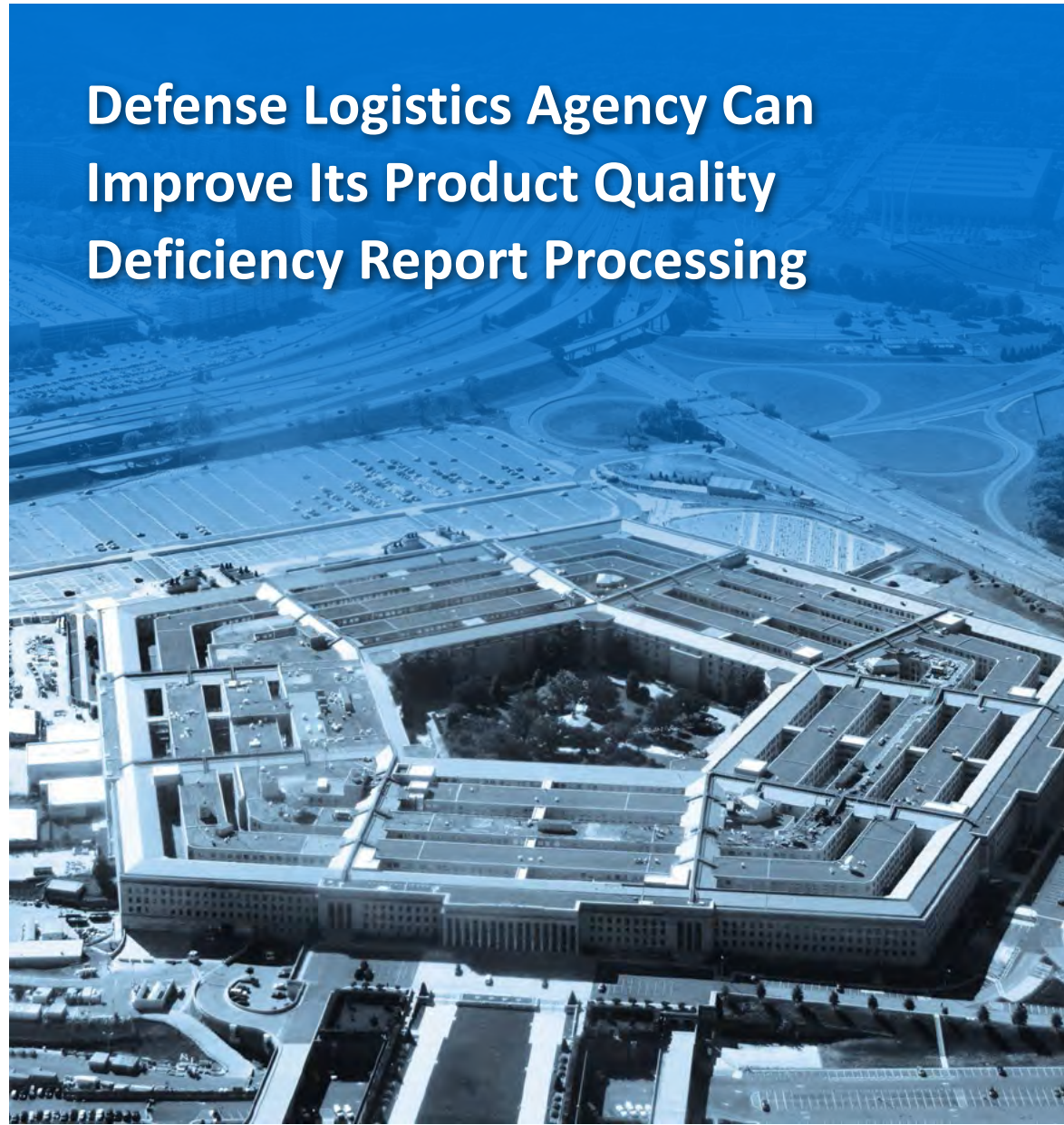




# INSPECTOR GENERAL

*U.S. Department of Defense*

JULY 1, 2015



## Defense Logistics Agency Can Improve Its Product Quality Deficiency Report Processing

INTEGRITY ★ EFFICIENCY ★ ACCOUNTABILITY ★ EXCELLENCE

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# Results in Brief

## *Defense Logistics Agency Can Improve Its Product Quality Deficiency Report Processing*

July 1, 2015

### Objective

The audit objective was to determine whether Defense Logistics Agency (DLA) personnel are adequately processing product quality deficiency reports and identifying the root cause for defective spare parts. This is the first in a series of audits on DLA processing product quality deficiency reports.

### Finding

DLA Aviation quality assurance personnel conducted adequate investigations for product quality deficiency reports. However, they did not adequately process 21 of 52 that we non-statistically sampled and properly code them to reflect the root causes of the deficiencies determined by their investigations. This occurred because:

- quality assurance personnel lacked sufficient guidance to make appropriate coding decisions and did not have a complete understanding of how their coding actions impacted contractor's quality ratings;
- supervisors failed to conduct adequate reviews of product quality deficiency report investigations; and
- the product quality deficiency report program lacked adequate oversight to improve operational effectiveness.

In addition, the cause codes assigned in deficiency reporting systems differed for 17 of the 52 sampled investigations and for a total of 1,921 of the 9,347 reports that the DLA Supply Chains closed between

### Finding (cont'd)

August 2013 and August 2014. The coding differed because of deficiencies in the processes Military Department screening points used to update information in the systems and outdated software code.

The inaccurate data limits the effectiveness of the DoD product quality deficiency report program and prevents meaningful analysis of the primary causes of spare-part quality deficiencies. In addition, the inaccurate data weakens DoD's ability to hold contractors responsible for providing defective parts because contractor evaluation systems contain incomplete data. Ultimately, this increases the risk of DoD procuring nonconforming spare parts from contractors, which impacts warfighter readiness and safety.

### Recommendations

We recommend that the Director, DLA, develop an action plan with milestones to improve product quality deficiency report processing. The plan should address the problems that this report identified and:

- update existing guidance on product quality deficiency report processing, coding decisions, and the associated supervisory reviews;
- develop procedures, controls, and associated metrics that evaluate deficiency reporting results to improve operational effectiveness; and
- require coordination with deficiency reporting system program offices on the sufficiency of planned corrective actions and establish procedures to ensure that codes are consistent between deficiency reporting systems.

### Management Comments and Our Response

Comments from the Director, DLA Logistics Operations, did not address all specifics of one of the four recommendations, and further comments are required on Recommendation 1.c(2) by August 3, 2015. Please see the Recommendations Table on the back of this page.

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## ***Recommendations Table***

| Management                         | Recommendations<br>Requiring Comment | No Additional<br>Comments Required |
|------------------------------------|--------------------------------------|------------------------------------|
| Director, Defense Logistics Agency | 1.c(2)                               | 1.a, 1.b, 1.c(1)                   |

Please provide Management Comments by August 3, 2015.



**INSPECTOR GENERAL  
DEPARTMENT OF DEFENSE  
4800 MARK CENTER DRIVE  
ALEXANDRIA, VIRGINIA 22350-1500**

July 1, 2015

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION,  
TECHNOLOGY, AND LOGISTICS  
DIRECTOR, DEFENSE LOGISTICS AGENCY

SUBJECT: Defense Logistics Agency Can Improve Its Product Quality Deficiency Report  
Processing (Report No. DODIG-2015-140)

We are providing this draft report for review and comment. This is the first in a series of audits on Defense Logistics Agency processing product quality deficiency reports. Defense Logistics Agency quality assurance personnel did not adequately process product quality deficiency reports and properly code them to reflect the root causes of the deficiencies determined by their investigations. In addition, coding discrepancies existed between deficiency reporting systems. We conducted this audit in accordance with generally accepted government auditing standards.

We considered management comments on a draft of this report when preparing the final report. DoD Instruction 7650.03 requires that recommendations be resolved promptly. Comments from the Director, Defense Logistics Agency Logistics Operations, responding for the Director, Defense Logistics Agency, for Recommendations 1.a, 1.b, and 1.c(1) conformed to the requirements of DoD Instruction 7650.03; therefore, we do not require additional comments. The Director agreed with Recommendation 1.c(2) but did not describe corrective actions to address the recommendation. Therefore, we request additional comments on Recommendation 1.c(2) by August 3, 2015 that include the actions the Defense Logistics Agency will take.

Please send a PDF file containing your comments to [audcolu@dodig.mil](mailto:audcolu@dodig.mil). Copies of your comments must have the actual signature of the authorizing official for your organization. We cannot accept the /Signed/ symbol in place of the actual signature. If you arrange to send classified comments electronically, you must send them over the SECRET Internet Protocol Router Network (SIPRNET).

We appreciate the courtesies extended to the staff. Please direct questions to me at (703) 604-9077 (DSN 664-9007).

*Jacqueline L. Wiccarver*  
Jacqueline L. Wiccarver  
Assistant Inspector General  
Acquisition, Parts, and Inventory

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## Acronyms and Abbreviations

# Introduction

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## Objective

The audit objective was to determine whether Defense Logistics Agency (DLA) personnel are adequately processing product quality deficiency reports (PQDRs) and identifying the root cause of deficiencies in spare-part quality. This is the first in a series of audits on DLA PQDR processing. This audit focused on PQDRs processed by the DLA Aviation Supply Chain. The next audit in this series will determine whether DLA Aviation is holding contractors responsible for producing deficient parts and obtaining adequate restitution. See Appendix A for additional details on our scope and methodology, use of computer processed data, and prior coverage of PQDRs.

## Background

### ***Defense Logistics Agency***

DLA, headquartered at Fort Belvoir, Virginia, provides the Army, Marine Corps, Navy, and Air Force, and combined allied forces with a full spectrum of logistics, acquisition, and technical services, including supplying more than 85 percent<sup>1</sup> of the military's spare parts.

DLA Aviation, headquartered in Richmond, Virginia, is the U.S. military's integrated materiel manager for more than 1.1 million repair parts and operating supply items in support of all fixed-and rotor-wing aircraft, including:

- spares for engines on fighters, bombers, transports and helicopters;
- all airframe and landing gear parts;
- flight safety equipment; and
- propeller systems.

In addition to DLA Aviation, DLA has several other Supply Chains that process PQDRs.

### ***Product Quality Deficiency Reporting Process***

PQDRs are the primary tool for feedback on the quality of items issued through the supply chain or field level activity. They are submitted when new or newly reworked Government-owned products are determined not to fulfill their expected purpose, operation, or service due to any or all of the following:

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<sup>1</sup> Source: [www.dla.mil](http://www.dla.mil).

- deficiencies in design;
- specification;
- materiel;
- software;
- manufacturing process; or
- workmanship.

Personnel generate a PQDR as either a category I or category II, based on the nature of the deficiency.

- **Category I**—a product quality deficiency that may:
  - cause death, injury, severe occupational illness, or major loss or damage to a weapon system;
  - critically restrict the combat-readiness capabilities of the using organization or results in a production line stoppage.
- **Category II**—a product quality deficiency that does not meet the criteria set forth in category I.

DLA Regulation 4155.24<sup>2</sup> implements DoD policy for reporting of product quality deficiency data. The Regulation establishes a system for feedback on product quality and provides guidance for the initial reporting, cause correction, and status accounting of individual product quality deficiencies. It also specifies that DoD organizations should use the data gathered from the PQDR program to identify problems, trends, and recurring deficiencies in spare-part quality. The process primarily focuses on the following four roles.

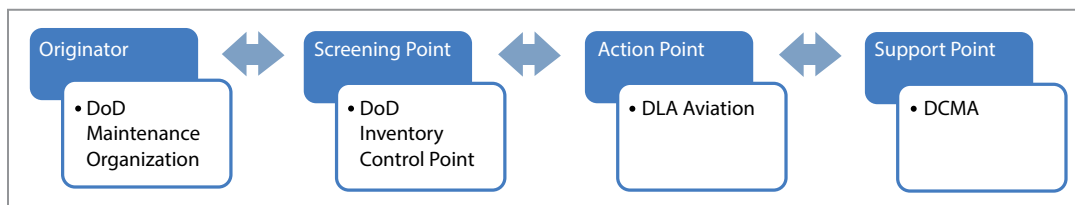
- **Originator**—a user who discovers the defective product and initiates the PQDR and, in some cases, provides the deficient part (an exhibit) for Government or contractor testing.
- **Screening Point**—a designated activity identified within each DoD organization that reviews the PQDR for validity, accuracy, and completeness of required information and identifies and transmits the PQDR to the proper action point within or outside the DoD organization.
- **Action Point**—leads and manages the PQDR investigation and, for DLA-managed items, this responsibility is assigned to a quality assurance specialist.
- **Support Point**—assists the action point in the investigation upon request. This is generally the Defense Contract Management Agency (DCMA).

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<sup>2</sup> DLA Regulation 4155.24, “Product Quality Deficiency Report Program,” July 20, 1993.

Figure 1 identifies the DoD organizations that fulfilled those roles for the PQDRs reviewed during this audit.<sup>3</sup>

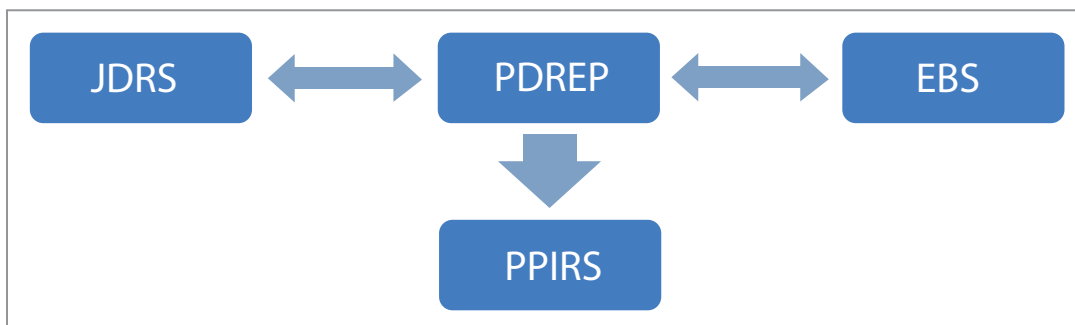
*Figure 1. Organizations Involved in Processing DLA Aviation PQDRs*



### ***DoD Computer Systems Used to Support PQDR Processing***

DoD organizations document PQDR processing and resolution results in the U.S. Navy hosted Product Data Reporting and Evaluation Program (PDREP) information system. DLA personnel process PQDRs in the DLA Enterprise Business System (EBS) and other DoD organizations use the Joint Deficiency Reporting System (JDRS) to submit PQDRs for aviation related parts. As shown in Figure 2, PDREP shares and receives information with these other DoD systems during the PQDR process. At the conclusion of the investigative process, PQDR data is transmitted to the Past Performance Information Retrieval System (PPIRS).

*Figure 2. Flow of Spare Part Quality Data Through Deficiency Reporting Systems*



During the PQDR investigation, quality assurance personnel assign codes and enter text into the various systems to identify the cause of the deficiency, the party responsible for the deficiency (contractor or government), actions taken to correct the deficiency, and the disposition of the defective product. Table 1 lists the codes available in EBS, JDRS and PDREP for categorizing the causes of spare part deficiencies.

<sup>3</sup> See Appendix B for a detailed description of the PQDR process when DLA is the Action Point.

*Table 1. Cause Codes Available in DoD Deficiency Reporting Systems*

| Code | Definition                          | System Availability (EBS, JDRS, PDREP) |
|------|-------------------------------------|----------------------------------------|
| C    | Contract Error                      | All                                    |
| D    | Technical Data Package/Design Error | All                                    |
| M    | Maintenance Error                   | JDRS & PDREP Only                      |
| N    | Contractor Noncompliance            | All                                    |
| P    | Part Application                    | JDRS & PDREP Only                      |
| S    | Shelf Life Item                     | JDRS & PDREP Only                      |
| U    | Misuse of Item                      | All                                    |
| X    | Undetermined                        | All                                    |
| Z    | Not Applicable                      | JDRS & PDREP Only                      |

DLA and other Federal Government agencies use PPIRS to track contractor past performance information (timeliness of contractor delivery and spare part quality), which is used to make future contract award decisions. PQDRs impact a contractor's PPIRS quality rating when the contractor is identified as having provided deficient parts.<sup>4</sup>

## Review of Internal Controls

DoD Instruction 5010.40, "Managers' Internal Control Program Procedures," May 30, 2013, requires DoD organizations to implement a comprehensive system of internal controls that provides reasonable assurance that programs are operating as intended and to evaluate the effectiveness of the controls. We identified internal control weaknesses where DLA Aviation quality assurance personnel did not adequately process 21 of the 52 sampled PQDR investigations and properly code them to reflect the root causes of the deficiencies determined by their investigations. In addition, the cause codes assigned in EBS and PDREP differed for 17 of the 52 sampled PQDR investigations and for a total of 1,921 of the 9,347 PQDRs DLA closed during a one year period.

We will provide a copy of the report to the DLA senior official responsible for internal controls.

<sup>4</sup> See Appendix C for details on the PPIRS quality rating process.

## Finding

### Defense Logistics Agency Aviation Did Not Adequately Process Product Quality Deficiency Reports

DLA Aviation quality assurance personnel conducted adequate investigations for 49 of the 52 we non-statistically sampled. However, personnel did not select the right code to properly identify the root causes of the deficiencies as determined by their investigations for 21 of the 52 PQDR investigations.

This occurred because:

- quality assurance personnel lacked sufficient guidance to make appropriate coding decisions and did not have a complete understanding of how their coding actions impacted contractors' quality ratings,
- supervisors did not sufficiently review quality assurance specialists' PQDR investigation results and associated coding actions, and
- DLA failed to establish a formal system to adequately monitor and improve the operational effectiveness of the PQDR program.

In addition, the cause codes assigned in EBS and PDREP differed for 17 of the 52 sampled PQDR investigations and for a total of 1,921 of the 9,347 PQDRs that DLA Supply Chains closed between August 2013 and August 2014. The systems contained different cause codes because of deficiencies in processes the Military Department screening points used to update information in the systems and the U.S. Navy's failure to remove outdated software code.

The inaccurate data limits the effectiveness of the DoD PQDR Program and prevents meaningful analysis of the primary causes of spare part quality deficiencies. In addition, the inaccurate data weakens DLA's ability to hold contractors responsible for providing non-conforming parts because contractor evaluation tools such as PPIRS contain incomplete data. Ultimately, this increases the risk of DoD procuring non-conforming spare parts from contractors, which impacts warfighter readiness and safety.

## Defense Logistics Agency Aviation Product Quality Deficiency Report Processing

DLA Aviation closed 1,102 PQDRs during the period we reviewed.<sup>5</sup> Table 2 shows that for 658 (60 percent) of those PQDRs, DLA quality assurance personnel selected a cause code that indicated that they could not determine what specifically caused the defective parts.

*Table 2. Audit Population of DLA Aviation PQDRs by Cause Code*

| Code  | Cause Code Description                     | PQDR Count   | Percent of Total |
|-------|--------------------------------------------|--------------|------------------|
| X/Z   | Undetermined/Not Applicable                | 658          | 60               |
| N     | Contractor Noncompliance                   | 232          | 21               |
| D     | Technical Data Package/Design Error        | 109          | 10               |
| C     | Contract Error                             | 47           | 4                |
| M     | Maintenance Deficiency                     | 37           | 3                |
| P/S/U | Part Application/Shelf Life/Misuse of Item | 19           | 2                |
|       | <b>Total</b>                               | <b>1,102</b> | <b>100</b>       |

We selected and tested a non-statistical sample of 52 unique PQDR investigations from the audit population of DLA Aviation PQDRs. The large number of PQDRs that lacked specific causes raised concerns about the adequacy of the PQDR investigations. Therefore, as shown in Table 3, the majority of the PQDRs we selected were from those categories.

*Table 3. Sampled DLA Aviation PQDRs by Cause Code*

| Code  | Definition                                      | Sampled PQDR Count |
|-------|-------------------------------------------------|--------------------|
| X/Z   | Undetermined/Not Applicable                     | 40                 |
| D     | Technical Data Package/Design Error             | 7                  |
| C/M/U | Contract Error/Maintenance Error/Misuse of Item | 5                  |
|       | <b>Total</b>                                    | <b>52</b>          |

Based on our testing, we determined that it was not the adequacy of the investigations that caused a large number of PQDRs to be classified as undetermined or not applicable. Instead, we determined that quality assurance personnel did not select the right code to properly identify the root causes of the deficiencies as determined by their investigations.

<sup>5</sup> This period of review was August 2013 through February 2014 (See Appendix A for details).

### ***Quality Assurance Personnel Performed Adequate Investigations***

DLA Aviation quality assurance personnel conducted adequate investigations for 49 of the 52 PQDR investigations we reviewed. To determine this, we reviewed the steps to investigate the deficiencies and interviewed the responsible DLA Aviation quality assurance personnel to ensure that they performed sufficient work in the course of their investigations to either determine a root cause or to justify that one could not be determined.

An adequate PQDR investigation includes identifying whether parts reported are defective and why. The investigation generally involves DLA quality assurance personnel coordinating with the originator to have a deficient part sent to the contractor or government lab for testing. DCMA quality assurance personnel may also assist in the investigation if they are involved with administering the contract for the spare parts. Additional steps in the investigation:

- determine if the customer will receive credit for the defective part;
- input findings and recommendations of investigation codes into EBS;
- prepare a closing report; and
- provide disposition instructions for the deficient parts.

### ***Quality Assurance Personnel Did Not Assign Accurate Cause Codes and Codes Differed Between Deficiency Reporting Systems***

DLA Aviation quality assurance personnel did not consistently choose the appropriate codes to identify the root cause of the deficiencies determined by their investigations. Specifically, DLA Aviation quality assurance specialists assigned inaccurate cause codes for 21 of the 52 investigations we reviewed. We observed that DLA Aviation quality assurance personnel were especially likely to inaccurately record a code to reflect that the cause was undetermined when their investigations determined that a contractor was at fault for the deficiency. For these PQDRs, the quality assurance specialists should have assigned a cause code to reflect contractor noncompliance. This situation occurred in 11 of the 21 coding errors.

We also found that the cause codes DLA Aviation quality assurance personnel assigned in EBS were not always accurately reflected in PDREP. Specifically, the cause codes assigned for 17 of the 52 investigations we reviewed did not match between the two systems. We compared the appropriateness of the codes for these sample investigations and determined that generally the EBS codes more appropriately reflected the actual cause determined in the investigation rather

than the PDREP codes. We further examined coding data and determined that cause codes assigned in EBS and PDREP differed for 1,921 of the 9,347 PQDRs (21 percent) that DLA Supply Chains closed between August 2013 and August 2014.

## **Policy and Controls Over Product Quality Deficiency Report Processing Needs Improvement**

DLA policy did not include sufficient guidance to enable quality assurance personnel to make appropriate coding decisions or provide them with sufficient information on how their coding decisions impacted a contractor's quality rating. In addition, supervisors did not sufficiently review quality assurance specialists' PQDR investigation results and associated coding actions. DLA also failed to establish a formal system to adequately monitor and improve the operational effectiveness of the PQDR program.

### ***DLA Guidance Did Not Adequately Define Codes That Identified the Cause of Spare-Part Deficiencies***

DLA guidance did not adequately define the most appropriate codes DLA Aviation quality assurance specialists should use to categorize the causes of defective spare parts. Upon completing their investigation, DLA quality assurance specialists' must assign one of five available cause codes as part of the process to close the PQDR in EBS.<sup>6</sup> Although EBS maintained a drop down list of available cause codes, it did not maintain detailed definitions or provide business scenarios and examples to clearly demonstrate which codes DLA personnel should assign to accurately identify the root cause of defective parts. Instead, code definitions were listed in DLA Regulation 4155.24. The Regulation briefly defines the five broad cause codes identified in EBS as well as four additional cause codes available in PDREP. However, the Regulation does not provide specific examples or sufficiently explain the circumstances when specific codes should be selected.

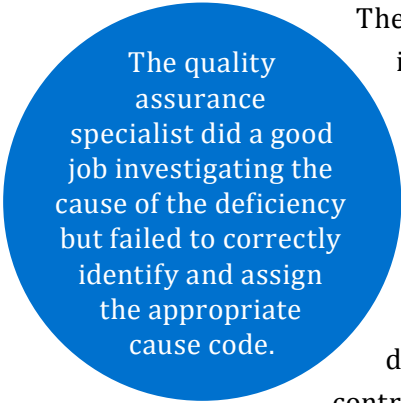
The deficiencies with the guidance contributed to coding errors. For example, we reviewed a Navy PQDR for a deficient seal that DLA sold for \$4,648 each. The DLA Aviation quality assurance specialist who performed the investigation erroneously selected Cause Code C (contract error) in EBS when closing the quality report because he mistakenly thought it reflected contractor error, meaning the deficiency was the contractor's fault. However, Cause Code C actually represents an error that government personnel made in the writing of the contract, such as including the wrong part number or wrong specifications in the contract. In this case, Cause Code N (contractor noncompliance), which represents an error a

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<sup>6</sup> See Table 1 on page 4 of this report for a complete list of the codes and their associated definitions.

contractor made when manufacturing the part, would have been right code to accurately summarize the conclusions of this investigation. DLA Aviation quality assurance personnel acknowledged that it is common for personnel to mistakenly assign the contract error cause code instead of the contractor noncompliance cause code in these situations.

In another example, we reviewed a Navy PQDR for a defective aircraft lever that DLA sold for \$1,541 each. The part is a critical safety item and renders the aircraft not fully mission capable until suitable replacement parts are provided. The DLA Aviation quality assurance specialist that conducted the investigation for this PQDR selected Cause Code D (technical data package/design error). Cause Code D is appropriate when the contractor produced the part accurately to the technical drawings, but the Government cited the wrong drawings in the contract or the drawings were in error. However, in this case, the quality assurance specialist's investigation determined that during the machining of the lever, the contractor's production machine malfunctioned resulting in the deficiency.



The quality assurance specialist did a good job investigating the cause of the deficiency but failed to correctly identify and assign the appropriate cause code.

The quality assurance specialist did a good job investigating the cause of the deficiency but failed to correctly identify and assign the appropriate cause code to reflect that contractor noncompliance had caused the defect. When we brought this to the quality assurance specialist's attention, he stated that the manufacturer had produced this item for several years without any problems and that he did not see the failure of the contractor's machine as contractor noncompliance.

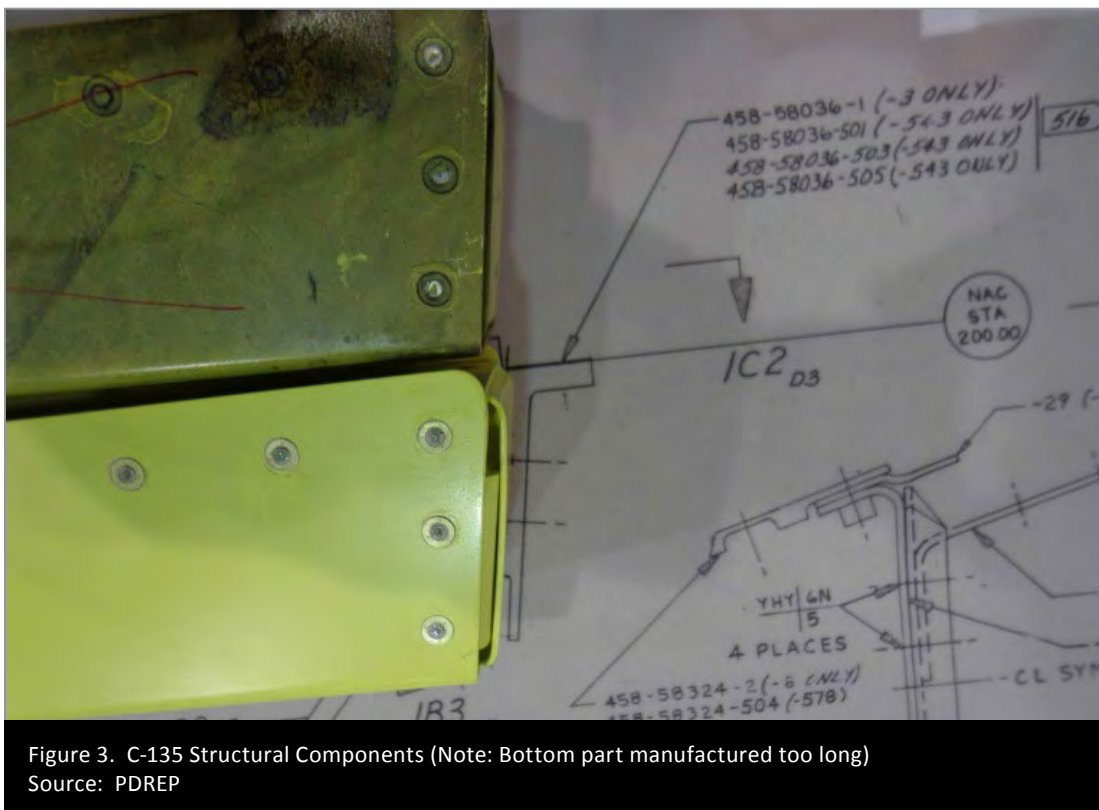
DLA should update its policy to allow for quality assurance personnel to easily obtain code definitions and business scenarios to identify and assign appropriate codes when processing PQDRs.

### ***Quality Assurance Specialists Did Not Fully Understand How Their Coding Decisions Impacted Contractor Quality Ratings***

DLA Aviation quality assurance specialists also miscoded the causes for deficient parts because they did not have a complete and accurate understanding of how their coding decisions impacted a contractor's quality rating. Several quality assurance specialists we interviewed stated they did not assign Cause Code N to identify contractor noncompliance because they did not want to adversely impact the contractor's quality rating based on the circumstances.

This occurred for a variety of reasons that are discussed in the following paragraphs and DLA Regulation 4155.24 lacked specific guidance to inform DLA quality assurance specialists on how to handle those scenarios. In addition, information we obtained from a PPIRS official on how PPIRS calculates contractor's quality ratings revealed that DLA Aviation quality assurance specialists did not have a complete and accurate understanding of how their coding decisions impacted a contractor's quality rating.

For example, we reviewed a DLA Aviation quality assurance specialist's investigation of an Air Force PQDR for deficient C-135 aircraft structural components, shown in Figure 3, which DLA sold for \$2,919 each.



The deficient parts caused a work stoppage at an Air Force maintenance facility. DCMA personnel supported the investigation and concluded that the contractor did not make the parts according to the applicable technical drawing. However, the quality assurance specialist input a code to reflect that the cause was undetermined because the contractor agreed to repair/replace the parts and the quality assurance specialist did not want to adversely impact the contractor's quality rating.

To understand how the PQDR coding impacted contractor's quality ratings, we contacted a PPIRS official responsible for quality assurance. The PPIRS official informed us that the cause code does not directly impact a contractor's quality rating. Instead, PPIRS uses another code that the quality assurance specialist assigns during PQDR close-out, the defect responsibility code, to calculate a contractor's quality rating when the code reflects contractor responsibility. The defect responsibility code identified the organization responsible for causing the defective parts.<sup>7</sup> In addition, the PPIRS official informed us that PPIRS also used the total number of PQDRs compared to the total number of delivery records to calculate the contractor's quality rating.

Table 4 lists the defect responsibility codes and whether or not PPIRS used them to calculate contractor quality ratings.

*Table 4. PQDR Defect Responsibility Codes and PPIRS Usage*

| Code | Definition                | Used In PPIRs Quality Rating Calculation |
|------|---------------------------|------------------------------------------|
| A    | Contractor                | Yes                                      |
| B    | Procurement Agency        | No                                       |
| C    | Organic Manufacturing     | No                                       |
| H    | Undetermined              | No                                       |
| I    | Invalid Report            | No                                       |
| U    | Government Using Activity | No                                       |

Although the quality assurance specialist assigned an undetermined cause code that would not impact the contractor's quality rating, his assignment of the defect responsibility code of "A" (private contractor) actually allowed for the PQDR to meet the PPIRS criteria and was used to calculate the contractor's quality rating.

<sup>7</sup> See Appendix C for details on the PPIRS rating process.

In another instance, we reviewed a DLA Aviation quality assurance specialist's investigation of an Air Force PQDR for deficient C-5A Flap Assemblies, shown in Figure 4, which DLA sold for \$33,083 each.



Figure 4. C-5A Flap Assembly  
Source: PDREP

In this case, a contractor subcontracted the manufacturing to another contractor. However, the subcontractor milled the fastener edge distance to 5/16 of an inch when the contract specifications required them to be 11/16 of an inch. As a result, the fasteners were too short and if installed, could cause the aircraft to operate unsafely.

Although Cause Code N was the appropriate code to assign

for these circumstances, the quality assurance specialist input a code to reflect that he could not determine the cause of the defect because he was hesitant and believed it inappropriate to blame the contractor for its subcontractor's defective parts. In addition, the quality assurance specialist assigned a defect responsibility code of "H" (unknown). Therefore, by not appropriately coding the PQDR and assigning responsibility to the contractor, the quality assurance specialist did not allow for the PQDR to meet the PPIRS criteria for calculating the contractor's quality rating.

In another example, we reviewed a DLA Aviation quality assurance specialist's investigation of an Air Force PQDR for deficient F-4 aircraft parachute canopy assemblies, shown in Figure 5, which DLA sold for \$896 each.

In this case, the quality assurance specialist chose not to assign a cause code to reflect contractor noncompliance even though his investigation revealed that the contractor produced deficient material. The quality assurance

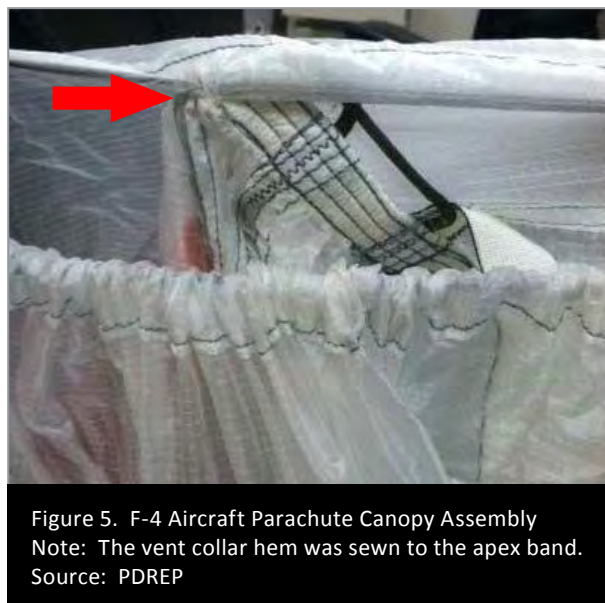


Figure 5. F-4 Aircraft Parachute Canopy Assembly  
Note: The vent collar hem was sewn to the apex band.  
Source: PDREP

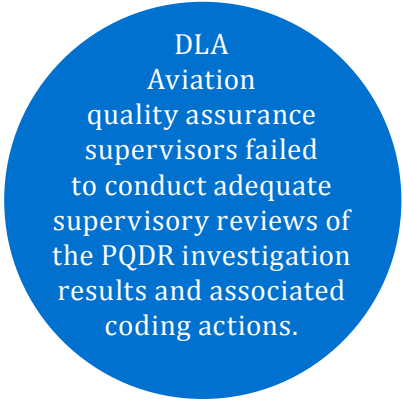
specialist stated that the contractor's quality rating had already been negatively impacted because quality deficiencies were already identified with other canopy assemblies obtained under the same contract. Therefore, he did not think it was appropriate to impact the score with additional deficiencies.

Overall, it is important that DLA quality assurance specialists appropriately code PQDRs to identify contractor noncompliance when they either produce defective parts or fail to ensure the quality of parts received from subcontractors. Appropriate codes provide an incentive to contractors to ensure they provide high-quality parts and alert DoD of contractors who cannot meet the standard.

DLA should update its PQDR guidance to ensure that quality assurance specialists assign codes to reflect contractor noncompliance and responsibility when warranted and specify in PQDR guidance how the quality assurance specialists' coding decisions impact contractors' quality ratings in PPIRS.

### ***Quality Assurance Personnel Did Not Conduct Adequate Supervisory Reviews***

DLA Aviation quality assurance supervisors failed to conduct adequate supervisory reviews of the PQDR investigation results and associated coding actions. DLA policy requires a supervisory review of the PQDR closing letter, which contains the cause for the reported deficiency. The responsible quality assurance specialist must assign a cause code before closing a PQDR. If the root cause is undetermined then the quality assurance specialist must justify why the specific cause could not be determined. The quality assurance specialist should complete several steps to determine the root cause of the deficiency. These steps include a review of the contractual information, technical and quality history files, and DCMA report. An adequate supervisory review should ensure that the responsible quality assurance specialist performs these steps before completing the PQDR investigation and closing letter.



DLA Aviation quality assurance supervisors failed to conduct adequate supervisory reviews of the PQDR investigation results and associated coding actions.

DLA Aviation personnel did not consistently conduct adequate supervisory reviews of the quality assurance specialist's investigations. We found that quality assurance specialists did not adequately investigate 3 of the 52 PQDR investigations we reviewed. In addition, our review found that DLA Aviation quality assurance personnel did not choose the appropriate codes to identify the root cause of the deficiencies determined by 21 of the 52 PQDR investigations. We believe that many of those deficiencies would have been identified had supervisors performed adequate reviews.

To illustrate, we reviewed a DLA Aviation quality assurance specialist's investigation of an Air Force PQDR for a B-52H aircraft fairing, shown in Figure 6, which DLA sold for \$5,454 each.



We reviewed the PQDR along with photos of the deficient part that the Air Force included with it. We identified in the photos that the contractor identification code inscribed on the deficient part did not match the contractor identification code the originator cited in the PQDR. When processing the report, quality assurance personnel did not adequately review the photos and the details of the complaint and did not identify the discrepancy with the contractor identification code. As a result, the quality assurance specialist sent the defective part to the wrong contractor who rightly claimed that it did not manufacture the part. The quality assurance specialist considered the deficient part to be an isolated incident, coded the cause of the deficiency as undetermined, and closed the PQDR investigation. In addition, the DLA Aviation supervisor who reviewed and approved this PQDR investigation did not identify the discrepancy before authorizing its closure.

As another example, we reviewed a DLA Aviation quality assurance specialist's investigation of a Navy PQDR for a defective AV-8 aircraft duct support, as shown in Figure 7, which DLA sold for \$8,401 each.



PDREP identified the PQDR as closed and included as an attachment the quality assurance specialist's closing letter concluding that the incident was an isolated case and that the responsible contractor was out of business. Although the quality assurance specialist ended the PQDR investigation it was never formally closed in EBS.

We found that the quality assurance specialist

misinterpreted a number inscribed on a photo of the part as a contractor identification number for another contractor that was out of business and ended the investigation. We also found that the PQDR originator shipped the deficient part to the correct contractor who was still in business. As a result of our inquiries, the quality assurance specialist reopened the investigation in PDREP. Overall, the PQDR was originated in February 2013 and was still open in EBS over 17 months after its original submission.<sup>8</sup>

Based on these situations and the facts surrounding the other examples discussed throughout this report, DLA Aviation could improve the adequacy of its quality assurance supervisory reviews.

DLA should improve the adequacy of its supervisory reviews and include specific procedures necessary when it reviews PQDR investigation results and associated coding.

### ***Operational Effectiveness of the Product Quality Deficiency Report Program Not Adequately Monitored***

DLA personnel did not adequately analyze the PQDR data to identify systemic problems, trends, and causes for recurring deficiencies in spare part quality to improve the effectiveness of the program. DLA headquarters officials stated that

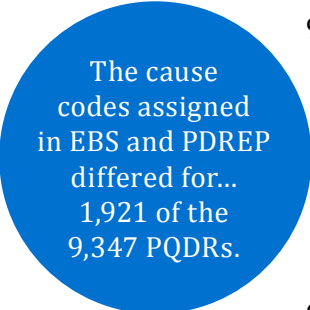
<sup>8</sup> DLA policy does not specify a time limit to close PQDR investigations but our analysis of the sampled PQDRs found that the average time from the originator's submission until the closure of the investigation in PDREP was 272 days, slightly over 9 months.

some of the DLA Supply Chains track PQDR processing. However, DLA officials stated that efforts were primarily focused to reduce the number of PQDRs with causes that could not be determined and increase the identification of root causes for quality deficiencies. DLA headquarters officials stated that there was no guidance or established metrics to measure the overall effectiveness of the PQDR program.

Upon resolving the coding problems identified in this report, DLA should develop procedures, controls, and appropriate metrics to identify problems, trends, and recurring deficiencies in spare part quality to improve the operational effectiveness of the PQDR program and provide training to ensure that the problems this report identified do not reoccur.

## Process Weaknesses and Software Glitch Caused Coding Differences Between Key Information Systems

The cause codes assigned in EBS and PDREP differed for 17 of the 52 PQDR investigations we reviewed and for a total of 1,921 of the 9,347 PQDRs that DLA Supply Chains closed between August 2013 and August 2014. The codes differed between the two systems because of weaknesses in the deficiency report closing process and because the PDREP software was erroneously converting certain cause codes.



The cause codes assigned in EBS and PDREP differed for... 1,921 of the 9,347 PQDRs.

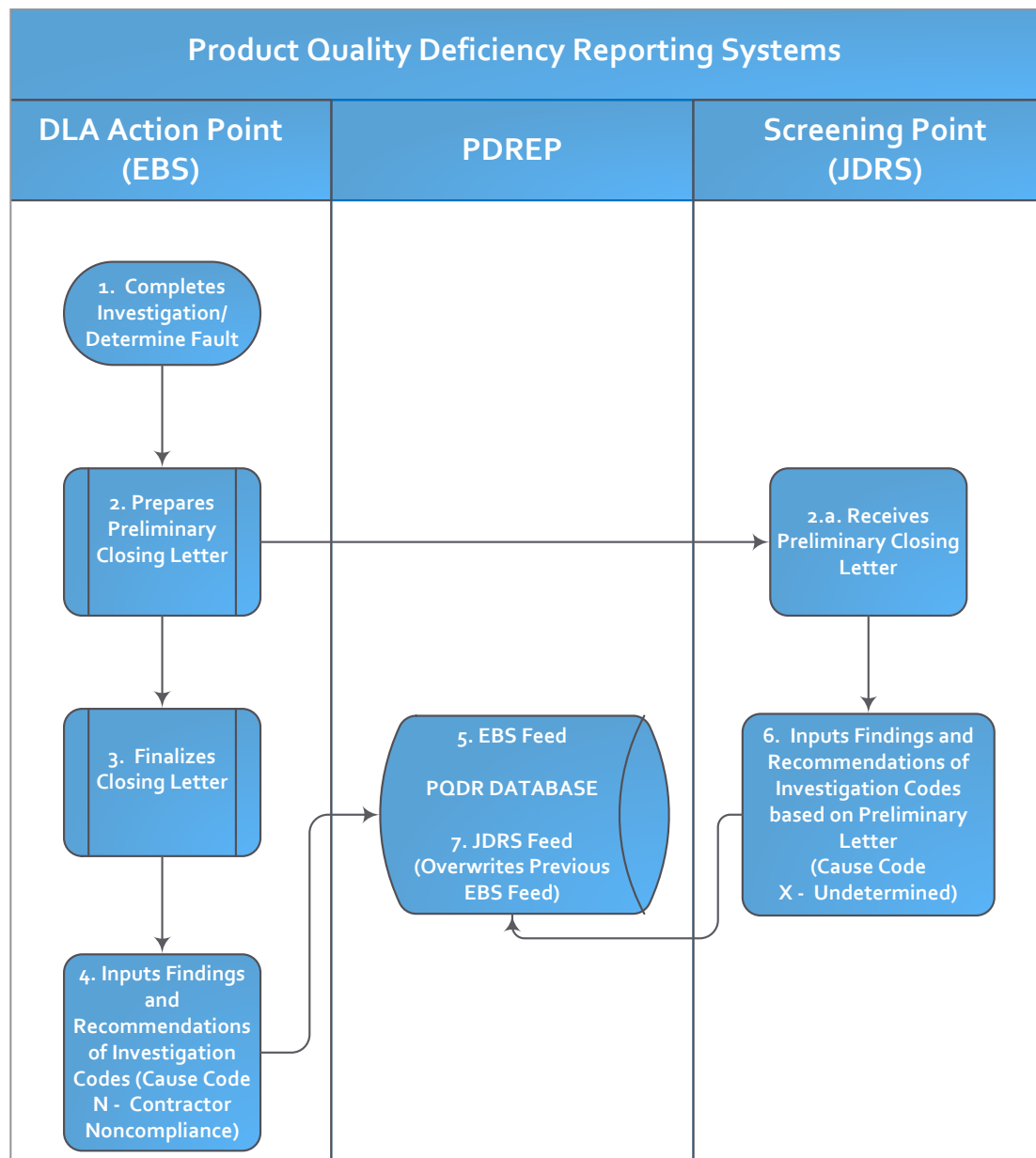
As a final step in the PQDR process after the action point completes its investigation, the screening point closes the PQDR. To accomplish this, screening point personnel in organizations who use JDRS must also assign codes in their system despite a DLA quality assurance specialist having already done so in EBS and the codes already being transferred to PDREP. However, the revised codes that screening point personnel input into JDRS do not transmit back to EBS. Instead, PDREP substitutes the codes screening point personnel assign in JDRS for the codes that the DLA quality assurance specialists previously assigned through EBS.

Screening point personnel stated that they did not see the DLA action point's codes but instead used a preliminary closing letter, which DLA sent to them as a courtesy, as a basis to select the codes within JDRS. The information in the preliminary closing letters sometimes changed based on new information becoming available and also often did not clearly indicate DLA's coding choices. Therefore, the screening point should not use the preliminary closing letter to assign codes and

close out PQDRs in JDRS. Instead, the screening point should use the final closing letter and associated codes the action point assigned based on their complete investigation results. When this does not occur, coding discrepancies exist between EBS and PDREP.

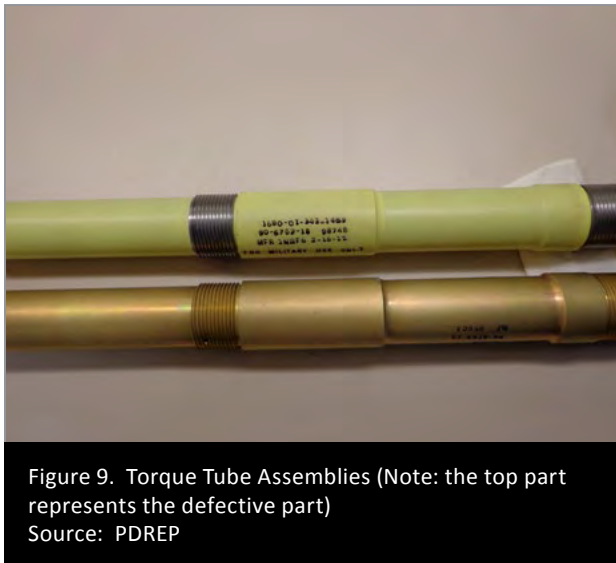
Figure 8 illustrates the process and how PQDR data generally flowed between the information systems used to process PQDRs where DLA Aviation was the action point.

*Figure 8. Process Flow of PQDR Coding Data Between Systems*



Note: The process starts from the time the action point completes its investigation until the screening point formally closes the PQDR in JDRS and updates PDREP.

Our review of a DLA Aviation quality assurance specialist's investigation of an Air Force PQDR for deficient E-3 aircraft torque tubes, shown in Figure 9, which DLA sold for \$923 each, illustrates the deficiencies with this process.



The PQDR cited an urgent work stoppage and requested DLA screen all existing stock for additional deficient parts. Deficiencies included incorrect threads, missing cotter-pin holes, primer coating instead of cadmium plating, and a lack of primer inside of the tubes. A DCMA investigation confirmed that the contractor incorrectly manufactured the parts and the quality assurance specialist appropriately assigned

the cause code to reflect contractor noncompliance in EBS. However, when closing the PQDR, Air Force screening point personnel subsequently assigned Cause Code "U" (undetermined) in JDRS because they formed their conclusions from a preliminary DLA closing letter that excluded key investigation results. Consequently, when the data transferred to PDREP it replaced the correct DLA-assigned code.

In addition, the quality assurance specialist appropriately assigned a defect responsibility code of "A" (contractor) in EBS to reflect contractor responsibility for the defective parts, which would have allowed for PPIRS to include the PQDR in determining the contractor's quality rating. However, the screening point changed the defect responsibility code to "I" (invalid) and caused the deficient parts to not meet the PPIRS criteria for calculating the contractor's quality rating. Based on our inquiries, the quality assurance specialist provided the Air Force screening point with an updated closing letter that included the correct information and clearly identified contractor noncompliance as the root cause for this deficiency. Air Force screening point personnel subsequently initiated actions to correct the coding.

Air Force officials acknowledged that its screening points inappropriately used preliminary closing letters to close out PQDRs. They explained that they sent an email message in May 2014 to their screening points to remind them to not close out PQDRs based on

Air Force officials acknowledged that its screening points inappropriately used preliminary closing letters to close out PQDRs.

emails, telephone calls, or letters. The message specified that action points should wait for the incoming application process interface transaction with the final closing information before closing the PQDR record in JDRS.

In addition, DLA and PDREP personnel stated that they planned to issue restrictions on how systems communicate and what data fields could be changed. These actions should limit the ability of JDRS screening points to change DLA's previously established findings and recommendations of investigation codes. The DLA and PDREP officials stated that estimated changes would be written in the summer of 2015 and implementation is estimated to occur between December 2015 and February 2016.

We also identified that the PDREP software was erroneously converting the contract error Cause Code "C" to the maintenance error Cause Code "M" during the transfer process from EBS to PDREP. This impacted 859 of the 9,347 PQDRs that DLA Supply Chains closed between August 2013 and August 2014. PDREP personnel stated that the glitch was caused by old programming code which was an unintentional remnant of the interaction between formerly-used systems where a Cause Code C legitimately needed to be changed to a Cause Code M. They further explained that the code conversion process was not properly removed when the older systems were phased out, which led to the existing problems. When we brought this problem to the attention of PDREP system personnel they immediately initiated corrective actions to fix the software and to correct PQDRs with erroneous codes.

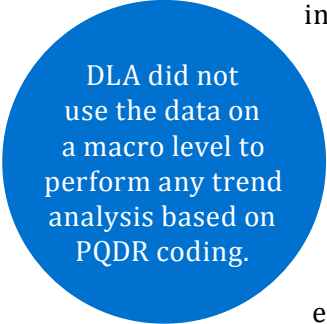
DLA should coordinate with the PDREP Program Office and other relevant organizations to ensure that the planned corrective actions are implemented and also to develop periodic review procedures to ensure that the codes assigned in EBS are consistent with the codes reflected in PDREP for the same PQDRs.

## **Impact of Inadequate Product Quality Deficiency Report Processing**

Inadequate PQDR processing leads to inaccurate PQDR data, which limits the effectiveness of the DoD PQDR program and prevents meaningful analysis of the primary causes of spare part quality deficiencies. Specifically, DLA missed opportunities to identify problems, trends, and recurring deficiencies in spare-part quality and to improve operational effectiveness. In addition, the inaccurate data weakened DLA's ability to hold poor performing contractors who provided defective parts accountable because contractor evaluation tools such as PPIRS contained incomplete data. Ultimately, this increases the risk of DoD procuring defective spare parts from contractors, which impacts warfighter readiness and safety.

## ***Missed Opportunities to Improve Operational Effectiveness***

DLA Regulation 4155.24 establishes a system for feedback of product quality deficiency data and provides for the initial reporting, cause correction, and status accounting of individual product quality deficiencies. The Regulation also specifies that DoD components should use the data gathered from the PQDR program to identify problems, trends, and recurring deficiencies in spare part quality. In addition, DoD Instruction 4140.01<sup>9</sup> requires DoD components to identify, monitor, assess, and mitigate (minimize and reduce) potential disruptions within the DoD supply chain, and requires additional life-cycle management controls to be developed, applied, and maintained to guard against counterfeit material in the DoD supply chain.



DLA did not use the data on a macro level to perform any trend analysis based on PQDR coding.

DLA had a wealth of product quality data readily available in PDREP that, if accurate, could be used to fulfill DoD requirements and improve operational effectiveness. Specifically, DLA had data available that identified problems in the spare-part manufacturing process, and identifies trends and recurring deficiencies in spare-part quality. DLA did not use the data on a macro level to perform any trend analysis based on PQDR coding. For example, PQDR data, if accurate, could be used to identify trends during overall root-cause analysis.

Table 2 on page 6 of this report shows our audit population of DLA Aviation PQDRs by cause code. We queried this data directly from PDREP and sorted it to identify the PQDRs by cause code. The data show that 14-percent of the PQDRs contain cause codes to reflect a technical data package error or a contract error. This means that DLA may have had a systemic problem with its contracts and associated technical data packages. If this data were reliable, DLA could further investigate this trend and potentially identify corrective actions.

## ***Contractor Evaluation Tools Contain Incomplete Data***

Inaccurate PQDR data also weakens DLA's ability to hold poor performing contractors responsible for providing non-conforming parts because contractor evaluation tools such as PPIRS contain inaccurate or incomplete data. PPIRS is a web-based, enterprise application that provides timely and pertinent contractor past performance information to the DoD and Federal acquisition community for use in making source selection decisions. PPIRS assists acquisition officials by serving as the single source for contractor past performance data. Contractors are

<sup>9</sup> DoD Instruction 4140.01, "Supply Chain Management Policy," December 14, 2011.

ranked against one another to separate the contractors with higher quality from those with quality problems.<sup>10</sup> If PPIRS contains inaccurate or incomplete quality data, poor performing contractors can have a higher quality ranking than they deserve, thus, increasing the likelihood of being awarded future contracts even though they previously provided defective parts.



If PPIRS contains inaccurate or incomplete quality data, poor performing contractors can have a higher quality ranking than they deserve.

### ***Inadequate Product Quality Deficiency Report Processing Could Negatively Impact the Warfighter***

Ultimately, inadequate PQDR processing increases the risk that DoD will procure nonconforming spare parts from poor performing contractors that can result in work stoppages at maintenance facilities, which impacts warfighter readiness and safety. For example, the complaint related to the torque tube PQDR discussed earlier in this report stated multiple defects including plating and priming deficiencies, incorrect machining of thread pitches, and missing cotter-pin holes. The deficiencies were so severe for this item that they caused a work stoppage on the maintenance line for the door the torque tube assembly was used to repair.

Overall, PQDR investigations can take a considerable amount of time to complete, which can negatively impact warfighter readiness. We analyzed the timeliness of our sampled PQDRs and found that the average time from the originator's submission until the investigation's closure in PDREP was 272 days, slightly over 9 months.

In addition, defects in critical safety items impact warfighter safety. For example, the complaint related to the parachute canopy PQDR discussed earlier in this report stated that two parts of the parachute were incorrectly sown together which could have resulted in a complete blowout of the canopy apex during deployment. The complaint further stated that it could increase the parachutists' decent rate, thus resulting in severe injury or loss of life.

## **Conclusion**

DLA missed opportunities to increase the operational effectiveness of the DoD PQDR program and decrease the risk of DoD procuring non-conforming spare parts from poor performing contractors. However, if DLA addresses the problems we identified it can reduce the negative impact on warfighter readiness and safety. DLA has a wealth of PQDR data readily available in PDREP that, once improved,

<sup>10</sup> See Appendix C for details on PPIRS quality ratings.

could assist in addressing these problems. DLA needs to analyze the spare-part quality deficiencies and use the analysis to minimize and reduce disruptions within the DoD supply chain. In addition, DLA will be in a better position to hold poor performing contractors responsible through restitution or declining their future award potential when contractors provide nonconforming parts because contractor evaluation tools will contain more accurate data. Although this audit focused primarily on DLA Aviation, our recommendations are directed at DLA Headquarters to improve DLA-wide policy and controls. DLA should ensure that the revised policy and controls are implemented at all DLA Supply Chains that process PQDRS.

## **Management Comments on the Finding and Our Response**

Although not required to comment, the Director, Defense Logistics Agency Logistics Operations provided the following comments on the finding. For the full text of the Director's comments, see the Management Comments section of the report.

### *Defense Logistics Agency Comments on Adequacy of Quality Assurance Guidance*

The Director, Defense Logistics Agency Logistics Operations, agreed, stating that none of the current product quality deficiency report guidance sufficiently expands the cause code definitions and provide examples of when to use them. The Director also stated that they provided training on applying the proper cause codes. In addition, procurement personnel briefed technical quality personnel on the Past Performance Information Retrieval System and the importance of properly assigning cause codes where the contractor has been identified through the investigation as the responsible party.

### *Defense Logistics Agency Comments on Adequacy of Supervisory Reviews*

The Director, Defense Logistics Agency Logistics Operations, agreed, stating that in many cases supervisors focused on reviewing the content of the product quality deficiency report closing letter rather than the specific cause code assignments in the Enterprise Business System. The Director also stated that they will train supervisors how to properly review product quality deficiency reports to ensure the assigned codes in the Enterprise Business System correspond to the findings and conclusions in the product quality deficiency report closing letter.

### *Defense Logistics Agency Comments on Adequacy of Program Oversight*

The Director, Defense Logistics Agency Logistics Operations, partially agreed, stating that Defense Logistics Agency Aviation emphasizes product quality deficiency report reduction and provides continuous training to the technical quality community. The Director agreed that they can certainly improve the overall operational effectiveness of the program by identifying problems, trends, and recurring deficiencies. The Director also stated that they have begun to sample product quality deficiency report data to monitor increases in undetermined root causes as well as identify instances of recurring deficiencies. In addition, they will establish a suite of standardized metrics to be collected and analyzed throughout the Defense Logistics Agency Enterprise in eWorkplace.

### *Our Response*

We acknowledge the Director's comments on the findings and appreciate the actions to improve Defense Logistics Agency product quality deficiency report processing. Although the Director partially agreed to our finding on the adequacy of program oversight, his proposed corrective actions sufficiently address the finding and associated recommendation.

## **Recommendations, Management Comments, and Our Response**

### ***Recommendation 1***

**We recommend that the Director, Defense Logistics Agency develop a plan of action with milestones to improve product quality deficiency report processing and ensure that the corrective actions are implemented at all Defense Logistics Agency Supply Chains that process product quality deficiency reports. The plan should address the problems that this report identified and:**

- a. Update existing guidance for quality assurance specialists to:**
  - (1) clarify the product quality deficiency cause code definitions and providing specific examples of situations that warrant the use of each specific code;**
  - (2) specify how the coding decisions impact contractors' quality ratings in the Past Performance Information Retrieval System; and**
  - (3) address the sufficiency of supervisory reviews and include specific procedures necessary when reviewing the results of a product quality deficiency report investigation.**

### *Defense Logistics Agency Comments*

The Director, Defense Logistics Agency Logistics Operations, responding for the Director, Defense Logistics Agency, agreed, stating that Defense Logistics Agency management will work with the Supply Chains to develop and implement corrective actions by December 18, 2015. Specifically, these actions will address all concerns in the Technical Quality Procedures Deskbook, the Product Quality Job Aid, and the Product Quality Supervisory Review Job Aid.

### *Our Response*

Comments from Director addressed all specifics of the recommendation, and no further comments are required.

- b. Establish the integrity of the product quality deficiency reporting coding then develop procedures, controls and appropriate metrics to identify problems, trends, and recurring deficiencies in spare part quality and to improve the operational effectiveness of the program and provide training to ensure that the problems this report identified do not reoccur.**

### *Defense Logistics Agency Comments*

The Director, Defense Logistics Agency Logistics Operations, responding for the Director, Defense Logistics Agency, agreed, stating that they will pursue a standardized suite of product quality deficiency report metrics for the Defense Logistics Agency eWorkplace and will update the product quality deficiency report course to ensure that the concerns in this report are addressed. The targeted completion date is December 2015.

### *Our Response*

Comments from Director addressed all specifics of the recommendation, and no further comments are required.

**c. Require coordination with the U.S. Navy Product Data Reporting and Evaluation Program Office and other relevant organizations to:**

- (1) ensure planned corrective actions are implemented for improved communication between the Enterprise Business System, Product Data Reporting and Evaluation Program and Joint Deficiency Reporting System and will sufficiently maintain the integrity of Defense Logistics Agency product quality deficiency report investigation results and associated coding.**
- (2) develop periodic review procedures to ensure that the integrity of Defense Logistics Agency product quality deficiency report investigations and associated coding in the Enterprise Business System is maintained in the Product Data Reporting and Evaluation Program.**

*Defense Logistics Agency Comments*

The Director, Defense Logistics Agency Logistics Operations, responding for the Director, Defense Logistics Agency, agreed, stating that they will continue to work with the DoD Joint Product Quality Deficiency Report Committee and functional experts to implement and update supporting systems in accordance with the Defense Logistics Manual 4000.25, 842P Implementation Plan.<sup>11</sup> The target date for system updates is February 2017.

*Our Response*

Comments from the Director addressed all specifics of Recommendation 1.c(1), and no further comments are required. Comments from the Director did not address all specifics of Recommendation 1.c(2), and further comments are required to describe how the periodic review procedures will be developed.

<sup>11</sup> Defense Logistics Management System Supplement 842P, PQDR Data Exchange, replaces the system unique transactions currently used to exchange data. This enhancement provides the DoD Components with a standard electronic transmission method for reporting PQDRs across systems.

## Appendix A

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### Scope and Methodology

We conducted this performance audit from August 2014 through April 2015 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

We reviewed the following applicable guidance.

- DLA Regulation 4155.24 / Army Regulation 702-7 / Secretary of the Navy Instruction 4855.5A / Air Force Regulation 74-6, "Product Quality Deficiency Report Program," July 20, 1993
- DLA Deskbook Appendix B35, "Quality Notifications, Product Quality Deficiency Reports (PQDR)," October 30, 2013
- Enterprise Business Systems Technical and Quality Job Aid, Product Quality Deficiency Report (PQDR) Quality Notifications (QNs), dated February 19, 2014

We contacted personnel from:

- DLA Headquarters;
- DLA Aviation;
- DLA Land and Maritime;
- Naval Sea Systems Command;
- Naval Air Systems Command; and
- Air Force Materiel Command.

We conducted a site visit to DLA Aviation, located in Richmond, VA.

We obtained a population of 1,102 PQDRs which were closed between August 2013 and February 2014 where DLA Aviation functioned as the action point. From this population, we selected a non-statistical sample of 68 PQDRs to evaluate. These 68 PQDRs resulted in 52 unique investigations because originators sometimes submit multiple PQDRs for the same deficiency and DLA generally combines investigations. We focused primarily on those identified as high priority deficiencies (category I) or that were related to items identified as critical safety items. We also considered other factors such as price of the parts involved and the availability of exhibits.

We reviewed each of these 52 PQDR investigations to determine whether the DLA quality assurance specialist had performed an adequate investigation to determine the root cause of the reported deficiency. During these reviews, we interviewed the quality assurance specialist who performed the investigation as well as their supervisor. We also reviewed documentation of the investigation, such as the original complaint, DLA and DCMA investigation findings, pictures, and technical drawings.

We obtained a larger population of PQDR coding data from both PDREP and EBS. This population includes 9,347 PQDRs which DLA closed between August 2013 and August 2014 where one of DLA's major supply centers had functioned as the action point. We examined this entire population to evaluate whether PQDR coding data were consistent between PDREP and EBS.

## Use of Computer-Processed Data

We used computer-processed data from PDREP and EBS. We obtained data from PDREP in the form of PQDRs closed between August 2013 and February 2014. We focused on PQDRs where DLA Aviation was the action point for the investigation. The PQDRs were generally initiated in either PDREP or JDRS by Air Force or Navy personnel, and then transmitted to EBS. To test the reliability of the PDREP data, we reviewed the PQDRs and validated the accuracy of the investigation results and coding listed in PDREP by interviewing the DLA Aviation quality assurance specialist that performed the investigation and coded the PQDR in EBS.

We obtained data from EBS in the form of PQDR investigation coding entered into EBS by DLA Aviation quality assurance personnel. To test the reliability of the EBS data, we interviewed the DLA Aviation quality assurance specialist that performed the investigation and coded the PQDR in EBS, and we also compared the coding for sampled PQDRs in EBS to the coding in PDREP.

We identified unreliable PQDR coding in EBS and PDREP, the details on these deficiencies are provided in the finding section of this report.

## Prior Coverage

During the last 5 years, the Government Accountability Office (GAO) and the Department of Defense Inspector General (DoD IG) issued two reports discussing Product Data Reporting and Evaluation System or Product Quality Deficiency Reports. Unrestricted GAO reports can be accessed at <http://www.gao.gov>. Unrestricted DoD IG reports can be accessed at <http://www.dodig.mil/pubs/index.cfm>.

### **GAO**

Report No. GAO-10-389, “DoD Should Leverage Ongoing Initiatives in Developing Its Program to Mitigate Risk of Counterfeit Parts,” March 2010

### **DoD IG**

Report No. DODIG-2010-035, “Defense Logistics Agency Contracts for M2 Machine Gun Spare Parts in Support of Operations in Southwest Asia,” January 11, 2010

## Appendix B

### Product Quality Deficiency Reporting Process

#### ***PQDR Process Walk Through***

The following is a narrative of the PQDR process when DLA is the action point, which is illustrated by Figure B on page 31.

1. A user at a military department repair center (originator) discovers a problem with a DLA managed part requisitioned from supply and initiates a PQDR in the appropriate system.
2. Responsible personnel at the military department supply activity, (screening point) are notified of the PQDR and verify the completeness and validity of the complaint, and assign it to DLA (action point).
3. PDREP forwards the PQDR to EBS.
4. A quality assurance specialist at the appropriate DLA field activity responsible for the part will receive notification in their workflow of a new PQDR and begin a review investigating the deficiency.<sup>11</sup>
5. The quality assurance specialist acknowledges the PQDR and then determines whether the part was under DCMA purview and engages DCMA as a support point<sup>12</sup> if required for the investigation.
6. The contractor is notified of the PQDR and requests the exhibit (defective part) from the support point.
7. The action point will be notified from the support point that an exhibit is required by the contractor and they will then request the exhibit from the originator.
8. The originator ships the exhibit to the contractor.
9. The contractor under supervision of the support point will open the exhibit and perform testing of the exhibit to determine whether it is defective.
10. After testing, the support point and contractor will determine if the deficiency is valid and send their findings to the action point.<sup>13</sup>

<sup>11</sup> If the PQDR is valid, then the action point continues with investigation. If not, they will close the PQDR out as being invalid.

<sup>12</sup> DCMA is only engaged if they are appropriate support point. In other instances the action point may go straight to the contractor or they may obtain assistance from DLA Test Labs.

<sup>13</sup> If the deficiency was valid, then the action point will determine a root cause and assign coding in EBS. If the defect was not valid, the PQDR will be closed out.

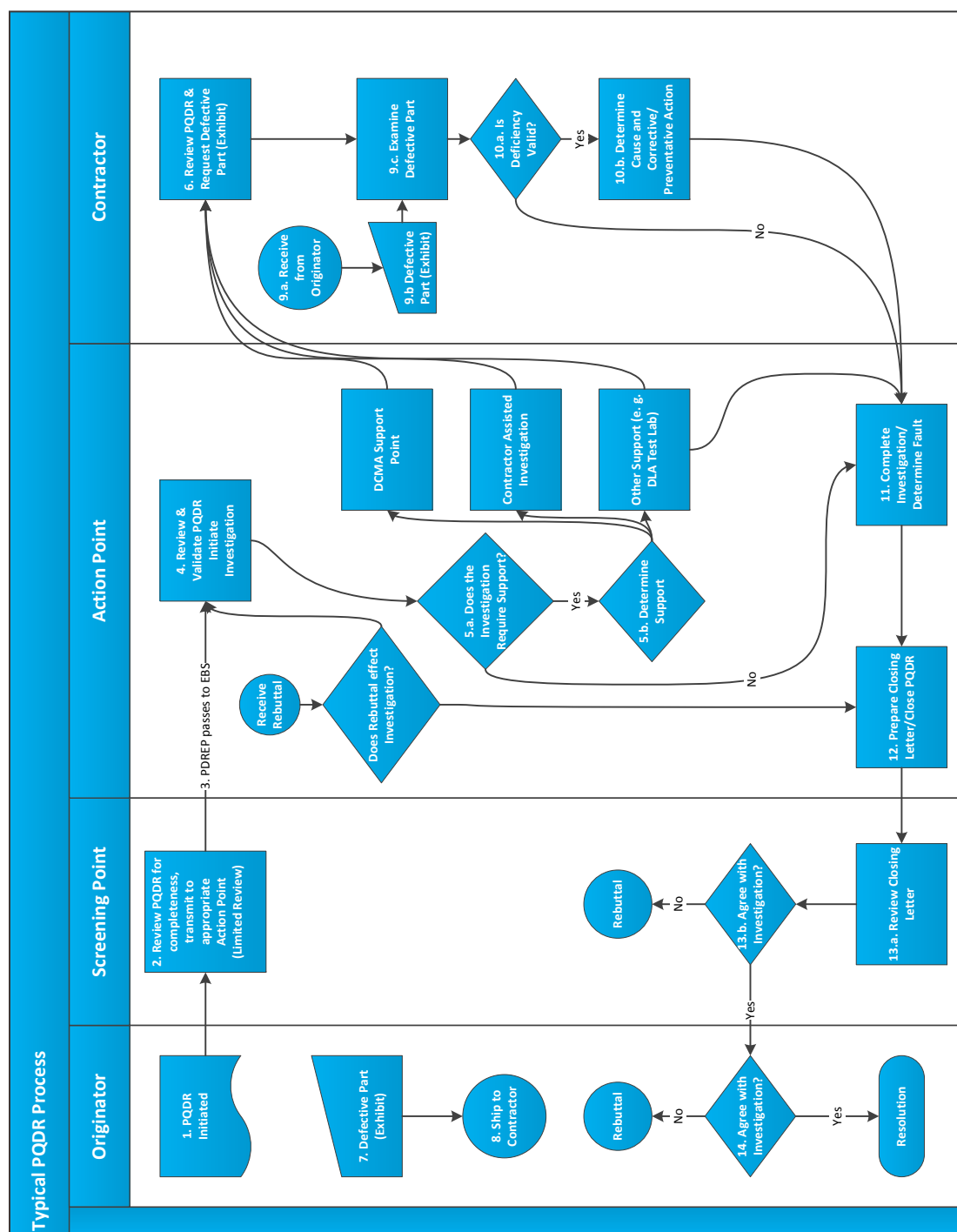
11. The quality assurance specialist (action point) will review the findings from the test and perform any additional analysis needed to determine the root cause of the deficiency. He then assigns codes and enters text to explain the cause of the deficiency, the party responsible for the deficiency (contractor or Government), actions taken to correct the deficiency, and the disposition of the defective product.
12. The action point will prepare a closing letter based on the findings and analysis and issue it to the screening point.
13. The screening point will review the closing letter and if they agree with the findings, forward the closing letter to the originator.<sup>14</sup>
14. The originator will review the closing letter, if they agree with the findings the deficiency is considered resolved.<sup>15</sup>

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<sup>14</sup> If the screening point disagrees, they may rebut the findings of the investigation and PQDR will remain open.

<sup>15</sup> The originator also has the opportunity to review the findings of the investigation in the closing letter and can consider the PQDR resolved, or they can rebut the findings and not close out the PQDR.

Figure B. Typical PQDR Process Flow Chart



# Appendix C

## Past Performance Information Retrieval System Quality Rating Process

### PPIRS Quality Performance Rating Process

PPIRS provides past delivery and quality performance information for commodities including contracts under the thresholds established in the PPIRS report card system. PPIRS uses past quality data to assign a quality color code to contractors for each Federal Supply Class (FSC) for which they have been awarded contracts.

The quality formula is:

**(Positive weighted data minus negative weighted data) / Contract FSC Line Item Total**

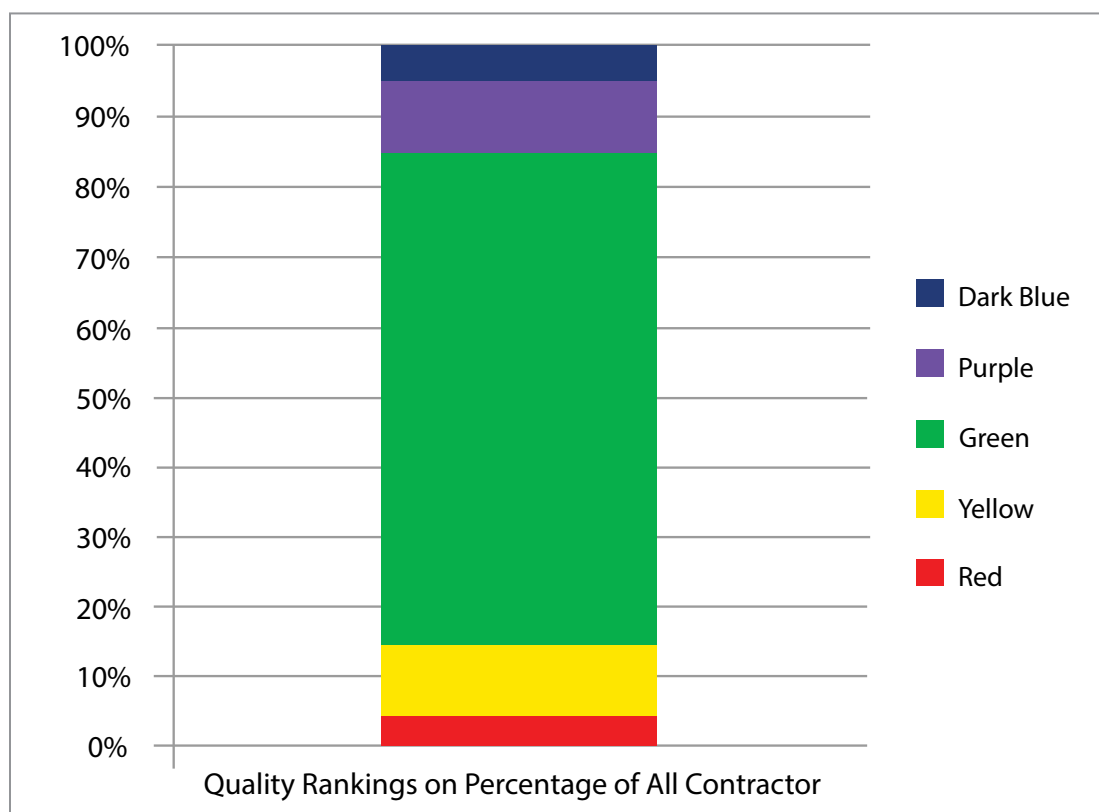
If there were no delivery data available, a value of “1” would be used for the bottom quotient (figure). The table below lists the quality performance records PPIRS used to rate contractor’s quality performance and the weight factors for each.

Table C. Types of Contractor Quality Data and Associated Weighting

| Record                                           | Service     | Positive Weight | Negative Weight                                 |
|--------------------------------------------------|-------------|-----------------|-------------------------------------------------|
| Bulletins                                        | Navy        | N/A             | -1.0 (critical)<br>-0.7 (major)                 |
| Government Industry Data Exchange Program Alerts | All         | N/A             | -1.0 (critical)<br>-0.7 (major)<br>-0.2 (minor) |
| Material Inspection Reports                      | Navy        | +1              | -1.0 (critical)<br>-0.7 (major)<br>-0.2 (minor) |
| PQDRs                                            | All         | N/A             | -1.0 (category I)<br>-0.7 (category II)         |
| Surveys (excluding Preaward Surveys)             | DCMA & Navy | +0.7            | -0.7 (others)                                   |
| Test Report (1st Article, Production, etc.)      | Navy        | +0.5            | -0.5                                            |

PPIRS assigns a color to each FSC for which there is quality performance data. Color is based on the high 5 percent in the commodity (dark blue), next 10 percent (purple), next 70 percent (green), next 10 percent (yellow), and last 5 percent (red). In this calculation, the companies are classified based on quality performance comparisons for all competitors within an FSC. The Figure below illustrates the color codes that PPIRS assigns to contractors based on quality.

Figure C. PPIRS Quality Performance Rating Color Codes



NOTE: If there was only one percentage group for an entire FSC, the group would be classified as green. If a contractor had delivery data but no quality data for a given FSC, that contractor would automatically receive a green rating (Delivery Green).

For example, consider three contractors producing items in a given FSC. Each contractor had a total of three contract line items. Contractor A had one PQDR (category I), contractor B had two PQDRs (category I), and contractor C had three PQDRs (category I). Their respective quality calculations would be as follows (Note: the examples below assume no positive weighted data and their color rating would be determined based on the distribution of all contractors within the FSC):

- Contractor A: 1 PQDR:  $(1 \times 1.0 = 1.0)$   
 $(0 - 1.0) / 3 = -0.333$
- Contractor B: 2 PQDRs:  $(2 \times 1.0 = 2.0)$   
 $(0 - 2.0) / 3 = -0.667$
- Contractor C: 3 PQDRs:  $(3 \times 1.0 = 3.0)$   
 $(0 - 3.0) / 3 = -1.000$

## Management Comments

### Defense Logistics Agency Comments



DEFENSE LOGISTICS AGENCY  
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8725 JOHN J. KINGMAN ROAD  
FORT BELVOIR, VIRGINIA 22060-6221

MAY 27 2015

MEMORANDUM FOR DEPARTMENT OF DEFENSE INSPECTOR GENERAL  
(ACQUISITION, PARTS, and INVENTORY)

SUBJECT: Response to DoD IG Draft Report "DLA Can Improve Its Product Quality  
Deficiency Report Processing," (Project No. D2014-D000AG-0205.000)

Attached is the Defense Logistics Agency's (DLA) response to the subject Draft Report.  
We appreciate the opportunity to review and comment on the findings and recommendations.

The point of contact for this audit is [REDACTED], DLA Office of the Inspector  
General, [REDACTED] or email: [REDACTED]

A handwritten signature in black ink, reading "V. Griffith", is positioned above the printed name.

VINCE GRIFFITH  
Rear Admiral, SC, USN  
Director, DLA Logistics Operations

Attachment:  
As stated

## Defense Logistics Agency Comments (cont'd)

### Response to DoDIG Report on “Defense Logistics Agency Can Improve Its Product Quality Deficiency Report Processing”, (Project No. D2014-D000AG-0205.000)

As requested, we are providing responses to the general content and recommendations contained in the subject report.

#### RECOMMENDATION 1

We recommend that the Director, Defense Logistics Agency develop a plan of action with milestones to improve product quality deficiency report processing and ensure that the corrective actions are implemented at all Defense Logistics Agency Supply Chains that process product quality deficiency reports. The plan should address the problems that this report identified and:

**Recommendation 1.a.** Update existing guidance for quality assurance specialists to:

- (1) clarify the product quality deficiency cause code definitions and providing specific examples of situations that warrant the use of each specific code;
- (2) specify how the coding decisions impact contractors' quality ratings in the Past Performance Information Retrieval System; and
- (3) address the sufficiency of supervisory reviews and include specific procedures necessary when reviewing the results of a product quality deficiency report investigation.

**Response:** Concur. DLA J3 Management will work with the DLA Supply Chains to develop and implement corrective actions specific to DLA by December 18, 2015:

- DLA J3 management will address all concerns and provide additional information that addresses all concerns in the Technical Quality Procedures Deskbook, the Product Quality Job Aid and the Product Quality Supervisory Review Job Aid.

**Recommendation 1.B.** Establish the integrity of the product quality deficiency reporting coding then develop procedures, controls, and appropriate metrics to identify problems, trends, and recurring deficiencies in spare part quality to improve the operational effectiveness of the program and provide training to ensure that the problems this report identified do not reoccur.

**Response:** Concur. J3 will pursue a standardized suite of product quality deficiency report metrics for DLA eWorkplace and will update the Product Quality Deficiency Report course to ensure that the concerns in this report are addressed. Targeted completion date: December 2015.

**Recommendation 1.C.** Require coordination with the U.S. Navy Product Data Reporting and Evaluation Program Office and other relevant organizations to:

- (1) ensure planned corrective actions are implemented for improved communication between the Enterprise Business System, Product Data Reporting and Evaluation Program and Joint Deficiency Reporting System and will sufficiently maintain

## Defense Logistics Agency Comments (cont'd)

- the integrity of Defense Logistics Agency product quality deficiency report investigation results and associated coding, and
- (2) develop periodic review procedures to ensure that the integrity of Defense Logistics Agency product quality deficiency report investigations and associated coding in the Enterprise Business System is maintained in the Product Data Reporting and Evaluation Program.

**Response:** Concur. DLA will continue to work with the DoD Joint PQDR Committee and functional experts to implement and update supporting systems in accordance with the DLM 4000.25, 842P Implementation Plan. Target implementation date for system updates: February 2017

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**The following summarizes report findings regarding DLA Aviation and the respective responses from DLA Aviation:**

### Finding

DLA Aviation quality assurance personnel conducted adequate investigations for product quality deficiency reports. However, they did not adequately process 21 of 52 that were non-statistically sampled and properly code them to reflect the root causes of the deficiencies determined by their investigations. This occurred because:

### Finding 1

- Quality assurance personnel lacked sufficient guidance to make appropriate coding decisions and did not have a complete understanding of how their coding actions impacted contractor's quality ratings.

**Response:** Concur. The DLAR 4155.24 (authoritative document for PQDR reporting and processing) briefly describes the Broad/Detailed Cause Codes and the Deficiency Responsibility codes for PQDRs. These codes are used to better define what the root cause of the problem was and to determine who (contractor or government) was responsible/liable for the reported deficiency. However, neither DLAR 4155.24, nor any of the current PQDR guidance sufficiently expands the cause code definitions and provide examples of when to use them. DLA Aviation PQDR BPAs have taken the action to provide training to the Product Specialists on applying the proper cause codes. Additionally, we have coordinated with Procurement – to brief the Tech/Quality community on the Past Performance Information Retrieval System (PPIRS) and the importance of properly assigning cause codes – where the contractor has been identified through the investigation as the responsible/liable party.

### Finding 2

- Supervisors failed to conduct adequate reviews of product quality deficiency report investigations.

**Response:** Concur. Supervisors, in many cases focused on reviewing the content of the PQDR closing letter rather than the specific cause code assignments in EBS. If the closing letter contained all of the appropriate information (represented a thorough investigation with sound

## Defense Logistics Agency Comments (cont'd)

recommendations), the supervisor was apt to approve the report without properly reviewing the assigned cause codes. We have since provided training to supervisors on how to properly review PQDR reports to ensure the assigned codes in EBS corresponds to the findings and conclusions in the PQDR closing letter. The training is ongoing and available upon request. In addition, supervisors can reference the PQDR Supervisory Review Job Aid.

### **Finding 3**

- The product quality deficiency report program lacked adequate oversight to improve operational effectiveness.

**Response:** Partially concur. While PQDR reduction is emphasized; DLA Aviation has also continuously provided training on processing PQDRs. Walk-up/on the spot training as well as Division/Group training is available to the Technical/Quality community. Yes, we can certainly improve the overall operational effectiveness of the program by identifying problems, trends, and recurring deficiencies. To this end, we have begun to sample PQDR data to monitor increases in undetermined root causes as well as identify instances of recurring deficiencies. In addition, J3 will establish a suite of standardized product quality deficiency report metrics to be collected and analyzed throughout the DLA Enterprise in eWorkplace.

## Acronyms and Abbreviations

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|               |                                               |
|---------------|-----------------------------------------------|
| <b>DCMA</b>   | Defense Contract Management Agency            |
| <b>DLA</b>    | Defense Logistics Agency                      |
| <b>DoD IG</b> | Department of Defense Inspector General       |
| <b>EBS</b>    | Enterprise Business System                    |
| <b>FSC</b>    | Federal Supply Class                          |
| <b>GAO</b>    | Government Accountability Office              |
| <b>JDRS</b>   | Joint Deficiency Reporting System             |
| <b>PDREP</b>  | Product Data Reporting and Evaluation Program |
| <b>PPIRS</b>  | Past Performance Information Retrieval System |
| <b>PQDR</b>   | Product Quality Deficiency Report             |

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