing and investigation of Non-Conforming Line-Routed Assets between maintenance groups within the Ogden Air Logistics Complex (OO-ALC). This instruction will not affect any internal processes for a product not leaving ownership of a maintenance group. This instruction supports Air Force Sustainment Center Manual (AFSCMAN) 21-102, *Depot Maintenance Management*. This instruction applies to all military and civilian personnel in OO-ALC. Ensure all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual 33-363, *Management of Records*, and disposed of in accordance with (IAW) the Air Force Records Information Management System Records Disposition Schedule. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional chain of command.

1. Purpose.

1.1. Non-Conforming Line-Routed Assets provide OO-ALC with a means of identifying and resolving product deficiencies on line-routed items between maintenance groups in a timely manner. It provides feedback to the owning organization on the resolution of non-conformances reported by their organization for product and services that did not meet required form, fit or function as required by technical order or technical specifications. The process aids in reducing rework by eliminating the causes of non-conformances through sound corrective and preventative actions on known product, process or service inconsistencies. The Quality Assurance (QA) section within each maintenance group will serve as support point and will be the point of contact (POC) for the support point functions for all incoming, and the originating point for all outgoing non-conforming line-routed assets. QA will ensure, through program oversight, non-conformances are processed in accordance with this instruction.

1.2. Provides an avenue for maintenance organizations to report non-conformances on products (line routed items) or services produced or performed by another maintenance group not meeting form, fit or function required by technical order or technical specification.

1.2.1. All OO-ALC employees are empowered and obligated to report any non-conformances identified on delivered products and services to their supervisor and through the Non-Conforming Line-Routed Assets reporting process.

2. Non-Conformance Reporting Criteria.

2.1. Non-Conformances that impact the form, fit or function of components, systems or equipment shall be reported through the Non-Conforming Line-Routed Assets process to the appropriate managing organization. Non-conformances shall be identified as major or minor according to their impact to mission and/or safety.

2.2. The non-conformance category and associated risk priority is used to capture the severity of the condition by relative importance and urgency of the response. The submitting organization will be diligent in categorizing non-conformances as major or minor. Each non-conformance must be considered for its overall mission impact and safety requirements.

2.3. Major non-conformances are defined as a condition that could endanger personnel, jeopardize equipment reliability, affect safety of flight, or warrant discontinuing process or equipment operation.

2.3.1. Major non-conformances require the immediate attention and response by both the owning and producing organizations. Report all major non-conformances to the applicable organization within 24 hours or first duty day after identification of a non-conformance.

2.4. Minor non-conformances are defined as a condition that could not endanger personnel, jeopardize equipment reliability, affect safety of flight, or warrant discontinuing process or equipment operation.

2.4.1. Minor non-conformances impede or constrain the owning organization from successful mission accomplishment. Report all minor non-conformances to the applicable organization within 2 duty days of identification of non-conformances.

3. Deficiency Reporting.

3.1. All internal non-conforming line-routed assets will be reported using the Standard Form (SF) 368, *Product Quality Deficiency Report (PQDR).*

3.2. All non-conforming line routed assets will be reported and maintained in the Maintenance One (MX1) Non-Conforming Asset database.

3.3. All Non-Conforming Line-Routed Assets will be investigated and results input into the MX1 Non-Conforming Asset database within 5 duty days of notification of non-conformance.

3.4. All non-conforming line-routed assets will be reported in the support points monthly Quality Management Review (QMR) using OO-ALC Non-Conforming Quad Chart. (**Attachment 4**).

4. Responsibilities.

4.1. Originator is the individual who discovers/identifies a non-conformance that limits or restricts an item or system from fulfilling its intended purpose. The originator will:

4.1.1. Immediately notify their supervision of nonconforming workmanship or product.

4.1.2. Originator and supervision initiates the SF 368 using the instructions in Section 5 and **Attachment 2** to provide a detailed problem summary that clearly substantiates the report.

4.1.3. Assess the impact and recommends the non-conformance category based on mission impact and safety requirements.

4.1.4. Secures the exhibit (part/component/asset). All maintenance activity will cease on the asset except to safe the item, equipment, and/or to isolate the area.

4.1.5. Identifies, segregates and controls the applicable part/component to ensure the component and supporting data are secured and available for evaluation. No other actions (maintenance) will be performed on the part/component until support point releases part/component back to originator.

4.1.6. When an obvious workmanship/manufacturing non-conformance exists, identify any additional assets and report the exact or suspected number of defective items. Applicable when two or more assets are delivered with the same or similar defects.

4.1.7. Upon completion of investigation by the support point, the originator will coordinate with the organization who performed the work on resolution of non-conformances reported by their organization. Determine if, item(s) can be repaired in place or if will they require routing back to workcenter to perform repairs.

4.2. Workcenter supervisor reviews and forwards all SFs 368 to the originator's group QA office (originating point) for processing.

4.3. Originating point holds the overall Non-Conforming Line Routed Asset process management responsibility for the submitting organization. This function is performed by the originator's group QA office.

4.3.1. Interacts with the originator to ensure non-conforming line-routed assets are valid, accurate, and complete. If not, either further substantiate or return to the originator for further examination.

4.3.2. Validates the non-conformance category as major or minor.

4.3.3. Ensures applicable exhibits are available, secured, and properly identified.

4.3.4. Ensures all documentation to include routing document, Work Control Documents (WCD) and work authorization documents are maintained with the exhibit for use during investigation.

4.3.5. Ensures all pertinent report information required by Section 5 and **Attachment 2** are included when submitting the SF 368 to the support point. Missing or incorrect data will only delay or even stop the non-conforming asset investigation process. **NOTE:** If the originator cannot provide substantial information and documentation of the defect, the report shall not be submitted.

4.3.6. Prepares final SF 368 and submits the completed non-conforming line-routed assets via the MX1 Non-Conforming Asset database IAW the times prescribed in section 3. Non-conforming line-routed assets will be reported in the MX1 Non-Conforming Asset database.

4.3.7. Notifies support point QA POC for non-conforming line-routed assets by e-mail of impending SF 368 that is documented in the MX1 Non-Conforming Asset database as prescribed in Section 2 of this document.

4.3.8. Tracks progress of the report through resolution and updates the originator as significant events and status changes.

4.3.9. Remains in constant contact with the support point to provide feedback to the owning organization on resolution of non-conformances reported by their organization. Follow-up on reports that appear to be languishing with no action. If no initial response or update is received by the suspense date, will contact the support point for status.

4.3.10. Reviews closing and final reports for complete and thorough resolution. Ensures the originator has the opportunity to review and if appropriate, challenge the resolution actions.

4.4. Support point maintains active oversight of non-conforming line-routed assets assigned to them, monitors non-conforming line-routed assets metrics for trends, and advocates continuous process improvement within organization. This function will be performed by the appropriate group QA office.

4.4.1. Monitors MX1 Non-Conforming Asset database for notification of incoming non-conforming line-routed assets .

4.4.2. Assigns appropriate Quality Assurance Specialist (QAS) to conduct an investigation on the reported non-conforming components/services.

4.4.3. Support point will notify originating point and responsible production section upon completion of investigation. The responsible production section who produced the asset/equipment will then direct the follow on course of corrective action and/or maintenance activities to be completed.

4.4.4. Tracks progress of all reported non-conforming line-routed assets assigned through resolution and updates the originating point with significant events and status changes.

4.4.5. Provides justification to originating point when investigations will exceed timeline standard of 5 duty days.

4.4.6. Completes non-conforming line-routed assets investigative report via MX1 Non-Conforming Asset Database in accordance with the times prescribed in Section 3.

4.4.7. Prepares final Non-Conforming Line-Routed Assets report using OO-ALC Non-Conforming Line-Routed Assets Quad Chart (**Attachments 3** & **4**) for submission into support points QMR.

5. Standard Form 368.

5.1. Instructions for completing the SF 368 are provided below and in the sample SF 368 in (**Attachment 2**).

5.1.1. Category - A Category I non-conformance is described as an item that could cause loss of life or catastrophic failure of a major weapon system (MAJOR). Category II non-conformances are those which are not in Category I (MINOR).

5.1.2. Report Control Number - Unique number assigned to identify the non-conforming line-routed assets. This is the MX1 Non-Conforming Asset database control number assigned to the non-conforming line-routed assets once the originating point inputs the non-conforming line-routed assets information into MX1 Non-Conforming Asset database.

5.1.3. Date - The date the SF 368 is filled out.

5.1.4. Block 1a. From (Originators Office) - Complete organizational identifier of individual who discovered non-conforming parts or services, example (709 MXSG/MXDEFTD).

5.1.5. Block 1b. Originator Name, Phone Number - Provide name and telephone number of the individual who will serve as a contact for questions regarding the defective parts or services.

5.1.6. Block 2a. Technical Order (Screening Point) - The originating point will input the name of the screening point. This should be organizational identifier (OO-ALC/QASX), within the group which produced the product.

5.1.7. Block 2b. Screening Point Name, Telephone Number - Name and telephone number of the screening point POC.

5.1.8. Block 3. Description of Deficiency - A comprehensive description of the non-conformance to include circumstances. Explain, to the best of your ability, what is wrong with the item. Explain how the item does not function with relating parts or assemblies. Include specific drawings, specifications, regulations, instructions, or contracts. If an item is dimensionally incorrect, list the actual dimensions as well as the source of the correct dimensions (technical manual/drawing or comparative measurement of the old item). To the extent possible also include the following: Condition of packaging when received; condition of part when removed from packaging; was defect discovered prior to

or after installation; how was the non-conformance discovered; how was the non-conformance confirmed; were there any ID markings or stamps on the non-conforming item?

5.1.9. Block 4. Date Deficiency Was Discovered - Date when non-conformance occurred or was discovered.

5.1.10. Block 6. Deficient Item Nomenclature – The name of the non-conforming item.

5.1.11. Block 10. Quantity

5.1.11.1. a. Received - Enter the total number of items or parts received.

5.1.11.2. b. Inspected - Enter the total number of items inspected.

5.1.11.3. c. Deficient - Enter the quantity found non-conforming of those inspected.

5.1.12. Block 11. Serial Number - Enter the serial number of the non-conforming items as applicable. If unknown or does not apply, check respective boxes for Unknown or N/A. If multiple numbers are being reported, provide additional numbers in Description of Deficiency, Block 3.

5.1.13. Block 13b. Document Number - Work Control Document control number and sub operation number for non-conforming item

5.1.14. Block 20. Location of Deficient Material (e.g. building, dock, bay) - Enter the current location where the non-conforming item is currently being held (be specific).

6. Transferring Standard Form 368 to MX1.

6.1. Instructions for transferring the information provided on the SF 368 into the MX1 Non-Conforming Asset database. (**Attachment 3**).

6.1.1. Title - Block 6. Non-Conforming Item Nomenclature.

6.1.2. Priority - ???

6.1.3. Input Type - Select Non-Conforming Line-Routed Asset.

6.1.4. Category - Major or Minor.

6.1.5. Date Discovered - Block 4. Date Non-Conformance was discovered.

6.1.6. Item Nomenclature - Block 6. Non-Conforming item nomenclature.

6.1.7. Quantity - Block 10. Quantity.

6.1.8. Serial Number - Block 11. Serial Number.

6.1.9. WCD Control # - Block 13b. Document Number.

6.1.10. Item Location - Block 20. Location of Non-Conforming material.

6.1.11. Originator - Block 1b. Originator Name.

6.1.12. Responsible Group - Block 2a.

6.1.13. Finding - Block 3. Description of Non-Conformance.

6.1.14. Evaluator Notes - Results from evaluator's investigation should provide a detailed description of what happened. Include events leading up to what caused the non-conformance as appropriate. Identify the date, time, and location and make sure to provide enough detail that someone who is not familiar with the equipment or processes can get a clear understanding of what happened.

6.1.15. Attachments - Attach the original SF 368 and any documentation or photos pertinent to the investigation.

ERIC E. FOX, NH-04, DAF
Vice Director, Ogden Air Logistics Complex

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFSCMAN 21-102, *Depot Maintenance Management*

Prescribed Forms

None

Adopted Forms

SF 368, *Product Quality Deficiency Report (PQDR)*

Abbreviations and Acronyms

AFSCMAN—Air Force Sustainment Center Manual

IAW—In Accordance With

MX1—Maintenance One

OO-ALC—Ogden Air Logistics Complex

POC—Point of Contact

PQDR—Product Quality Deficiency Report

QA—Quality Assurance

QAS—Quality Assurance Specialist

QMR—Quality Management Review

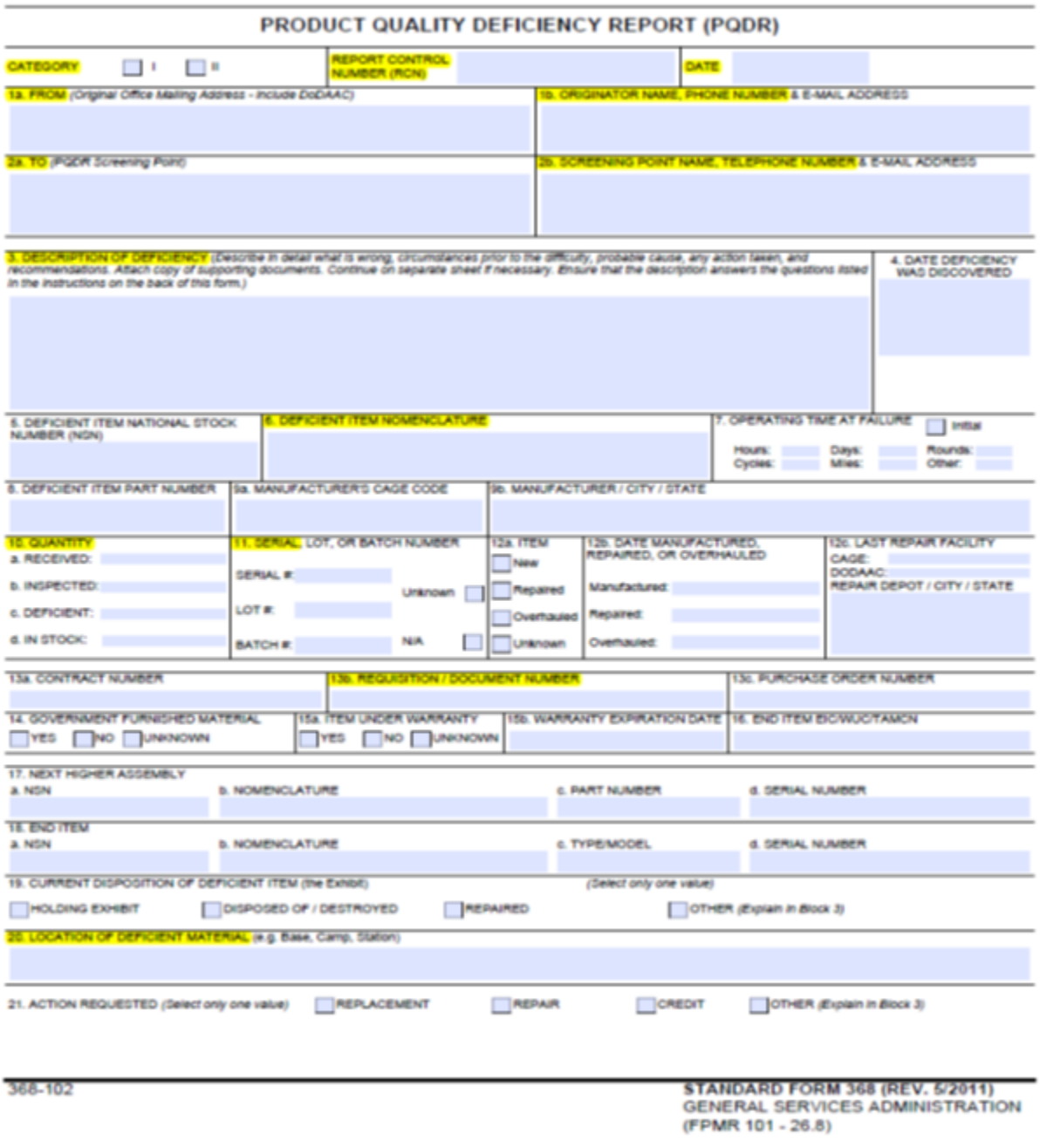
SF—Standard Form

WCD—Work Control Document

Attachment 2

PRODUCT QUALITY DEFICIENCY REPORT (PQDR)

Figure A2.1. Sample SF 368.



PRODUCT QUALITY DEFICIENCY REPORT (PQDR)

CATEGORY ☐ I ☐ II | REPORT CONTROL NUMBER (RCN) | DATE

1a. FROM (Original Office Mailing Address - Include DoDAAC) | 1b. ORIGINATOR NAME, PHONE NUMBER & E-MAIL ADDRESS

2a. TO (PQDR Screening Point) | 2b. SCREENING POINT NAME, TELEPHONE NUMBER & E-MAIL ADDRESS

3. DESCRIPTION OF DEFICIENCY (Describe in detail what is wrong, circumstances prior to the difficulty, probable cause, any action taken, and recommendations. Attach copy of supporting documents. Continue on separate sheet if necessary. Ensure that the description answers the questions listed in the instructions on the back of this form.) | 4. DATE DEFICIENCY WAS DISCOVERED

5. DEFICIENT ITEM NATIONAL STOCK NUMBER (NSN) | 6. DEFICIENT ITEM NOMENCLATURE | 7. OPERATING TIME AT FAILURE ☐ Initial — Hours: Cycles: Days: Miles: Rounds: Other:

8. DEFICIENT ITEM PART NUMBER | 9a. MANUFACTURER'S CAGE CODE | 9b. MANUFACTURER / CITY / STATE

10. QUANTITY — a. RECEIVED: b. INSPECTED: c. DEFICIENT: d. IN STOCK:

11. SERIAL, LOT, OR BATCH NUMBER — SERIAL #: ☐ Unknown; LOT #:; BATCH #: ☐ N/A

12a. ITEM — ☐ New ☐ Repaired ☐ Overhauled ☐ Unknown

12b. DATE MANUFACTURED, REPAIRED, OR OVERHAULED — Manufactured: Repaired: Overhauled:

12c. LAST REPAIR FACILITY — CAGE: DODAAC: REPAIR DEPOT / CITY / STATE

13a. CONTRACT NUMBER | 13b. REQUISITION / DOCUMENT NUMBER | 13c. PURCHASE ORDER NUMBER

14. GOVERNMENT FURNISHED MATERIAL ☐ YES ☐ NO ☐ UNKNOWN | 15a. ITEM UNDER WARRANTY ☐ YES ☐ NO ☐ UNKNOWN | 15b. WARRANTY EXPIRATION DATE | 16. END ITEM BUWU/C/TAMCN

17. NEXT HIGHER ASSEMBLY — a. NSN | b. NOMENCLATURE | c. PART NUMBER | d. SERIAL NUMBER

18. END ITEM — a. NSN | b. NOMENCLATURE | c. TYPE/MODEL | d. SERIAL NUMBER

19. CURRENT DISPOSITION OF DEFICIENT ITEM (the Exhibit) (Select only one value) — ☐ HOLDING EXHIBIT ☐ DISPOSED OF / DESTROYED ☐ REPAIRED ☐ OTHER (Explain in Block 3)

20. LOCATION OF DEFICIENT MATERIAL (e.g. Base, Camp, Station)

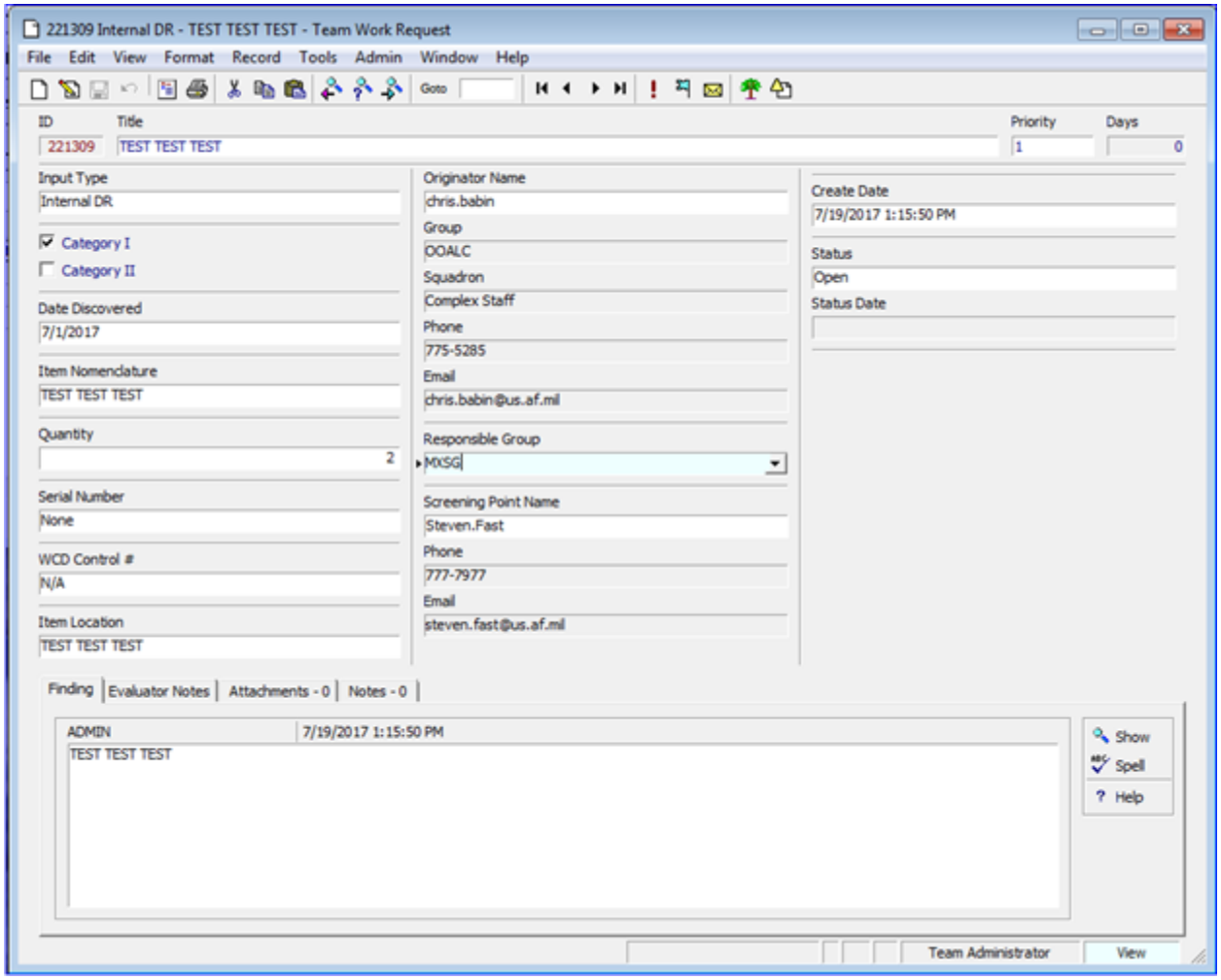
21. ACTION REQUESTED (Select only one value) ☐ REPLACEMENT ☐ REPAIR ☐ CREDIT ☐ OTHER (Explain in Block 3)

368-102 STANDARD FORM 368 (REV. 5/2011) GENERAL SERVICES ADMINISTRATION (FPMR 101 - 26.8)

Attachment 3

TEAM WORK REQUEST

Figure A3.1. Sample MX1 Non-Conforming Asset Screen.



Attachment 4

NON-CONFORMING LINE ROUTED ASSETS

Figure A4.1. Sample OO-ALC Non-Conforming Line-Routed Assets Quad Charts.

Non -Conforming Line Routed Assets

OGDEN AIR LOGISTICS COMPLEX

Shop / End item: (QAS)
Office Symbol: (Squadron/RCC)
Noun: F-15 Stabilizer Actuator
NSN: 1650-01-190-8269
RCN: FB6372-16-0054
Serial #: 1267
Date Investigation Started: 7 Nov 2016 **(QAS)**
Close Date: (QA Analyst fills in from MX1)

Reported Defect: Actuator failed rigging TO. 1f-15c-2-27jg-40-1 (27-40-08) pg. 8-8 step 13 (Stabilizer LE failed to return to 0.0-2.9 inches below reference mark with controls returned to static position) **(QAS)**

Defect Root Cause Analysis: SQDN
WHY: Actuator failed rigging per TO

WHY: Internal fluid leakage greater than allowable limits

WHY: Improperly aligned forward piston seals

WHY: Expansion ring on forward piston not engaged with forward piston seals allowing seals to rotate

WHY: Expansion ring improperly in assembled

NOTE: *RCA should continue to ask "why" until true root cause is identified*

Root Cause: Part improperly assembled - workmanship defect **SQDN**
Does Product Line Require Quality Containment? No.
Risk to Mission? No, part failed testing before final sell-off.
Cost? Re-work estimate:
$ 735.00 parts*
$ 386.00 labor* ***Notional for example**
$ 1121.00 total*
Collaboration Required? No.
Corrective Actions: Asset overhauled to serviceable condition

Countermeasures: 252 submitted to add note before installation of key rings. 9H2-5-260-3, Chapter 6-14, Section L-Note: Once keyring has been installed over key, firmly hold key ring in place installing second ring ensuring keyring does not slip out of key. After installation visually inspect key ring openings are 180 degrees apart.

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