Report No. DODIG-2025-009

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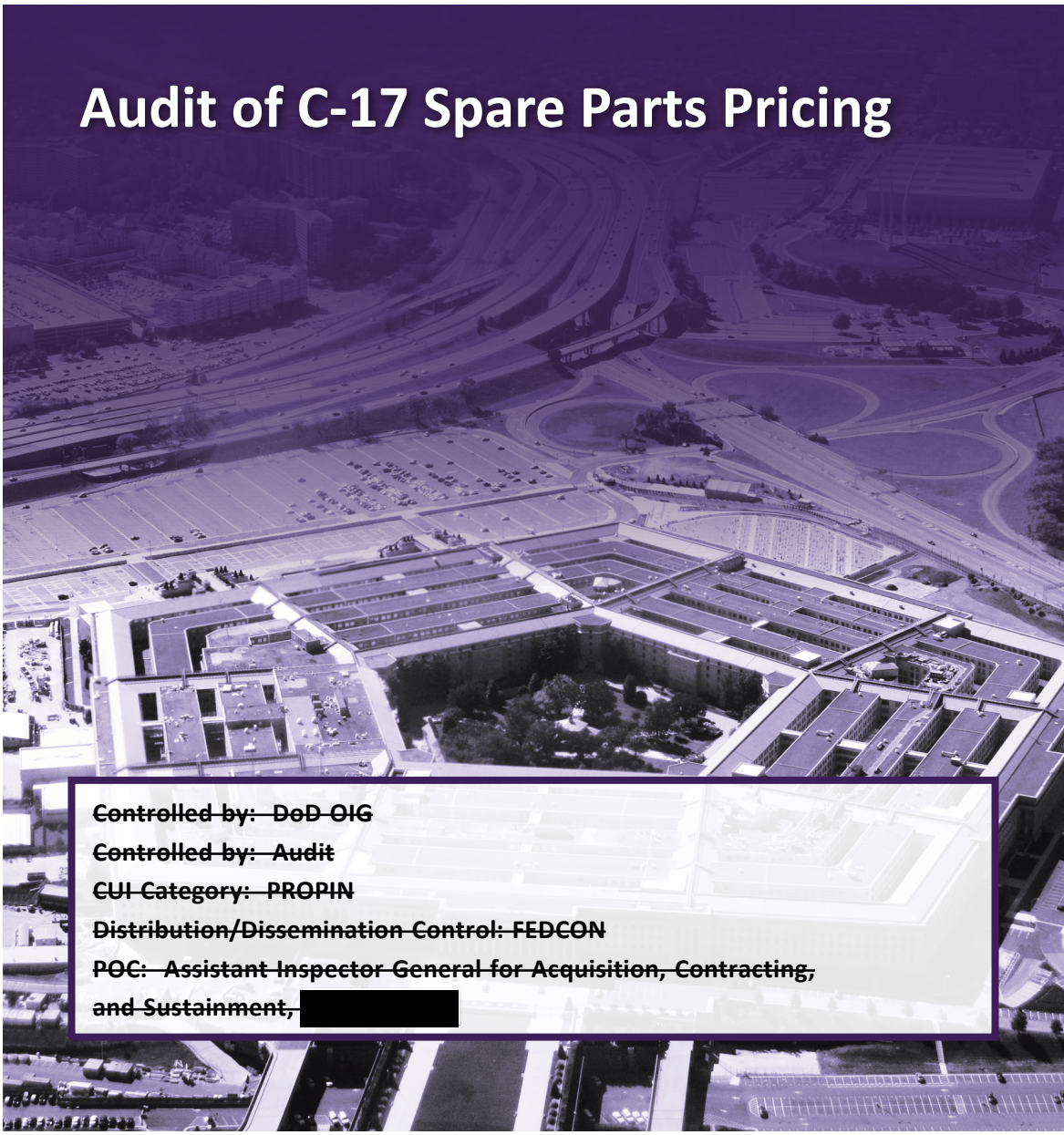
INSPECTOR GENERAL

U.S. Department of Defense

OCTOBER 25, 2024

Audit of C-17 Spare Parts Pricing



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INDEPENDENCE ★ INTEGRITY ★ EXCELLENCE ★ TRANSPARENCY

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INSPECTOR GENERAL
INTEGRITY
EFFICIENCY
DEPARTMENT OF DEFENSE

(U) Results in Brief

Audit of C-17 Spare Parts Pricing

October 25, 2024

(U) Objective

(U) The objective of this audit was to determine whether the Air Force purchased spare parts at fair and reasonable prices for the C-17 military transport aircraft under the performance-based logistics contracts.

(U) Background

(U) We initiated the audit in response to an allegation to the DoD Hotline concerning spare parts pricing. The allegation stated that the Boeing Company (Boeing) overcharged the Air Force for a lavatory soap dispenser used on the C-17. The C-17 is the Air Force's cargo aircraft and is used for military, humanitarian, and peacekeeping missions.

(U) On October 1, 2011, the C-17 Globemaster III Division awarded Boeing a 10-year, $11.8 billion sole-source acquisition contract for the C-17 Globemaster III Integrated Sustainment Program (GISP). On September 28, 2021, the Air Force awarded Boeing the Globemaster III Sustainment (G3) contract, a follow-on $23.8 billion contract, which continues service to the C-17 through 2031. Through the GISP and the G3 contracts, Boeing purchased the needed spare parts for the C-17 and the Air Force reimbursed Boeing for the spare parts purchased.

(U) Finding

(U) The Air Force did not always pay reasonable prices for C-17 spare parts, in accordance with the Federal Acquisition Regulation, such as the lavatory soap dispenser, which was a 7,943-percent markup or more than 80 times the commercially available cost. Specifically, for the 46 spare parts we reviewed, the Air Force paid fair and reasonable prices for 9 spare parts, or 20 percent, valued at $20.3 million; we could not determine whether the Air Force paid fair and reasonable prices for 25 spare parts, or 54 percent, valued at $22.2 million; and the Air Force did not pay fair and reasonable prices for 12 spare parts, or 26 percent, valued at $4.3 million.

(U) This occurred because the Air Force did not:

- (U) validate the accuracy of data used for contract negotiation,
- (U) conduct contract surveillance to identify price increases during contract execution, or
- (U) review invoices to determine fair and reasonable prices before payment.

(U) In addition, the DoD did not provide clear guidance to the contracting officer to verify the accuracy of the bill of materials before negotiation or to review invoices for allowable, allocable, and reasonable costs before payment.

(U) As a result, the Air Force overpaid $992,856 for 12 spare parts on the GISP and G3 performance-based logistics contracts from FYs 2018 through 2022.

(U) Recommendations

(U) We made eight recommendations to address the finding in this report. Among other recommendations, we recommended that the Principal Director of Defense Pricing, Contracting, and Acquisition Policy coordinate with the Defense Acquisition Regulations Council to clarify requirements in the Federal Acquisition Regulation for requesting a technical analysis on bill of materials and forecasting systems, and for reviewing invoices before payment.

(U) Results in Brief

Audit of C-17 Spare Parts Pricing

(U) Management Comments and Our Response

(U) The Deputy Director of the Defense Contract Management Agency agreed to review the accuracy of Boeing's demand forecasting for spare parts; therefore, the recommendation is resolved but remains open. We will close the recommendation once we verify that management has completed the agreed-upon actions.

(U) The Principal Director of Defense Pricing, Contracting, and Acquisition Policy partially agreed with two recommendations; however, the responses did not address the specifics of the recommendations to update the Federal Acquisition Regulation for requesting a technical analysis on bill of materials and forecasting systems, and for reviewing invoices before payment. Therefore, the two recommendations are unresolved.

(U) The Air Force Materiel Command Deputy Director of Staff, responding for the Air Force Life Cycle Management Center Commander, agreed with five recommendations; however, the responses did not fully address the specifics of the recommendations. Therefore, the five recommendations are unresolved.

(U) We request that the Principal Director of Defense Pricing, Contracting, and Acquisition Policy and the Commander of the Air Force Life Cycle Management Center provide comments within 30 days in response to the final report to address the recommendations. Please see the Recommendations Table on the next page for the status of recommendations.

(U) Recommendations Table

(U) Management	Recommendations Unresolved	Recommendations Resolved	Recommendations Closed
Principal Director, Defense Pricing, Contracting, and Acquisition Policy	3.a, 3.b	None	None
Director, Defense Contract Management Agency	None	2	None
Commander, Air Force Life Cycle Management Center	1.a, 1.b, 1.c, 1.d, 1.e	None	None (U)

(U) Please provide Management Comments by November 25, 2024

(U) Note: The following categories are used to describe agency management's comments to individual recommendations.

- **(U) Unresolved** – Management has not agreed to implement the recommendation or has not proposed actions that will address the recommendation.
- **(U) Resolved** – Management agreed to implement the recommendation or has proposed actions that will address the underlying finding that generated the recommendation.
- **(U) Closed** – The DoD OIG verified that the agreed upon corrective actions were implemented.

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

October 25, 2024

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION AND SUSTAINMENT
DIRECTOR, DEFENSE CONTRACT MANAGEMENT AGENCY
AUDITOR GENERAL, DEPARTMENT OF THE AIR FORCE

SUBJECT: (U) Audit of C-17 Spare Parts Pricing (Report No. DODIG-2025-009)

(U) This final report provides the results of the DoD Office of Inspector General's audit. We previously provided copies of the draft report and requested written comments on the recommendations. We considered management's comments on the draft report when preparing the final report. These comments are included in the report.

(U) The Deputy Director of the Defense Contract Management Agency agreed to address the recommendation presented in the report; therefore, we consider the recommendation resolved and open. We will close the recommendation when management provides us documentation showing that all agreed-upon actions to implement the recommendation are completed. Therefore, please provide us within 90 days your response concerning specific actions in process or completed on the recommendations. Send your response to either followup@dodig.mil if unclassified or rfunet@dodig.smil.mil if classified SECRET.

(U) This report contains seven recommendations that are considered unresolved because the Principal Director of Defense Pricing, Contracting, and Acquisition Policy and the Commander of the Air Force Life Cycle Management Center did not fully address the recommendations presented in the report. Therefore, the recommendations remain open. We will track these recommendations until management has agreed to take actions that we determine to be sufficient to meet the intent of the recommendations and management officials submit adequate documentation showing that all agreed-upon actions are completed.

(U) DoD Instruction 7650.03 requires that recommendations be resolved promptly. Therefore, please provide us within 30 days your response concerning specific actions in process or alternative corrective actions proposed on the recommendations. Send your response to either followup@dodig.mil if unclassified or rfunet@dodig.smil.mil if classified SECRET. If you have any questions, please contact me at [redacted]. We appreciate the cooperation and assistance received during the audit.

FOR THE INSPECTOR GENERAL:

Carmen J. Malone
Assistant Inspector General for Audit
Acquisition, Contracting, and Sustainment

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(U) Introduction

(U) Objective

(U) The objective of this audit was to determine whether the Air Force purchased spare parts at fair and reasonable prices for the C-17 military transport aircraft under the performance-based logistics (PBL) contracts.[1] See Appendix A for a discussion of the scope and methodology and prior coverage related to the audit objective.

(U) Background

(U) We initiated the audit in response to a DoD Hotline allegation concerning spare parts pricing. Specifically, the allegation stated that the Boeing Company (Boeing) overcharged the Air Force for a lavatory soap dispenser used on the Globemaster III (C-17). See Appendix B for details about the DoD Hotline allegation.

(U) The C-17 is the Air Force's most flexible cargo aircraft to enter the airlift force. Developed by Boeing, the C-17 has been in service for 30 years. The C-17 is a principal transporter for military, humanitarian, and peacekeeping missions. The C-17 is capable of rapid strategic delivery of troops and cargo to main operating bases or to forward operating bases in a deployment area.[2] The Air Force has a fleet of 222 C-17 aircraft operated by the Air Force, Air National Guard, and the Air Force Reserve Command. See Figure 1 for a picture of a C-17.

(U) Figure 1. C-17 Globemaster III
(U) Source: The Air Force.

[1] (U) This report contains information that has been redacted because it was identified by the Department of Defense as Controlled Unclassified Information (CUI) that is not releasable to the public. It also contains information that was received directly from the Boeing Company and has been redacted and marked CUI at the insistence of company officials who do not consent to the release of their information to Congress or to the public. We discuss this further in Appendix A. CUI is Government-created or owned unclassified information that allows for, or requires, safeguarding and dissemination controls in accordance with laws, regulations, or Government-wide policies.

[2] (U) A main operating base is a facility outside the United States and its territories with permanently stationed operating forces and robust infrastructure.

(U) Roles and Responsibilities

(U) The Principal Director of Defense Pricing, Contracting, and Acquisition Policy reports to the Assistant Secretary of Defense (Acquisition) and is responsible for pricing and contracting policy matters across the DoD.[3] Defense Pricing, Contracting, and Acquisition Policy personnel execute statutes, executive orders, and policy through the timely update of the Federal Acquisition Regulation (FAR) and Defense Federal Acquisition Regulation Supplement (DFARS). The FAR prescribes policies and procedures for requesting and analyzing data from contractors, negotiating fair and reasonable prices, performing a technical analysis of proposed types and quantities of materials (spare parts), providing oversight of contractor performance, and determining allowable cost and payment.[4] In addition, the DFARS prescribes policies and procedures for analyzing data from contractors and approving vouchers (invoices).[5]

(U) The Defense Contract Audit Agency (DCAA) operates under the authority of the Under Secretary of Defense (Comptroller)/Chief Financial Officer. The DCAA performs prepayment reviews that verify that the contract number, invoice number, and dollar amount on the invoice agree with the supporting documentation attached to the invoice; it is not a detailed review of the allowability, allocability, and reasonableness of specific costs. In addition, the DCAA performs incurred cost audits of the contractor's costs reimbursed or claimed for the fiscal year to verify the allowability, allocability, and reasonableness of the contractor's cost in accordance with the FAR. The scope of the incurred cost audit covers all the contractor's business operations as opposed to individual contracts. To perform incurred cost audits, DCAA auditors perform testing on selected cost areas such as direct labor cost, material cost, and subcontractor cost based on prior audit results, materiality, and risk. Furthermore, Government agencies can request contract audit services from the DCAA, such as a review of specific contractor invoices to determine whether costs were allowable, allocable, and reasonable.

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[3] (U) On July 2, 2024, Defense Pricing and Contracting changed its name to Defense Pricing, Contracting, and Acquisition Policy.

[4] (U) FAR Part 15, "Contracting by Negotiation," Subpart 15.4, "Contract Pricing," Section 15.402, "Pricing Policy;" Section 15.404, "Proposal analysis," Subsection 15.404-1, "Proposal analysis techniques," Paragraph (e), "Technical analysis;" and Section 15.405, "Price negotiation."

FAR Part 31, "Contract Cost Principles and Procedures," Subpart 31.2, "Contracts with Commercial Organizations," Section 31.201, "General," Subsection 31.201-2, "Determining allowability."

FAR Part 52, "Solicitation Provisions and Contract Clauses," Subpart 52.2, "Text of Provisions and Clauses," Section 52.215, "Reserved," Subsection 52.215-2, "Audit and Records-Negotiation;" and Section 52.216, "Reserved," Subsection 52.216-7, "Allowable Cost and Payment."

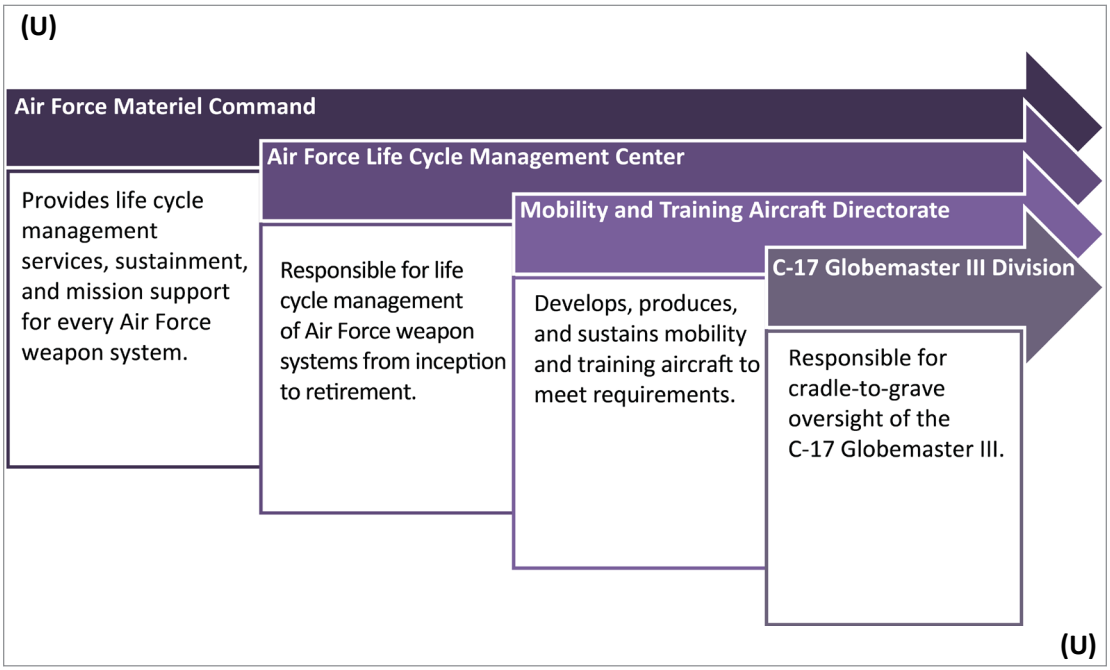
[5] (U) DFARS Part 215, "Contracting by Negotiation," Subpart 215.4, "Contract Pricing," Section 215.404, "Proposal analysis," Subsection 215.404-1 "Proposal analysis techniques."

DFARS Part 242, "Contract Administration," Subpart 242.8, "Disallowance of Costs," Section 242.803, "Disallowing costs after incurrence."

(U) The DoD "Contracting Officer's Representatives Guidebook" (COR Guidebook) and the DFARS detail the invoice review and approval responsibilities for contract administration personnel, such as the contracting officer, contracting officer's representative (COR), and the DCAA auditor.[6] According to the DoD COR Guidebook, for cost-reimbursement contracts, CORs can review, but not approve, invoices for payment. Additionally, the COR Guidebook states that, for other than fixed-price contracts, the DCAA has the sole authority for verifying claimed costs and approving interim payment requests.

(U) The Air Force Materiel Command, the Air Force Life Cycle Management Center, the Mobility and Training Aircraft Directorate, and the C-17 Globemaster III Division are involved with the life cycle management of the C-17. See Figure 2 for the Air Force's roles and responsibilities for the life cycle management of the C-17.

(U) Figure 2. Air Force Roles and Responsibilities



(U) Source: The DoD OIG.

[6] (U) DoD, "Contracting Officer's Representatives Guidebook," May 2021.
(U) DFARS 242.803.

(U) Globemaster III Sustainment Contracts

(U) On October 1, 2011, the C-17 Globemaster III Division awarded the C-17 Globemaster III Integrated Sustainment Program (GISP) sole-source acquisition contract to Boeing.[7] The contract was a 10-year, $11.8 billion, indefinite-delivery indefinite-quantity, PBL contract.[8] The contract had a 5-year base period and five 1-year option periods. The GISP contract included material, equipment, and engine management; sustainment logistics, planning, and engineering; quality assurance; depot maintenance; and foreign military customer service. Using the GISP contract, the Air Force awarded four delivery orders for spare parts, valued at a total of $1.7 billion.

(U) On September 28, 2021, the Air Force awarded Boeing the Globemaster III Sustainment (G3) contract, a follow-on $23.8 billion, indefinite-delivery indefinite-quantity, PBL contract, which continues service to the C-17 through 2031. The contract includes three 12-month ordering periods, two 37-month options, and a 6-month option to extend services. On October 1, 2021, the Air Force awarded the first material delivery order for spare parts, with an estimated value of $648.1 million.

(U) All the material delivery orders, except one delivery order, were awarded using a cost-plus-incentive-fee contract. The first material delivery order of the contracts was awarded using a cost-plus-fixed-fee contract. Cost-plus-fixed-fee contracts are cost-reimbursement contracts in which the Government pays allowable incurred costs plus a negotiated fee that is fixed. Cost-plus-incentive-fee contracts are cost-reimbursement contracts in which the Government pays allowable incurred costs plus an initially negotiated fee that the Government adjusts later by a formula based on the relationship of total allowable costs to total target cost.[9]

(U) For the GISP and G3 contracts, Boeing purchased the needed spare parts for the C-17, and the Air Force reimbursed Boeing for the spare parts purchased. Boeing is responsible for being an effective agent of the Government when purchasing the spare parts, which includes obtaining fair and reasonable prices.[10] The Air Force is responsible for providing surveillance during performance of the contracts to ensure Boeing uses effective cost controls.[11]

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[7] (U) Sole-source acquisition means a contract for the purchase of supplies or services that an agency enters into after soliciting and negotiating with only one source, which typically occurs because only one source is available.

[8] (U) There are three types of indefinite-delivery contracts—definite-quantity contracts, requirements contracts, and indefinite-quantity contracts. The appropriate type of indefinite-delivery contract may be used to acquire supplies, services, or both when the exact times, quantities, or both of future deliveries are not known at the time of contract award. An indefinite-quantity contract provides for an indefinite quantity, within stated limits, of supplies or services during a fixed period. The Government places orders for individual requirements. Quantity limits may be as number of units or as dollar values.

[9] (U) FAR Part 16, "Types of Contracts," Subpart 16.3, "Cost-Reimbursement Contracts," Sections 16.304, "Cost-plus-incentive-fee contracts;" and 16.306 "Cost-plus-fixed-fee contracts."

[10] (U) DFARS Part 252, "Solicitation Provisions and Contract Clauses," Subpart 252.2, "Text of Provisions and Clauses," Section 252.244-7001, "Contractor Purchasing System Administration." This contract clause is in the GISP and G3 contracts.

[11] (U) FAR Part 16, "Types of Contracts," Subpart 16.3, "Cost-Reimbursement Contracts," Section 16.301, "General," Subsection 16.301-3, "Limitations."

(U) Bill of Material and Price Negotiations

~~(CUI)~~ Boeing used the Boeing Spares Resource Allocation Model (BSRAM) to generate the bill of material (BOM) for the GISP and G3 contracts. BSRAM is a forecasting system that uses inputs such as flight hours, parts and part information lists, locations, inventory, reliability, and new buy/repair costs to generate the BOM. The parts in the BOM, generated from BSRAM, represent an estimate of the types and quantities of parts that Boeing believes will be required to meet contractual requirements based on stock levels, maintenance schedules, models that predict which parts will need replacement, and parts that will require repair in the next few years. During negotiations of the GISP and G3 contracts, [redacted][12] [redacted]

(U) Spare Parts Reviewed

(U) We reviewed spare parts purchased by Boeing from FYs 2018 through 2022, which included four delivery orders from the GISP contract and one delivery order from the G3 contract.[13] To determine whether Air Force contracting officials paid fair and reasonable prices for the spare parts, we selected a nonstatistical sample of 46 spare parts. The soap dispenser mentioned in the allegation to the DoD Hotline was included in the nonstatistical sample of 46 spare parts. Although we selected the sample using the spare parts purchased on the GISP contract, the Air Force also purchased 17 of the 46 spare parts in our sample on the G3 contract. The total cost of the spare parts sampled from the Air Force's universe of C-17 spare parts for FYs 2018 through 2021 was $31.3 million. See Appendix A for a list of the 46 spare parts we reviewed.

[12] (U) The NPF are a division of Naval Supply Systems Command Weapon Systems Support. The NPF division is a team of acquisition professionals who perform contract proposal evaluations, cost and price analyses, and provides technical assistance and other acquisition support for DoD and Federal agencies.

[13] (U) For the GISP contract FA8526-12-D-0001, we reviewed delivery orders FA8526-18-F-0002, FA8526-19-F-0002, FA8526-20-F-0002, and FA8526-21-F-0002. For the G3 contract FA8526-21-D-0001, we reviewed delivery order FA8526-22-F-0002.

(U) Finding

(U) Air Force Contracting Officials Did Not Always Pay Fair and Reasonable Prices for C-17 Spare Parts

(U) The Air Force did not always pay reasonable prices for C-17 spare parts, such as the lavatory soap dispenser, in accordance with the FAR. Specifically, for the 46 spare parts we reviewed:

- (U) the Air Force paid fair and reasonable prices for 9 spare parts, or 20 percent, valued at $20.3 million;
- (U) we could not determine whether the Air Force paid fair and reasonable prices for 25 spare parts, or 54 percent, valued at $22.2 million; and
- (U) the Air Force did not pay fair and reasonable prices for 12 spare parts, or 26 percent, valued at $4.3 million.

(U) The Air Force did not pay fair and reasonable prices for 12 spare parts because the Air Force did not:

- (U) validate the accuracy of the data used for contract negotiation,
- (U) conduct contract surveillance to identify price increases during contract execution, or
- (U) review invoices to determine fair and reasonable prices before payment.

(U) In addition, the DoD did not issue clear requirements to the contracting officer to verify the accuracy of the BOM before negotiation or to review invoices for allowable, allocable, and reasonable costs before payment.

(U) As a result, the Air Force overpaid $992,856 for 12 spare parts on the GISP and G3 PBL contracts from FYs 2018 through 2022. Until the Air Force establishes controls to require contracting officials review spare parts purchases throughout the execution of the contract, the Air Force will continue to overpay for spare parts for the remainder of the G3 PBL contract, which continues through 2031. The Air Force overpaying for spare parts may reduce the number of spare parts that Boeing can purchase on the contract, which could reduce C-17 readiness worldwide.

(U) Air Force Contracting Officials Did Not Always Pay Fair and Reasonable Prices for Spare Parts

(U) Air Force contracting officials did not always pay reasonable prices for C-17 spare parts, such as the soap dispenser, in accordance with the FAR. The FAR states that contracting officers must purchase supplies and services from responsible sources at fair and reasonable prices.[14] Additionally, the DFARS provides proposal analysis techniques for spare parts. For the purpose of our analysis, we considered prices to be fair and reasonable if the cost was within a 25-percent price variance.[15]

(U) Specifically, for the 46 spare parts we reviewed:

- (U) the Air Force paid fair and reasonable prices for 9 spare parts, or 20 percent, valued at 20.3 million;
- (U) we could not determine whether the Air Force paid fair and reasonable prices for 25 spare parts or 54 percent, valued at 22.2 million; and
- (U) the Air Force did not pay fair and reasonable prices for 12 spare parts, or 26 percent, valued at 4.3 million.[16]

(U) See Appendix C for the list of 12 spare parts for which the Air Force did not pay fair and reasonable prices. The list of spare parts provides the price of a comparable spare part obtained from a DoD vendor, the price that Boeing charged the Air Force for each spare part, the price difference, percentage difference, and the total Boeing purchase contract values.

(U) Air Force Officials Paid Reasonable Prices for 9 Spare Parts and We Were Unable to Determine Whether Prices Were Reasonable for 25 Spare Parts

~~(CUI)~~ The Air Force paid reasonable prices for 9 of 46, or 20 percent, of the C-17 spare parts we reviewed. The Defense Contract Management Agency (DCMA) Commercial Item Group (CIG) assisted the audit team by performing market research. The DCMA CIG obtained supplier quotes and similar parts prices which were within a 25 percent price variance paid by Boeing.[17] The Air Force reimbursed Boeing because the GISP and G3 contracts were cost-reimbursement

[14] (U) FAR 15.402.

[15] (U) DFARS 215.404-1(a).

[16] (U) We calculated the total value of the 12 spare parts from Boeing purchase contracts awarded in FYs 2018 through 2022.

[17] (U) The DCMA CIG's mission is to provide acquisition insight for identifying commercial products and services within the DoD to streamline procurements and ensure that services receive products and services at fair and reasonable prices.

~~(CUI)~~ contracts. For example, for a machine screw, the DCMA CIG identified a market research unit price of [redacted], and the Boeing purchase contract price was [redacted]. Furthermore, we were unable to determine whether the Air Force paid reasonable prices for 25 of 46, or 54 percent, of the C-17 spare parts because the DCMA CIG was unable to obtain supplier quotes or identify commercially similar parts. Additionally, the Air Force did not maintain historical cost data for the 25 spare parts.

(U) Boeing is required to submit a Chief Financial Officer report to the C-17 Globemaster III Division. A Boeing official stated that the goal of the Chief Financial Officer reports was to identify the last acquisition cost of C-17 material, such as spare parts. However, the Boeing official stated that in FY 2021 the methodology for developing the reports changed to a 3-year average cost of acquisition instead of the last acquisition cost of C-17 material. Therefore, the prices listed in the Chief Financial Officer report are not tied to a specific acquisition and cannot be used to determine whether spare parts purchased by Boeing are fair and reasonable. Furthermore, a Boeing official stated that the Air Force did not direct Boeing to change the methodology of the Chief Financial Officer report to the 3-year average cost. The Boeing official stated that the reports do not contain accurate information for financial statement reporting.

(U) Finally, we found 27 spare parts that had at least one instance in which Boeing's purchase price did not match the unit price listed or were not included in the Chief Financial Officer report. For example, Boeing purchased:

- ~~(CUI)~~ two light lenses with a unit price of [redacted], and the Chief Financial Officer report listed the unit price of [redacted];
- ~~(CUI)~~ a manifold assembly with a unit price of [redacted], and the Chief Financial Officer report listed the unit price of [redacted]; and
- ~~(CUI)~~ an aircraft structural panel with a unit price of [redacted], and the Chief Financial Officer report did not include the aircraft structural panel.

(U) The DoD OIG contracted with the independent public accounting firm of Ernst & Young, LLP (Ernst & Young) to audit the Department of the Air Force General Fund Financial Statements. Ernst & Young notified the Air Force of the internal control gaps in FYs 2018 and 2020 in which the Air Force did not oversee, monitor, and accurately report property and materials managed and held by contractors. In FY 2018, Ernst & Young noted that the Air Force did not design controls to monitor the Chief Financial Officer reporting process at the transaction level. In addition, the Chief Financial Officer reports did not contain sufficient disclosure to reconcile the asset and transaction detail to the summary. The lack of oversight over the Chief Financial Officer reporting increased the likelihood

(U) of misstatement of inventory and related property line on the balance sheet and related activity accounts. In FY 2020, Ernst & Young found that there was a likelihood that the data processed by Boeing's inventory system from which the Chief Financial reports are produced was incomplete and inaccurate.[18] Therefore, the Commander of the Air Force Life Cycle Management Center should direct the C-17 System Program Manager to develop controls to ensure the accuracy of Chief Financial Officer reports.

(U) Air Force Officials Did Not Pay Reasonable Prices for 12 Spare Parts

~~(CUI)~~ The Air Force did not pay reasonable prices for 12 of 46, or 26 percent, of the C-17 spare parts we reviewed. For the purpose of our analysis, if a price was 25 percent or more than the spare part price that the DCMA CIG identified, we considered it unreasonable.[19] For example, Boeing purchased [redacted] soap dispensers at a unit price of [redacted]. The DCMA CIG identified a commercially similar soap dispenser with a unit price of [redacted]. According to the DCMA CIG, the overall function of these soap dispensers is identical, whether used in a residential kitchen or bathroom, commercial restaurant bathrooms, or in an aircraft lavatory. The 7,943-percent markup, more than 80 times the commercially available cost, resulted in the Air Force overpaying $149,072 for the [redacted] soap dispensers. Figure 3, left side, shows the soap dispenser Boeing purchased for [redacted], and Figure 3, right side, shows a typical commercial counter-mounted soap dispenser.

(U)

(U)

(U) Figure 3. C-17 Soap Dispenser (Left) and Commercially Similar Soap Dispenser (Right)
(U) Source: The DCMA CIG.

[18] (U) Report No. DODIG-2024-014, "Transmittal of the Independent Auditor's Reports on the Department of the Air Force General Fund Financial Statements and Related Notes for FY 2023 and FY 2022," November 8, 2023.

[19] (U) DFARS 215.404-1(a).

~~(CUI)~~ Boeing also purchased [redacted] pressure transmitters at a unit price of [redacted] The DCMA CIG identified a similar commercially available pressure transmitter with a unit price of [redacted]. The 3,556-percent markup, more than 36 times the commercially available cost, resulted in the Air Force overpaying $142,091 for the [redacted] pressure transmitters. Figure 4 is a similar pressure transmitter the DCMA CIG identified as being available from a commercial source.

(U)

(U)

(U) Figure 4. Example of a Commercially Similar Pressure Transmitter
(U) Source: The DCMA CIG.

~~(CUI)~~ In addition, Boeing purchased [redacted] retaining bands at a unit price of [redacted]. The DCMA CIG identified a similar commercially available retaining band with a unit price of [redacted]. The 833-percent markup, more than nine times the commercially available cost, resulted in the Air Force overpaying $293,633 for the [redacted] retaining bands. Figure 5, left side, is the retaining band purchased by Boeing for [redacted], and Figure 5, right side, is a commercially similar retaining band. See Appendix C for the 12 parts that did not have fair and reasonable prices.

(U) Figure 5. C-17 Retaining Band (Left) and Commercially Similar Retaining Band (Right)
(U) Source: The DCMA CIG.

(U) Air Force Contracting Officials Did Not Obtain Accurate Data, Conduct Contract Surveillance on Price Increases, or Review Invoices

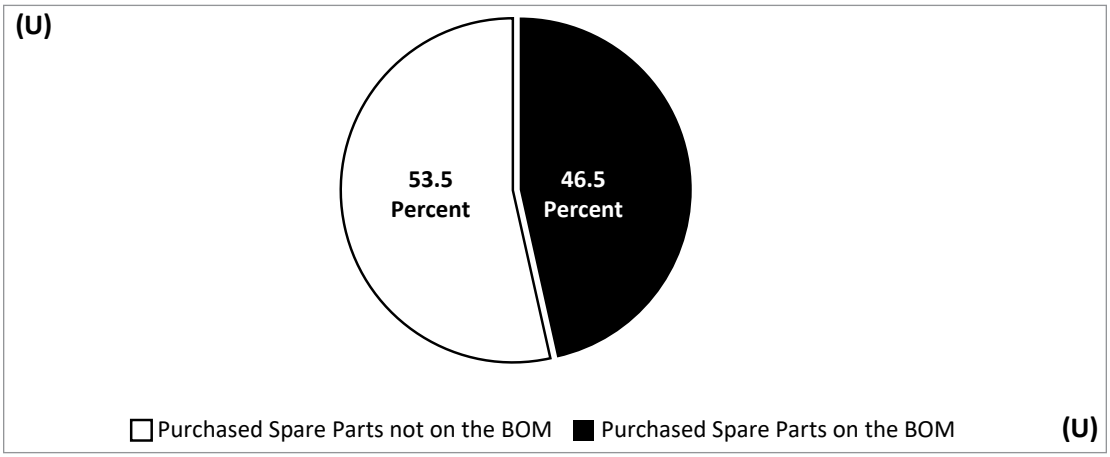
(U) The Air Force did not pay fair and reasonable prices for 12 of 46 spare parts for the C-17 because Air Force contracting officials did not validate the accuracy of data used for contract negotiation. In addition, Air Force contracting officials did not conduct surveillance to identify price increases during contract execution. Finally, the contracting officer did not review invoices to determine fair and reasonable prices before payment.

(U) Air Force Contracting Officials Did Not Use Accurate Data During GISP Contract Negotiation to Establish Reasonable Spare Part Prices

(U) Air Force contracting officials did not use accurate data during contract negotiation. Specifically, the contracting officer did not ensure that DCAA or DCMA officials conducted a review of BSRAM to validate the accuracy of the forecasting model used to generate the spare parts that would be required to meet contractual requirements to sustain the C-17. Boeing used BSRAM to generate the GISP BOM that Air Force contracting officials used to negotiate the GISP contract. However, as shown in Figure 6 the BOM included only 46.5 percent of the spare parts purchased from FYs 2018 through 2021.[20]

[20] (U) We did not analyze the G3 BOM as the performance is ongoing through FY 2024.

(U) Figure 6. C-17 Percent of Spare Parts Purchased and Compared to the Percent of Spare Parts Not on the GISP BOM



(U) Source: The DoD OIG.

(U) The NPF selected parts from the GISP BOM to review material costs; therefore, they could not review any spare parts that were not included on the GISP BOM. When generating the GISP BOM, Boeing did not include 3,311 spare parts purchased for the GISP contract. Therefore, the 3,311 spare parts were not available for the NPF to include in the sampling for fair and reasonable prices. In addition, the contracting officer did not realize the GISP BOM was missing significant quantities of spare parts, and they did not validate the completeness of the GISP BOM. The contracting officer was not aware of the guidance for validating BOMs.

(U) Specifically, the FAR states that the contracting officer should request a technical analysis on the types and quantities of materials (spare parts) to determine the need for and reasonableness of the proposed resources, which includes labor, material, and equipment. At a minimum, the technical analysis should examine the types and quantities of materials (spare parts) proposed.[21]

(U) While the GISP price negotiation memorandum stated that the Air Force completed a technical evaluation of the proposed spare parts generated from BSRAM, the Air Force contracting officials were not able to locate the technical evaluation or any support of a technical evaluation being completed. The Air Force provided a 2008 DCAA evaluation of BSRAM, which found BSRAM to be compliant; however, the DCAA has not conducted a subsequent review of BSRAM to determine its accuracy for forecasting spare part demands.

[21] (U) FAR 15.404-1(e).

~~(CUI)~~ In addition, Boeing officials stated that BSRAM was an outdated forecasting system and at times was only accurate [redacted] to [redacted] percent of the time.[22] According to the DFARS, an acceptable cost estimating system is an estimating system that produces verifiable, supportable, documented, and timely cost estimates that are an acceptable basis for negotiation of fair and reasonable prices.[23] Although BSRAM did not produce costs for the BOM used for negotiations, BSRAM did forecast the types and quantities of spare parts that would be needed and directly impacted the cost estimate that was used in negotiating fair and reasonable prices.

~~(CUI)~~ In May 2022, Boeing switched its forecasting system from BSRAM to Service Parts Management. Unlike BSRAM, which was specific to the C-17 program, [redacted]. DCAA and DCMA officials stated that neither office has performed a review of Service Parts Management. Air Force contracting officials tasked the DCMA to approve or disapprove Boeing's business management systems. Even though a DCMA official stated that Service Parts Management is not part of the formal contractor business system reviews required by DFARS 252.242-7005, the DCMA needs to review Service Parts Management's forecasting accuracy. Therefore, the Director of the DCMA should review Service Parts Management to validate the accuracy of the forecasting demands for spare parts and if accuracy issues are identified during the review, require that corrective actions are taken.

(U) Air Force Contracting Officials Did Not Conduct Contract Surveillance to Identify Price Increases

(U) Air Force contracting officials did not conduct contract surveillance to identify price increases during contract execution. The material delivery orders issued under the GISP contract were awarded using a cost-reimbursement contract. Cost-reimbursement contracts provide little to no incentive for a contractor to limit costs.[24] The FAR states that the contracting officer is required to ensure adequate Government surveillance of the contractor during performance to provide reasonable assurance that efficient methods and effective cost controls are used.[25]

[22] (U) The data provided were from November 2019 to September 2020.

[23] (U) DFARS Part 252, "Solicitation Provisions and Contract Clauses," Subpart 252.2, "Text of Provisions and Clauses," Section 252.215-7002, "Cost Estimating System Requirements."

[24] (U) Office of the Under Secretary of Defense for Acquisition Technology and Logistics memorandum, "Guidance on Using Incentive and Other Contract Types," April 1, 2016.

[25] (U) FAR 16.301-3.

(U) However, Air Force contracting officials did not review spare part prices after negotiation to determine whether there were significant price increases for spare parts. For example, the BOM had a weighted average unit price of:

- ~~(CUI)~~ [redacted] for an aircraft slat seal; however, Boeing purchased [redacted] seals for a weighted average unit price of [redacted] each, a 271-percent increase;
- ~~(CUI)~~ [redacted] for a pressure transmitter; however, Boeing purchased [redacted] pressure transmitters for a weighted average unit price of [redacted] each, a 224-percent increase; and
- ~~(CUI)~~ [redacted] for a nonmetallic special shaped seal; however, Boeing purchased [redacted] nonmetallic special shaped seals for a weighted average unit price of [redacted] each, a 210-percent increase.

(U) The contracting officer did not review the prices Boeing paid for spare parts during the performance of the contract or request purchase documentation from Boeing to identify significant price increases. An Air Force official stated that during execution, they do not evaluate whether Boeing charges fair and reasonable prices. Furthermore, the Air Force official stated that the contracting officer determines fair and reasonable prices during proposal evaluation and negotiations that lead to the funding for the contract, and if the contractor stays within funding, the contracting officer does not further analyze the costs. In addition, the contracting officer stated that the Air Force does not require Boeing to provide purchase documentation during the execution of the contract. Therefore, the contracting officer did not receive purchase documentation to justify the increase, even in instances in which the cost of a spare part increased by nearly 300 percent over the negotiated price. Instead, the Air Force only required Boeing to provide purchase documentation for the spare parts during negotiations of the follow-on contract. Finally, Boeing is not required to notify the contracting officer of significant price increases during the contract execution.

(U) The contracting officer did not receive purchase documentation even when a spare part cost increased by nearly 300 percent over the negotiated price.

(U) Therefore, the Commander of the Air Force Life Cycle Management Center should direct the C-17 contracting officer to require Boeing to notify them of price increases of 25 percent or higher than the proposed price. In addition, the Commander of the Air Force Life Cycle Management Center should require that the C-17 contracting officer reviews spare parts prices throughout the execution of the C-17 PBL contract, determine whether price increases of 25 percent or above occurred, and obtain justification of the price increase from Boeing.

(U) The Contracting Officer Did Not Review Spare Part Invoices

(U) The contracting officer did not review spare part invoices for the GISP and G3 PBL contracts. The FAR states that cost-reimbursement contracts provide for payment of allowable incurred costs, to the extent prescribed in the contract, and the contractor submits invoices or vouchers that include reasonable detail for the Government to make payments to the contractor as work progresses.[26] For costs to be allowable, they must be reasonable. A cost is reasonable if, in its nature and amount, it does not exceed that which would be incurred by a prudent person in the conduct of a competitive business.[27]

(U) According to the FAR, unless an exception applies, the contracting officer retains any contract administration duties that the contracting officer does not delegate to the contract administration office.[28] The contracting officer did not delegate specific duties to the CORs to perform checks or detailed reviews of the invoices to determine whether prices were reasonable for spare parts. The CORs only checked to ensure that no special terms or conditions existed, verified the expenditure, and checked that funding was available before they approved the invoices. Therefore, the CORs did not review invoices to ensure that spare part prices were allowable and reasonable before payment.

(U) The contracting officer stated that they did not review invoices to determine whether prices paid for spare parts were allowable and reasonable before paying invoices for the GISP or G3 PBL contracts. The contracting officer stated that the first time they saw invoices for the GISP and G3 contracts was when we requested to see interim invoices during the audit. The DFARS states that the DCAA is the authorized representative of the contracting officer for conducting prepayment reviews of interim vouchers before payment.[29] The DCAA performs prepayment reviews that verify that the contract number, invoice number, and dollar amount on the invoice agree with the supporting documentation attached to the interim invoice. However, the DCAA's interim invoice review did not determine whether spare part prices were allowable and reasonable before payment.[30]

(U) The contracting officer stated that the first time they saw invoices for the GISP and G3 contracts was when we requested to see interim invoices during the audit.

[26] (U) FAR 16.301-1, "Description," and FAR 52.216-7, "Allowable Cost and Payment."

[27] (U) FAR 31.201-2 "Determining allowability;" FAR 31.201-3, "Determining reasonableness;" and FAR 31.201-4, "Determining allocability."

[28] (U) FAR 1.602-2, "Responsibilities" and FAR 42.302, "Contract administration functions." The exceptions are listed in FAR 42.302 (a)(5), (a)(9), (a)(11), and (a)(12).

[29] (U) DFARS 242.803.

[30] (U) The DCAA's review of spare part prices for allowability and reasonableness occurs during its annual incurred cost audits.

(U) Furthermore, the contracting officer stated that they relied on the DCAA's incurred cost audits of the contractor's costs reimbursed or claimed for the fiscal year to determine whether prices for spare parts were fair and reasonable. However, the incurred cost audits did not include all the spare parts on the GISP and G3 PBL contracts. Also, the DCAA's incurred cost audits include all of Boeing's unsettled flexibly priced contracts, from which the DCAA selected a sample to review based on risk factors. In addition, DCAA officials determined the materiality threshold based on risk factors that vary for each incurred cost audit, and for any questioned cost under the materiality threshold, the DCAA would not report these costs in their audit report. A DCAA official stated that for the FY 2018 incurred cost audit of the Boeing Global Services Integrated Logistics and Technology business unit contracts, the quantified materiality threshold and the adjusted materiality threshold for direct material costs were in the millions. The DCAA's preliminary reviews identified one spare part from our sample as a concern because of the significant price increase; however, the DCAA did not report this cost in its audit report because the cost did not meet the materiality threshold for material costs.

(U) Even though the contracting officer stated that they relied on the DCAA incurred cost audit, the contracting officer stated that if there was an issue with fair and reasonable prices, the DCAA most likely would not identify it during the DCAA incurred cost audit because DCAA officials would not question the costs if they matched what Boeing paid. As a result, the contracting officer cannot solely rely on DCAA incurred cost audits to determine whether prices for spare parts are allowable and reasonable. Therefore, the Commander of the Air Force Life Cycle Management Center should direct the C-17 contracting officer to review or delegate the review of invoices to determine whether spare parts prices are allowable and reasonable before payment.

(U) The DoD Did Not Issue Clear Requirements to Verify the Accuracy of the BOM or to Review Invoices

(U) The DoD did not issue clear requirements for validating the BOM or the forecasting system that generates the types and quantities of spare parts used in contract negotiation. Furthermore, the DoD did not issue clear requirements for the contracting officer to review invoices or vouchers to determine whether costs are allowable, allocable, and reasonable.

(U) The DoD Lacked Clear Requirements on Reviewing BOM for Completeness

(U) The Principal Director of Defense Pricing, Contracting, and Acquisition Policy is responsible for pricing and contracting policy matters across the DoD and executes statute, executive order, and policy through the timely update of the FAR and DFARS. The FAR states that the contracting officer should request a technical analysis on the types and quantities of materials (spare parts) to determine the need for and reasonableness of the proposed resources. At a minimum, the technical analysis should examine the types and quantities of material (spare parts) proposed.[31] However, the FAR does not specifically require a technical analysis to be performed on the BOM or the forecasting system that generates the types and quantities of spare parts used for negotiations.[32] During the audit, we determined that the GISP BOM did not include 53.5 percent of the spare parts purchased for the GISP contract. Because these spare parts were not included on the BOM, the Air Force did not review them for fair and reasonable prices. The contracting officer stated that they were unaware of any requirements for analyzing the accuracy of the BOM. Without developing controls to ensure that the contracting officer is including all spare parts in their review for fair and reasonable prices, the C-17 Globemaster III Division is at risk of paying unreasonable prices for spare parts, and potentially will continue to miss more than 50 percent of spare parts that may be purchased after contract negotiations.

(U) Without developing controls, the C-17 Globemaster III Division is at risk of paying unreasonable prices.

(U) Furthermore, two other DoD OIG reports on the B-52 Stratofortress and P-8A Poseidon identified that the Air Force and Navy did not have complete BOMs or lists of spare parts. The lack of complete BOMs led to officials for the B-52 Stratofortress and P-8A Poseidon programs not being able to monitor diminishing manufacturing sources and material shortage issues or being able to prioritize needed spare parts, and caused maintenance delays.[33] Given that this is a systemic issue and the FAR does not specifically require technical evaluation of the BOM, the Principal Director of Defense Pricing, Contracting, and Acquisition Policy should instruct the Defense Acquisition Regulations Council to initiate

[31] (U) FAR 15.404-1(e).

[32] (U) While the FAR does not require a BOM, FAR 15.408, Table 15-2, Section II, paragraph A requires a consolidated price summary of individual material quantities being proposed and the basis for pricing. This consolidated price summary is often referred to as a BOM.

[33] (U) Report No. DODIG-2024-029, "Audit of B-52 Diminishing Manufacturing Sources and Material Shortages," November 28, 2023; and Report No. DODIG-2021-083, "Evaluation of the Readiness of the U.S. Navy's P-8A Poseidon Aircraft to Meet the U.S. European Command's Anti-Submarine Warfare Requirements," May 19, 2021.

(U) a change to FAR 15.404-1(e) to require the contracting officer to request a technical analysis on the BOM or the forecasting system that generated the types and quantities of materials used for proposals.

(U) The DoD Did Not Have Clear Requirements for Contracting Officers to Review Invoices or Vouchers

(U) The DoD did not issue clear requirements for contracting officers to review or delegate the review of invoices or vouchers to determine whether costs are allowable, allocable, and reasonable. The FAR states that cost-reimbursement contracts provide for payment of allowable incurred costs, to the extent prescribed in the contract, and the contractor submits invoices or vouchers that include reasonable detail for the Government to make payments to the contractor.[34] For costs to be allowable, they must be reasonable. Costs are reasonable, if in their nature and amount, they do not exceed that which would be incurred by a prudent person in the conduct of competitive business.[35]

(U) The FAR does not explicitly require the contracting officer to review invoices or vouchers to determine whether costs are allowable, allocable, and reasonable. However, because the FAR requires the contractor to provide details that an authorized representative of the contracting officer requires, the FAR implies that the contracting officer should review them. In addition, the FAR implies that the contracting officer would have to review invoices or vouchers to determine whether prices are allowable, allocable, and reasonable. Finally, the DFARS does not provide additional guidance for the contracting officers on reviewing invoices for allowable, allocable, and reasonable prices. Instead, the DFARS states that the DCAA is the authorized representative of the contracting officer for conducting prepayment reviews of vouchers before payment. However, the DCAA's prepayment reviews are not detailed reviews of vouchers to determine allowable and reasonable prices.

(U) The DoD OIG has previously reported that contracting officers are not reviewing invoices or vouchers.

- (U) In May 2018, the DoD OIG found that Army Contracting Command and DCAA officials did not adequately monitor 128 Logistics Civil Augmentation Program IV vouchers, valued at $2.4 billion, submitted from 2015 to 2017 for questionable and potentially unallowable costs. This occurred because DoD policy regarding voucher reviews did not clearly state what role contracting officials should have in reviewing vouchers or establish an expectation of how the contract administration office could augment DCAA voucher reviews. DoD policy established DCAA prepayment reviews as the sole method of voucher oversight

[34] (U) FAR 16.301-1 and FAR 52.216-7.
[35] (U) FAR 31.201-3.

(U) before payment; however, the DCAA's prepayment reviews are cursory and not sufficient for preventing reimbursement to the contractor for all potentially unallowable costs.[36]

- (U) In April 2023, the DoD OIG also found that the procuring contracting officer did not ensure that invoices for the Logistics Civil Augmentation Program V, valued at $1.6 billion, were reviewed before payment because the procuring contracting officer relied on the DCAA's prepayment reviews.[37]

(U) Because this is a systemic issue, the Principal Director of Defense Pricing, Contracting, and Acquisition Policy should instruct the Defense Acquisition Regulations Council to initiate a change to FAR 52.216-7 to clarify the expectation of the contracting officer in reviewing invoices to ensure that prices are allowable and reasonable before payment.

(U) The Air Force Overpaid and May Continue to Pay Unreasonable Prices for Spare Parts

~~(CUI)~~ The Air Force overpaid $992,856 for 12 spare parts on the GISP and G3 PBL contracts from FYs 2018 through 2022. Specifically, we determined that the Air Force overpaid for the spare parts by amounts ranging from [redacted] to [redacted]. Table 1 lists the 12 spare parts and the amounts the Air Force overpaid.

(U) Table 1. The C-17 Spare Parts for Which the Air Force Paid Unreasonable Prices

~~(CUI)~~ Part Number	Description	Boeing Purchase Contract Quantity[1]	Price Difference for Each Part[2]	Total Price Difference
17B1N5001-501	Vaneaxial Fan	[redacted]	[redacted]	$48,786.00
17P8D8705-503	Retaining Band	[redacted]	[redacted]	293,632.74
600500-5	Soap Dispenser	[redacted]	[redacted]	149,072.20
17B0E3001-1	Pressure Transmitter	[redacted]	[redacted]	142,091.04
17B6E3008-1	Recognition Aircraft Light	[redacted]	[redacted]	157,410.00
17P2C1262-7	Protective Tape	[redacted]	[redacted]	2,664.84
D4104-6	Protective Dust and Moisture Cap-Plug	[redacted]	[redacted]	20,566.08
9D0302-1	Gasket	[redacted]	[redacted]	45,560.32 ~~(CUI)~~

[36] (U) Report No. DODIG-2018-119, "DoD Oversight of Logistics Civil Augmentation Program in Afghanistan Invoice Review and Payment," May 11, 2018.

[37] (U) Report No. DODIG-2023-064, "Audit of Operation Allies Welcome Contract Oversight at DoD Installations-Logistics Civil Augmentation Program V Contract," April 18, 2023.

(U) Table 1. The C-17 Spare Parts for Which the Air Force Paid Unreasonable Prices (cont'd)

~~(CUI)~~ Part Number	Description	Boeing Purchase Contract Quantity[1]	Price Difference for Each Part[2]	Total Price Difference
17P2C1354-1	Protective Dust and Moisture Plug	[redacted]	[redacted]	2,337.60
17B8D8294-507	Self-Aligning Plain Bearing	[redacted]	[redacted]	5,468.00
17B9C3201-1	Fluid Filter Element	[redacted]	[redacted]	119,277.44
ANDV11632-1	Machine Screw	[redacted]	[redacted]	5,989.95
Total Cumulative Price Difference				**$992,856** ~~(CUI)~~

[1] (U) The Boeing purchase contract quantities represents the most recent purchase contract awarded by Boeing in FYs 2018-2022.

[2] (U) The price difference is between spare parts prices identified by the DCMA CIG and Boeing purchase contract prices.

(U) Source: The DoD OIG.

(U) Until the Air Force establishes controls to require contracting officials to review spare parts purchases throughout the execution of the contract, the Air Force will continue to overpay for spare parts for the remainder of the G3 PBL contract. Furthermore, if the Air Force continues to overpay for spare parts, it will result in less funding for spare parts, which may reduce the number of spare parts that Boeing can purchase on the contract. As a result, this could lead to a reduction in readiness and result in the C-17 not being able to accomplish its mission. The DFARS states that a voluntary refund is a payment or credit to the Government from a contractor or subcontractor that is not required by any contractual or other legal obligation.[38] If the contracting officer concludes that Boeing overcharged for the spare parts, the contracting officer can request a voluntary refund.[39] Therefore, the Commander of the Air Force Life Cycle Management Center should direct the C-17 contracting officer to assess and determine whether overpayments were made on the 12 spare parts we determined not to have fair and reasonable prices and implement available options to seek recovery, including voluntary refunds of at least $992,856, in accordance with DFARS 242.71. See Appendix D for the potential monetary benefits.

[38] (U) DFARS Subpart 242.71, "Voluntary Refunds."

[39] (U) DFARS Procedures, Guidance, and Information Subpart 242.71, "Voluntary Refunds."

(U) Recommendations, Management Comments, and Our Response

(U) Recommendation 1

(U) We recommend that the Commander of the Air Force Life Cycle Management Center:

a. (U) Direct the C-17 System Program Manager to develop controls to ensure the accuracy of Chief Financial Officer reports.

(U) Air Force Life Cycle Management Center Comments

(U) The Air Force Materiel Command (AFMC) Deputy Director of Staff, responding for the Commander of the Air Force Life Cycle Management Center, agreed with the recommendation. The Deputy Director stated that the report assumes the Chief Financial Officer reports delivered under the C-17 contracts equate to the Chief Financial Officer reports required under Government Accounting Principles and described in report DODIG-2024-014, which is not correct. The Deputy Director further stated that the report delivered under the C-17 contract is mainly a status report that the program office uses to see changes from month to month to maintain their aircraft and services received to ensure their supply levels are maintained. The C-17 Globemaster III Division plans to rely on the DCMA to execute a sampling each month as they review the invoices for their materials before they are processed for payment. The C-17 Program Management Office will work with the DCMA to develop controls to ensure the accuracy of payments. The C-17 Globemaster III Division expects to finalize the controls by February 2025.

(U) Our Response

(U) Comments from the AFMC Deputy Director of Staff did not address the specifics of the recommendation; therefore, the recommendation is unresolved. The GISP and G3 contracts data requirements for the Chief Financial Officer reports reference the performance work statement sections 4.2.6 and 3.3.1.c, respectively. Both sections state that the contractor must accomplish all actions to comply with the DoD Financial Improvement and Audit Remediation requirements. We acknowledge that the Deputy Director stated that the C-17 Program Management Office will work with the DCMA to develop controls to ensure the accuracy of payments; however, that does not address the recommendation to ensure that the Chief Financial Officer reports are accurate and meet DoD Financial Improvement and Audit Remediation requirements. Therefore, we request that the Commander of the Air Force Life Cycle Management Center reconsider their position on the recommendation and provide comments within 30 days of the final report.

b. (U) Direct the C-17 contracting officer to require Boeing to notify the contracting officer of price increases of 25 percent or higher than the proposed price.

(U) Air Force Life Cycle Management Center Comments

(U) The AFMC Deputy Director of Staff, responding for the Commander of the Air Force Life Cycle Management Center, agreed with the recommendation. The Deputy Director stated that the G3 contract will include a more robust contract clause, "Additional Subcontractor Information Sharing," which was negotiated and coordinated with Defense Pricing and Contracting.[40] The Air Force anticipates awarding the contract with the new contract clause on October 1, 2024.

(U) Our Response

(U) Comments from the AFMC Deputy Director of Staff partially addressed the specifics of the recommendation; therefore, the recommendation is unresolved. We acknowledge that the Deputy Director stated that the G3 contract will include a more robust contract clause, "Additional Subcontractor Information Sharing." However, the Air Force provided a draft contract clause, and it did not address how price increases of 25 percent or higher would be identified. In addition, the draft contract clause did not address how price increases would be shared with the Air Force. Therefore, we request that the Commander of the Air Force Life Cycle Management Center reconsider their position on the recommendation and provide comments within 30 days of the final report.

c. (U) Require that the C-17 contracting officer reviews spare parts prices throughout the execution of the C-17 performance-based logistics contract, determine whether price increases of 25 percent or above occurred, and obtain justification of the price increase from Boeing.

(U) Air Force Life Cycle Management Center Comments

(U) The AFMC Deputy Director of Staff, responding for the Commander of the Air Force Life Cycle Management Center, agreed with the recommendation. The Deputy Director stated that the G3 contract will include a more robust contract clause, "Additional Subcontractor Information Sharing," which was negotiated and coordinated with Defense Pricing, Contracting, and Acquisition Policy. The Air Force anticipates awarding the contract with the new contract clause on October 1, 2024.

[40] (U) Defense Pricing and Contracting is now known as Defense Pricing, Contracting, and Acquisition Policy.

(U) Our Response

(U) Comments from the AFMC Deputy Director of Staff did not address the specifics of the recommendation; therefore, the recommendation is unresolved. We acknowledge that the Deputy Director stated that the G3 contract will include a more robust contract clause, "Additional Subcontractor Information Sharing." However, incorporating a more robust contract clause does not address the recommendation for the contracting officer to review spare parts prices throughout the execution of the contract, determine whether price increases of 25 percent or above occurred, and obtain justification of the price increase from Boeing. Therefore, we request that the Commander of the Air Force Life Cycle Management Center reconsider their position on the recommendation and provide comments within 30 days of the final report.

d. (U) Direct that the C-17 contracting officer review or delegate the review of invoices to determine whether spare parts prices are allowable and reasonable before payment.

(U) Air Force Life Cycle Management Center Comments

(U) The AFMC Deputy Director of Staff, responding for the Commander of the Air Force Life Cycle Management Center, agreed with the recommendation. The Deputy Director stated that the G3 contract will include a more robust contract clause, "Additional Subcontractor Information Sharing," which was negotiated and coordinated with Defense Pricing, Contracting, and Acquisition Policy. The Air Force anticipates awarding the contract with the new contract clause on October 1, 2024.

(U) Our Response

(U) Comments from the AFMC Deputy Director of Staff did not address the specifics of the recommendation; therefore, the recommendation is unresolved. We acknowledge that the Deputy Director stated that the G3 contract will include a more robust contract clause, "Additional Subcontractor Information Sharing." However, incorporating a more robust contract clause does not address the recommendation for the contracting officer to review invoices to determine whether spare part prices are allowable and reasonable before payment. Therefore, we request that the Commander of the Air Force Life Cycle Management Center reconsider their position on the recommendation and provide comments within 30 days of the final report.

e. (U) Direct the C-17 contracting officer to assess and determine whether overpayments were made on the 12 spare parts we determined not to have fair and reasonable prices and implement available options to seek recovery, including voluntary refunds of at least $992,856, in accordance with Defense Federal Acquisition Regulation Supplement 242.71.

(U) Air Force Life Cycle Management Center Comments

(U) The AFMC Deputy Director of Staff, responding for the Commander of the Air Force Life Cycle Management Center, agreed with the recommendation. The Deputy Director stated that, in coordination with the Under Secretary of the Air Force for Acquisition, Commander of the AFMC, and Commander of the Air Force Life Cycle Management Center, the C-17 Program Management Office will assess whether overpayments were made on the 12 spare parts identified in the report. The assessment is expected to be completed by August 2025.

(U) Our Response

(U) Comments from the AFMC Deputy Director of Staff partially addressed the specifics of the recommendation. Although the Deputy Director stated that the C-17 Program Management Office would assess and determine whether overpayments were made on the 12 spare parts, the comments did not address whether they would seek recovery of overpayments if warranted. Therefore, the recommendation is unresolved. We request that the Commander of the Air Force Life Cycle Management Center reconsider their position on the recommendation and provide comments within 30 days of the final report.

(U) Recommendation 2

(U) We recommend that the Director of the Defense Contract Management Agency review Service Parts Management to validate the accuracy of the forecasting demands for spare parts and if accuracy issues are identified during the review, require that corrective actions are taken.

(U) Defense Contract Management Agency Comments

(U) The DCMA Deputy Director, responding for the DCMA Director, agreed with the recommendation and stated that the DCMA would initiate a review of the accuracy of Service Parts Management. The Deputy Director further stated that the DCMA will request the DCAA to evaluate Service Parts Management with the expectation for Boeing to provide the DCMA and DCAA a walkthrough of Service Parts Management and how it applies to proposals. The DCAA audit is expected to begin in January 2025 and be completed in July 2025. Once the audit is completed, the administrative contracting officer will address any findings and recommendations.

(U) Our Response

(U) Comments from the Deputy Director addressed all specifics of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation once we verify that the DCAA audit is completed and the administrative contracting officer addressed any findings and recommendations.

(U) Recommendation 3

(U) We recommend that the Principal Director of Defense Pricing, Contracting, and Acquisition Policy instruct the Defense Acquisition Regulations Council to initiate changes to the Federal Acquisition Regulation to clarify requirements for the contracting officer to:

a. (U) Require a technical analysis on the bill of materials or the forecasting system that generated the types and quantities of materials used for proposals in Federal Acquisition Regulation 15.404-1(e).

(U) Defense Pricing, Contracting, and Acquisition Policy Comments

(U) The Principal Director of Defense Pricing, Contracting, and Acquisition Policy partially agreed with the recommendation. The Principal Director stated that Defense Pricing, Contracting, and Acquisition Policy officials do not believe that a change to the FAR is necessary as FAR 15.404-1(e) already stipulates that the contracting officer should request a technical analysis of the proposed types and quantities of materials. The Principal Director agreed that the contracting officer should obtain a technical analysis of the forecasting system or model used to generate the types and quantities of materials used on major weapon system performance-based logistics acquisitions. Finally, the Principal Director stated that Defense Pricing, Contracting, and Acquisition Policy officials will evaluate whether current defense federal acquisition policy and guidance adequately addresses this requirement and will make updates as necessary.

(U) Our Response

(U) Comments from the Principal Director did not address the specifics of the recommendation; therefore, the recommendation is unresolved. We disagree that the FAR already requires contracting officers to request a technical analysis. During the audit, Defense Pricing, Contracting, and Acquisition Policy officials supported changing FAR 15.404-1(e) from "should" request a technical analysis to "shall," which would require that the contracting officer request a technical analysis. In addition, Air Force contracting officials were not able to locate the technical evaluation or any support of a completed technical evaluation for the

(U) GISP contract. We acknowledge that the Principal Director stated that Defense Pricing, Contracting, and Acquisition Policy officials will evaluate whether current defense federal acquisition policy adequately addresses requesting a technical analysis; however, the DFARS is silent on the issue. Therefore, we request that the Principal Director reconsider their position on the recommendation and provide comments within 30 days of the final report.

b. (U) Review or delegate the review of invoices to ensure that prices are allowable and reasonable before payment in Federal Acquisition Regulation 52.216-7.

(U) Defense Pricing, Contracting, and Acquisition Policy Comments

(U) The Principal Director of Defense Pricing, Contracting, and Acquisition Policy partially agreed with the recommendation. The Principal Director stated that Defense Pricing, Contracting, and Acquisition Policy officials do not believe that a change to the FAR is necessary or supportable. Furthermore, the Principal Director stated that FAR 52.216-7(g) already stipulates that contracting offices can request audits of contractor invoices or vouchers. The Principal Director stated that Defense Pricing, Contracting, and Acquisition Policy officials will work with relevant stakeholders, such as the DCMA and DCAA, to evaluate whether current defense federal acquisition policy and guidance pertaining to invoice reviews should be updated in this area. In addition, the Principal Director stated that any change must also support compliance with prompt payment of contractors; therefore, it must be carefully considered and constructed.

(U) Our Response

(U) Comments from the Principal Director did not address the specifics of the recommendation; therefore, the recommendation is unresolved. The Principal Director did not believe that a change to the FAR was necessary; however, we found that neither the contracting officer nor DCMA or DCAA officials were reviewing the C-17 invoices for material costs. The DCAA's prepayment reviews are not detailed reviews of vouchers to determine allowable and reasonable prices. In addition, the contracting officer relied on the DCAA's incurred cost audits; however, the DCAA's incurred cost audits reviewed a sample of Boeing's unsettled flexibly priced contracts and had materiality thresholds in the millions. Therefore, the DCAA's reports did not include questioned costs below the materiality threshold.

(U) Furthermore, as discussed in the report, Army Contracting Command and DCAA officials did not adequately monitor Logistics Civil Augmentation Program IV vouchers, and the procuring contracting officer did not review invoices for the Logistics Civil Augmentation Program V. We acknowledge that the Principal Director stated that Defense Pricing, Contracting, and Acquisition Policy officials will evaluate whether current defense federal acquisition policy adequately addresses invoice reviews; however, the DFARS is silent on the issue. Therefore, we request that the Principal Director reconsider their position on the recommendation and provide comments within 30 days of the final report.

(U) Appendix A

(U) Scope and Methodology

(U) We conducted this performance audit from June 2022 through June 2024 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.

(U) This report was reviewed by the DoD Components associated with this oversight project to identify whether any of their reported information, including legacy FOUO information, should be safeguarded and marked in accordance with the DoD CUI Program. In preparing and marking this report, we considered any comments submitted by the DoD Components about the CUI treatment of their information. If the DoD Components failed to provide any or sufficient comments about the CUI treatment of their information, we marked the report based on our assessment of the available information.

(U) Boeing provided the unit prices identified in this report at the request of the DoD OIG. Boeing provided the unit prices with the following restrictive legend:

(U) "Information contained herein is Boeing or supplier confidential, proprietary or trade secret (Confidential) information that is not customarily or actually released to the public and is provided to the U.S. Government for its exclusive use in regulatory oversight. It is provided with the expectation and understanding that it will be treated as Confidential."

(U) In related communications, Boeing informed us that both it and its suppliers go to great efforts to safeguard the unit prices. As a result, Boeing asserted that the unit prices are subject to the protections of Federal law and should be treated as CUI when in the possession of the Government.

(U) We asked Boeing if it consented or objected to the OIG issuing the information, unredacted but properly marked CUI, in the copy of the report the OIG submits to congressional committees. In response, Boeing objected to the OIG issuing the information to the public, as well as to the congressional committees, on the basis that the information is confidential, proprietary, or trade secret.

(U) We considered Boeing's comments regarding the protection of its unit prices. Based on Boeing's statements concerning the confidential nature and treatment of the unit prices, the voluntary means by which Boeing furnished the unit prices to the OIG, and its insistence that the prices be withheld from release to Congress and the public, we have marked the unit prices as CUI and have redacted them from the reports released to Congress and the public.

(U) Criteria

(U) We reviewed Federal and DoD criteria to determine whether Air Force contracting officials purchased spare parts for C-17 military transport aircraft at fair and reasonable prices in accordance with applicable policies. Specifically, we reviewed the DoD PBL Guidebook, DoD COR Guidebook, and the following sections of the FAR and DFARS.

- (U) FAR Subpart 1.6, "Career Development, Contracting Authority, and Responsibilities"
- (U) FAR Subpart 15.4, "Contract Pricing"
- (U) FAR Part 16, "Types of Contracts"
- (U) FAR Part 31, "Contract Cost Principles and Procedures"
- (U) FAR Part 52, "Solicitation Provisions and Contract Clauses"
- (U) DFARS Subpart 215.4, "Contract Pricing"
- (U) DFARS Subpart 242.8, "Disallowance of Costs"
- (U) DFARS Subpart 242.71, "Voluntary Refunds"

(U) Interviews and Documentation

(U) To determine whether the Air Force reviewed fair and reasonable prices for the GISP and G3 contracts, we interviewed Air Force contracting officials from the Air Force Life Cycle Management Center and reviewed contract documentation, including the contracts, performance work statements, final price negotiation memorandums, and the NPF reviews on price reasonableness. To determine the Air Force's process for reviewing and approving GISP and G3 contract invoices, we interviewed contracting officers, CORs, and DCAA auditors. In addition, we reviewed some of the invoices the DCAA auditors and CORs reviewed before payment occurred. To determine fair and reasonable prices, we reviewed DCMA CIG market research reports and Boeing documentation, including purchase order history; purchase contracts; procurement documentation, including non-competitive source documentation; best value evaluations; and price analysis. We also interviewed Boeing personnel to understand Boeing processes for awarding subcontracts. Boeing personnel reviewed and commented on relevant portions of the draft report, and we considered Boeing's comments when preparing the final report.

(U) Audit Sample

(U) We focused our sample on spare parts purchased by Boeing from FYs 2018 through 2022, including four delivery orders from the GISP contract and one delivery order from the G3 contract.[41] The Air Force provided a universe of 6,194 spare parts, valued at $490.7 million, purchased by Boeing for the GISP contract from FYs 2018 through 2021. To determine whether Air Force contracting officials paid fair and reasonable prices for the spare parts, we initially selected a statistical sample of 57 spare parts; however, the Air Force could not provide us the technical drawings for 11 spare parts. Therefore, we excluded those 11 spare parts from our sample, which reduced our sample to a nonstatistical sample of 46, valued at $31.3 million. Our nonstatistical sample included the soap dispenser from the allegation to the DoD Hotline. The Air Force did not provide complete spare parts data for FY 2022 because the first year of performance for the G3 contract was ongoing at the time. Although the sample was selected using the spare parts purchased on the GISP contract, the Air Force also purchased 17 of the 46 spare parts in our sample on the G3 contract. Table 2 lists the nonstatistical sample of 46 spare parts.

(U) Table 2. Nonstatistical Sample of 46 Spare Parts Selected from GISP Delivery Orders

(U) Part Number	Nomenclature
8939405-0006	Data Entry Keyboard
1131000-521	Aircraft Toilet
1132019-507	Toilet Door
17P2C1053-1	Plain Round Nut
1132014-503	Aircraft Toilet
17P1B2630-501	Latrine Tank Base Pan
D4104-6	Protective Dust and Moisture Cap-Plug
17P2C1354-1	Protective Dust and Moisture Plug*
ANDV11632-1	Machine Screw*
600500-5	Soap Dispenser
17P8D9207-59	Dust And Moisture Seal Boot*
	(U)

[41] (U) For the GISP contract FA8526-12-D-0001, we reviewed delivery orders FA8526-18-F-0002, FA8526-19-F-0002, FA8526-20-F-0002, and FA8526-21-F-0002. For the G3 contract FA8526-21-D-0001, we reviewed delivery order FA8526-22-F-0002.

(U) Table 2. Nonstatistical Sample of 46 Spare Parts Selected from GISP Delivery Orders (cont'd)

(U) Part Number	Nomenclature
NBA6043-701	Aircraft Window Panel
17B2C1013-505	Carbon Multiple Disk Brake
17P2C1440-509	Shimmy Damper*
17P8D8615-501	Aircraft Structural Component Support
17B9C3201-1	Fluid Filter Element*
9D0302-1	Gasket*
17B2C1014-503	Ambient Temperature Sensor*
4D0039-1	Turnbuckle*
17P6W5350-523	Aircraft Fairing*
17B6E3004-1	Light Lens*
5D0635-501	Cable Assembly*
17B6E3008-1	Recognition Aircraft Light*
ABA7854-501	Sliding Panel Assembly*
17B0E3001-1	Pressure Transmitter
17P8D8525-503	Ring
17P2C1037-536	Bogie Beam Assembly
17B8E7001-501	Alternating Current Generator*
3D0163-4-2	Machine Screw*
17B1N5001-501	Vaneaxial Fan
17P8D8566-505	Nonmetallic Special Shaped Seal*
17P6W5351-503	Aircraft Structural Panel
17P8D8705-503	Retaining Band
17P2A6038-505	Seal Assembly
7D0205D02	Straight Adapter*
17P8E4014-502	Wiring Harness
17P2A3635-501	Mounting Bracket
17P2C1433-2	Manifold Assembly
17B1N4082-501	Air Conditioning Duct Assembly
3D0271A3-140	Nut and Bolt Retainer
17P6W7586-501	Aircraft Slat Seal **(U)**

(U) Table 2. Nonstatistical Sample of 46 Spare Parts Selected from GISP Delivery Orders (cont'd)

(U) Part Number	Nomenclature
5193-1	Floor Grate
7D0159M450T-1G	O-Ring
17B8D8294-507	Self-Aligning Plain Bearing
17P2C1262-7	Protective Tape
17P9B1411-700	Insulation Blanket Assembly (U)

*(U) Spare parts purchased from both GISP and G3 delivery orders.
(U) Source: The Air Force.

(U) DCMA Commercial Item Group Market Research

(U) The DCMA CIG aided the audit and performed market research on the spare parts within our sample of C-17 aircraft spare parts. The DCMA CIG performed market research to identify commercially similar parts and reached out to vendors to obtain supplier quotes for the spare parts. We reviewed the DCMA CIG market research reports and compared the DCMA CIG market research spare parts prices to the spare parts prices Boeing paid to its suppliers to determine whether the Air Force over-reimbursed Boeing for spare parts.

(U) Spare Parts Purchased Compared to Bill of Material

(U) To determine whether the BOM was accurate for the GISP contract, we compared the spare parts purchased from FYs 2018 through 2021 to the proposed spare parts for the same period. For the analysis, we compared the Air Force-provided list of 6,194 spare parts to the material listed in the GISP BOM.

(U) Internal Control Assessment and Compliance

(U) We assessed internal controls and compliance with laws and regulations necessary to satisfy the audit objective. We assessed the internal controls and underlying principles related to the Air Force's processes for contract oversight, cost allowability, and invoice review. Specifically, we assessed the control activities and implementation of the control activities. However, because our review was limited to these internal control components and underlying principles, it may not have disclosed all internal control deficiencies that may have existed at the time of this audit.

(U) Use of Computer-Processed Data

(U) We relied on computer-processed data from the Air Force to obtain a universe of spare parts purchased from FYs 2018 through 2021.[42] The Air Force pulled the spare parts data from Chief Financial Officer reports. To assess the reliability of the data, we obtained and reviewed the Chief Financial Officer reports from FYs 2018 to 2022, and we compared the quantities and prices listed in the reports to the purchase contracts from the same period. In addition, we interviewed Air Force and Boeing officials to determine the methodology for creating the reports and to determine how the Air Force is using the data from the reports. We determined that there were inconsistencies between the Chief Financial Officer reports and the purchase contract data. Boeing officials stated that the methodology for determining the Chief Financial Officer reports changed in FY 2021 and would not match purchase contract data. However, we determined that the data were sufficiently reliable for the purposes of obtaining a universe. The Air Force is aware of the inconsistencies in the Chief Financial Officer reports.

(U) Use of Technical Assistance

(U) We used the DCMA to conduct market research and obtain vendor quotes for the 46 spare parts in our sample. In addition, we used assistance from the DoD OIG Quantitative Methods Division to develop a nonstatistical sample of 46 spare parts from the list of parts obtained from the Air Force. Furthermore, we coordinated with the DoD OIG Research and Engineering Division to review the technical specifications of the spare parts in our sample and determine whether the commercially available spare parts the DCMA identified were comparable to the spare parts in our sample.

(U) Prior Coverage

(U) During the last 5 years, the DoD Office of Inspector General (DoD OIG), and Army Audit Agency issued four reports discussing fair and reasonable pricing and inadequate invoice reviews.

(U) Unrestricted DoD OIG reports can be accessed at http://www.dodig.mil/reports.html/. Unrestricted Army Audit Agency reports can be accessed from .mil and gao.gov domains at https://www.army.mil/aaa.

[42] (U) In addition, the Air Force provided three quarters of spare parts acquired in FY 2022.

(U) DoD OIG

(U) Report No. DODIG-2023-064, "Audit of Operation Allies Welcome Contract Oversight at DoD Installations–Logistics Civil Augmentation Program V Contract," April 18, 2023

> (U) The DoD OIG found that Army contracting personnel provided adequate oversight of contractor performance for dining, medical, and facilities sustainment services supporting the relocation of Afghan evacuees but did not review invoices before payment to verify contractor-reported costs.

(U) Report No. DODIG-2022-137, "Audit of the Military Services' Award of Cost-Reimbursement Contracts," September 26, 2022

> (U) The DoD OIG found that Military Service contracting officials did not consistently award cost-reimbursement contracts in accordance with Federal and DoD regulations and guidance. Specifically, contracting officials consistently complied with cost-reimbursement contract requirements when awarding 38 of 83 cost-reimbursement contracts, valued at $20.54 billion. However, contracting officials did not consistently award the remaining 45 cost-reimbursement contracts, valued at $6.94 billion, in accordance with Federal and DoD regulations and guidance.

(U) Report No. DODIG-2022-043, "Audit of the Business Model for TransDigm Group Inc. and Its Impact on Department of Defense Spare Parts Pricing," December 13, 2021

> (U) The DoD OIG found that contracting officers used price analysis methods authorized by the FAR and DFARS, including historical price comparisons and competition, to determine whether prices were fair and reasonable for the 107 spare parts reviewed. Price analysis methods can be effective in determining fair and reasonable prices; however, in this sole-source market-based pricing environment, without competition, the methods were not effective for identifying excessive pricing. This occurred because 10 U.S.C. § 2306a, Federal, and DoD policies do not compel contractors to provide uncertified cost data for contracts below the Truth in Negotiations Act threshold when requested. Therefore, contracting officers were unable to use cost analysis to determine fair and reasonable prices for sole-source spare parts that the DLA bought in small quantities at low dollar values and instead used other price analysis methods required by the FAR and DFARS, including historical price comparisons. In addition, 10 U.S.C. § 2306a, Federal, and DoD policies do not require contracting officers to use cost analysis when the DoD is making fair and reasonable price determinations for sole-source spare part contracts below the Truth in Negotiations Act threshold. However,

(U) the audit team was able to obtain uncertified cost data from TransDigm for 152 of the 153 contracts in the sample. By using the uncertified cost data, which is one of the most reliable sources of information to perform cost analysis, the audit found that TransDigm earned excess profit of at least $20.8 million on 105 spare parts from 150 contracts.

(U) Army

(U) Report No. A-2021-0071-BOZ, "Design and Oversight of Performance-Based Logistics Contracts," August 17, 2021

(U) The Army found that the PBL contracts generally adhered to the DoD's PBL guidance. The PBL Guidebook identifies specific tenets tied to successful PBL support arrangements. Of the seven PBL contracts reviewed, three (two sole-source and one competed) strongly adhered to the PBL tenets. These contracts incorporated well-defined outcomes, favorable incentive arrangements, and measurable performance metrics supported by sufficient oversight and monitoring. Four (sole-source) did not always adhere to the PBL tenets. While the four contracts had defined requirements outcomes and measurable performance metrics supported by sufficient oversight, they did not consider incentive fee contract types to mitigate increased risks and uncertainty associated with noncompetitive pricing. For each contract, the historical contract price variance exceeded 4 percent. This should have warranted consideration of a fixed-price incentive fee as the follow-on contract type. As a result, Army officials may have missed opportunities to mitigate pricing risk and improve performance outcomes.

(U) Appendix B

(U) DoD Hotline Allegation

(U) Background

~~(CUI)~~ Developed by Boeing, the C-17 has been in service for 30 years. On October 1, 2011, the C-17 Globemaster III Division awarded the GISP sole-source acquisition contract to Boeing. The contract was a 10-year, $11.8 billion, indefinite-delivery indefinite-quantity, PBL contract. Using the GISP contract, the Air Force awarded four delivery orders for spare parts, valued at $1.7 billion. In 2015, Boeing purchased 44 soap dispensers at a unit price of [redacted], and in 2018 Boeing purchased [redacted] soap dispensers at a unit price of [redacted]. Boeing has not purchased soap dispensers for the C-17 since 2018.

(U) Allegation

~~(CUI)~~ Boeing charged the Air Force [redacted] for a lavatory soap dispenser used on the C-17, when a commercial off-the-shelf equivalent soap dispenser costs [redacted] to [redacted].[43]

(U) Results

~~(CUI)~~ We substantiated the allegation. The Air Force did not pay fair and reasonable prices for [redacted] soap dispensers purchased through the GISP contract. Boeing purchased [redacted] soap dispensers for the C-17 at a unit price of [redacted], and the Air Force reimbursed Boeing for the spare parts purchased. The DCMA CIG identified a commercially similar soap dispenser with a unit price of [redacted]. Therefore, the Air Force overpaid $149,072 for [redacted] soap dispensers.

[43] (U) The delivery order that contained the 2015 purchase of the 44 lavatory soap dispensers cited in the allegation was outside the scope of the audit. Therefore, we used the purchase price from the 2018 delivery order, included in our review, to substantiate the allegation.

(U) Appendix C

(U) C-17 Spare Parts Price Comparison

~~(CUI)~~ Part Number	Description	DCMA CIG Market Research Unit Price	Boeing Purchase Contract Unit Price[1]	Price Difference	Price Difference (Percent)	Total Boeing Purchase Contract Values[2]
17B1N5001-501	Vaneaxial Fan	[redacted][3]	[redacted]	[redacted]	1,425	$52,210.00
17P8D8705-503	Retaining Band	[redacted]	[redacted]	[redacted]	833	328,876.74
600500-5[4]	Soap Dispenser	[redacted]	[redacted]	[redacted]	7,943	150,949.00
17B0E3001-1[4]	Pressure Transmitter	[redacted]	[redacted]	[redacted]	3,556	423,243.84
17B6E3008-1	Recognition Aircraft Light	[redacted]	[redacted]	[redacted]	175	1,040,776.00
17P2C1262-7[4]	Protective Tape	[redacted]	[redacted]	[redacted]	201	55,312.44
D4104-6[4]	Protective Dust and Moisture Cap-Plug	[redacted]	[redacted]	[redacted]	312	27,167.25
9D0302-1[4]	Gasket	[redacted]	[redacted]	[redacted]	743	362,930.48
17P2C1354-1	Protective Dust and Moisture Plug	[redacted]	[redacted]	[redacted]	5,513	24,600.54
17B8D8294-507	Self-Aligning Plain Bearing	[redacted]	[redacted]	[redacted]	73	23,001.34
17B9C3201-1[4]	Fluid Filter Element	[redacted]	[redacted]	[redacted]	68	1,769,055.30
ANDV11632-1[4]	Machine Screw	[redacted]	[redacted]	[redacted]	10,319	2,797.16 ~~(CUI)~~

[1] (U) The Boeing purchase contract unit price represents the most recent purchase contract awarded by Boeing in FYs 2018 through 2022.

[2] (U) Boeing purchase contract values represent purchase contracts awarded by Boeing in FYs 2018 through 2022.

[3] (U) The DCMA CIG market research unit price for part 17B1N5001-501, Vaneaxial Fan, represents a supplier-quoted unit price for the same spare part. The remaining DCMA CIG market research unit prices are based on commercially similar item unit prices.

[4] (U) For some spare parts, the DCMA CIG identified multiple commercially similar items. When that occurred, we included the commercially similar spare part with the highest unit cost.

(U) Source: The DoD OIG.

(U) Appendix D

(U) Potential Monetary Benefits

(U) Table 3 identifies the questioned costs for five delivery orders. The DoD Audit Manual defines a questioned cost as a cost questioned because of a finding that, at the time of the audit, such cost is not supported by adequate documentation or a finding that the expenditure of funds for the intended purpose is unnecessary or unreasonable.[44]

(U) Table 3. Potential Monetary Benefits

(U) Recommendation	Type of Benefit	Amount of Benefit	Account
2.e	Questioned Costs - Recoverable. Request voluntary refund from contractor.	$992,856 in questioned costs related to overpayments on spare parts.	Delivery orders FA8526-18-F-0002, FA8526-19-F-0002, FA8526-20-F-0002, FA8526-21-F-0002, and FA8526-22-F-0002. **(U)**

(U) Source: The DoD OIG.

[44] (U) DoD Manual 7600.07, "DoD Audit Manual," August 3, 2015.

(U) Management Comments

(U) Defense Pricing, Contracting, and Acquisition Policy

OFFICE OF THE UNDER SECRETARY OF DEFENSE
3000 DEFENSE PENTAGON
WASHINGTON, DC 20301-3000

ACQUISITION
AND SUSTAINMENT

MEMORANDUM FOR PROGRAM DIRECTOR FOR AUDIT, ACQUISITION, CONTRACTING AND SUSTAINMENT, OFFICE OF THE INSPECTOR GENERAL

SUBJECT: Response to the Department of Defense Inspector General's Draft Audit of C-17 Spare Parts Pricing (Project No. D2022-D00AH-0142.000)

As requested, I am providing a response to recommendation 3a and 3b of the subject report. The completed "Request for Security Marking Review" form is attached. While no Controlled Unclassified Information (CUI) information is identified by Defense Pricing, Contracting, and Acquisition Policy (DPCAP), the C-17 program office will need to verify the elements specific to their program as DPCAP would not have insight into the classification of this information.

The recommendations from the draft report are restated below and our responses follow each of the individual recommendations:

Recommendation 3: We recommend that the Principal Director of Defense Pricing and Contracting [now Defense Pricing, Contracting, and Acquisition Policy (DPCAP)] instruct the Defense Acquisition Regulations Council to initiate changes to the Federal Acquisition Regulation to clarify requirements for the contracting officer to:

3a. Require a technical analysis on the bill of materials or the forecasting system that generated the types and quantities of materials used for proposals in Federal Acquisition Regulation (FAR) 15.404-1(e).

Response: Partially Concur: DPCAP does not believe a change to the FAR is necessary as FAR 15.404-1(e) already stipulates contracting officers should request a technical analysis of the proposed types and quantities of materials (bill of materials). DPCAP concurs that contracting officers should obtain a technical analysis of the forecasting system or model used to generate the types and quantities of materials, which are predominantly used on major weapon system performance-based logistics acquisitions. DPCAP will evaluate whether current defense federal acquisition policy and guidance adequately addresses this requirement and will make updates as necessary.

3b. Review or delegate the review of invoices to ensure that prices are allowable and reasonable before payment in Federal Acquisition Regulation 52.216-7.

Response: Partially Concur: DPCAP does not believe that a change to the FAR is necessary or supportable. FAR 52.216-7 (g) already stipulates that contracting offices can request audits of contractor invoices or vouchers. DPCAP will work with relevant stakeholders, such as DCMA and DCAA, to evaluate whether current defense federal acquisition policy and guidance pertaining to invoice reviews should be updated in this area. However, any change must also support compliance with prompt payment of contractors and must, therefore, be carefully considered and constructed.

(U) Defense Pricing, Contracting, and Acquisition Policy (cont'd)

My point of contact for this matter is [redacted]

Sincerely,

TENAGLIA.JOHN.M. [redacted] Digitally signed by TENAGLIA.JOHN.M [redacted]

John M. Tenaglia
Principal Director,
Defense Pricing, Contracting, and
Acquisition Policy

Attachment:
As stated

(U) Defense Contract Management Agency

DEFENSE CONTRACT MANAGEMENT AGENCY
3901 ADAMS AVENUE, BUILDING 10500
FORT GREGG-ADAMS, VA 23801-1809

MEMORANDUM FOR DEPARTMENT OF DEFENSE, INSPECTOR GENERAL, QUALITY ASSURANCE AND FOLLOW-UP DIVISION

SUBJECT: DCMA Response for DODIG "Audit of C-17 Spare Parts Pricing" (Project D2022-D000AH-0142.000)

DCMA has reviewed the subject report and concurs with recommendation #2. More information is included in the TAB A attachment.

The point of contact for this response is [redacted]

EBRIGHT.SONY A.I. [redacted] Digitally signed by EBRIGHT.SONYA.I [redacted]

Sonya I.Ebright
Deputy Director

Attachment:
TAB A. DCMA Response

(U) Defense Contract Management Agency (cont'd)

DoDIG Audit of the C-17 Spare Parts Pricing" (Project No. D2022-D000AH-0142.000)

DoDIG Recommendation 2: **(U) We recommend that the Director of the Defense Contract Management Agency review Service Parts Management to validate the accuracy of the forecasting demands for spare parts and if accuracy issues are identified during the review, require that corrective actions are taken.**

DCMA Response: DCMA concurs with Recommendation 2, and will initiate a review of the accuracy for the Service Parts Management system.

DCAA is responsible to conduct audits of a contractor's Material Management and Accounting System, Estimating System, & Accounting System. DCMA will send a request to DCAA no later than July 31, 2024 to evaluate the SPM as an element of the applicable system. The expectation is that Boeing would provide the Government team, (DCMA/DCAA) with a walk-through of the Service Parts Management Sytem and how it applies to proposals. DCMA would then anticipate for DCAA to begin its audit in January 2025, with a report anticipated by July 31, 2025. Once DCMA receives the audit, the administrative contracting officer will address any findings and/or recommendations that DCAA identifies in the audit.

Supporting documentation: None

1

(U) Air Force Life Cycle Management Center

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE MATERIEL COMMAND
WRIGHT-PATTERSON AIR FORCE BASE OHIO

MEMORANDUM FOR DEPARTMENT OF DEFENSE INSPECTOR GENERAL

FROM: AFMC/DS OBO AFMC/CA
4375 Chidlaw Road
Wright-Patterson AFB OH 45433-5001

SUBJECT: Department of the Air Force Response to DoD Office of Inspector General Draft Report, "Audit of the C-17 Spare Parts Pricing" (Project No. D2022-D000AH-0142)

1. This is the Department of the Air Force response to the DoDIG Draft Report, "Audit of the C-17 Spare Parts Pricing" (Project No. D2022-D000AH-0142). The DAF partially concurs with the report as written and welcomes the opportunity to discuss the report and recommendations with the DoDIG.

2. The SAF/AQ in coordination with AFLCMC will correct issues identified in this report, and develop and implement a corrective action plan outlined in the following recommendations:

RECOMMENDATION 1.a: The DODIG recommends that the Commander of the Air Force Life Cycle Management Center to direct the C-17 System Program Manager to develop controls to ensure the accuracy of Chief Financial Officer reports.

DAF RESPONSE: The Air Force concurs with intent for this recommendation. This IG report assumes the CFO reports delivered under the C-17 Contracting equate to the CFO reports required under Government Accounting Principles and described in DODIG-2024-014; which is not correct. The report delivered under the C-17 contract is mainly a status report that our program office utilizes to see changes from month to month to maintain our aircraft and services received to ensure our supply levels are maintained. The recommendation from the program office is to rely upon DCMA to execute a sampling each month as they review the invoices for our materials before they are processed for payment. C-17 PMO will work with DCMA to develop controls to ensure the accuracy of payments. Estimated ECD: February 2025.

RECOMMENDATION 1.b: The DODIG recommends that the Commander of the Air Force Life Cycle Management Center to direct the C-17 contracting officer to require Boeing to notify the contracting officer of price increases 25 percent or above the proposed price.

DAF RESPONE: The Air Force concurs with intent for this recommendation. The Globemaster 3 (G3) contract, will include a more robust H009 clause, *Additional Subcontractor Information Sharing*, which has been negotiated and coordinated with Defense Pricing and Contracting (DPC). Clause H009 will be effective upon contract award, anticipated 1 Oct 2024.

RECOMMENDATION 1.c: The DODIG recommends that the Commander of the Air Force Life Cycle Management Center require that the C-17 contracting officer reviews spare parts prices throughout the execution of the C-17 performance-based logistics contract, determine whether price increases of 25 percent or above occurred, and request justification of the price increase from Boeing.

(U) Air Force Life Cycle Management Center (cont'd)

2

DAF RESPONSE: The Air Force concurs with intent for this recommendation. The Globemaster 3 (G3) contract, will include a more robust H009 clause, *Additional Subcontractor Information Sharing*, which has been negotiated and coordinated with Defense Pricing and Contracting (DPC). Clause H009 will be effective upon contract award, anticipated 1 Oct 2024.

RECOMMENDATION 1.d: The DODIG recommends that the Commander of the Air Force Life Cycle Management Center to direct the C-17 contracting officer review or delegate the review of invoices to determine whether spare parts prices are allowable and reasonable before payment.

DAF RESPONSE: The Air Force concurs with intent for this recommendation. The Globemaster 3 (G3) contract, will include a more robust H009 clause, *Additional Subcontractor Information Sharing*, which has been negotiated and coordinated with Defense Pricing and Contracting (DPC). Clause H009 will be effective upon contract award, anticipated 1 Oct 2024.

RECOMMENDATION 1.e: The DODIG recommends that the Commander of the Air Force Life Cycle Management Center direct the C-17 contracting officer to assess and determine whether overpayments were made on the 12 spare parts we determined not to have fair and reasonable prices and implement available options to seek recovery, including voluntary refunds of at least $902,946, in accordance with Defense Federal Acquisition Regulation Supplement 242.71.

DAF RESPONSE: The Air Force concurs with intent for this recommendation. In coordination with the Undersecretary of the Air Force for Acquisition, the Air Force Materiel Command Commander, and the Air Force Lifecycle Management Command Commander, the C-17 PMO will assess whether overpayments were made for the 12 items identified within the DoDIG report. Assessment will be complete NLT Aug 2025.

3. The AFLCMC points of contact are [redacted]

PETREK.CURTISS.R. Digitally signed by PETREK.CURTISS.R [redacted]

CURTISS R. PETREK, NH-04, DAF
Deputy Director of Staff

OBO

LORNA B. ESTEP, SES
Executive Director

(U) Acronyms and Abbreviations

AFMC	Air Force Materiel Command
BOM	Bill of Material
BSRAM	Boeing Spares Resource Allocation Model
CIG	Commercial Item Group
COR	Contracting Officer's Representative
DCAA	Defense Contract Audit Agency
DCMA	Defense Contract Management Agency
DFARS	Defense Federal Acquisition Regulation Supplement
FAR	Federal Acquisition Regulation
GISP	Globemaster III Integrated Sustainment Program
G3	Globemaster III Sustainment
NPF	Navy Price Fighters
PBL	Performance-Based Logistics

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