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FEBRUARY 11, 2021



Audit of the Defense Logistics Agency's Sole Source Captains of Industry Strategic Support Contracts

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Results in Brief

Audit of the Defense Logistics Agency's Sole Source Captains of Industry Strategic Support Contracts

February 11, 2021

Objective

The objective of this audit was to determine whether the Defense Logistics Agency's (DLA) sole source, Captains of Industry (COI) strategic support contracts are achieving cost savings, value, and benefits for the DoD.

Background

COI contracts use performance-based outcomes to provide increased warfighter support by improving the availability of spare parts and the response time for spare parts orders. DLA Aviation has 13 COI contracts, with a total estimated value of \$55.6 billion. We reviewed the DLA's COI contracts with Boeing (SPRPA1-14-D-002U) and Moog (SPE4AX-17-D-9415). The elements of performance-based support on the Boeing COI contract include inventory investment and ownership, material management, forecasting, storage, and transportation. We reviewed three performance-based contract line items (CLINs) on the Boeing COI contract: CLIN 0001, which includes spare parts for multiple weapon systems; CLIN 0004, which provides F-15 support; and CLIN 0026, which provides F/A-18 support.

Findings

DLA officials expect to achieve improvements in material availability and cost savings under the Boeing COI contract. For the three CLINs we reviewed, material availability improved and the DLA anticipates a 5-year cost savings of \$430.1 million. The DLA calculated these savings by conducting a business case analysis (BCA) that compared negotiated prices to a baseline estimate based on the DLA's management of the same items.

Findings (cont'd)

We identified an inconsistency regarding the DLA's consideration of a cost recovery rate within the BCAs and found that the DLA potentially overstated its estimated cost savings by \$127.1 million. During our audit, DLA officials developed a new BCA process that includes an adjustment for the cost recovery rate. Therefore, we are not making a recommendation related to the cost recovery rate in BCAs.

As of December 2020, DLA contracting officials had not validated the CLIN 0001 BCAs with actual performance information to determine whether estimated savings were realized. Validating BCA estimates could improve the estimating and tracking of cost savings and help DLA contracting officials with decisions on whether to proceed with additional performance-based work.

During our audit, we identified that the DLA did not have visibility of actual spare parts prices under the three performance-based CLINs we reviewed. In March 2020, DLA officials developed a simulated pricing approach to develop spare parts prices that represent what the DLA agreed to pay for the parts. Due to the DLA's actions, we are not making a recommendation regarding spare parts pricing.

In addition, the Boeing COI contract included bundling, which is the consolidation of two or more requirements for supplies or services previously provided by small business under separate contracts into a solicitation for a single contract. However, DLA contracting officials did not plan for bundling on the sole source COI contract. This occurred because DLA contracting officials did not initially consider the F-15 work a bundled requirement. Furthermore, the DLA's bundling analysis prioritized estimated costs savings and did not evaluate the impact on small businesses or contain correct information about the dollar value of historical DLA contracts or the number of parts provided by small businesses. As a result, DLA contracting officials agreed to set small business participation for the F-15 work at 15.7 percent, which was significantly lower than the previously demonstrated small business participation rate of 43 percent. Therefore, actual small business participation for the 2,550 F-15 parts bundled on the COI contract was reduced by 61 percent, from \$52.4 million prior to bundling work on the COI contract in 2017, to \$20.7 million as of July 2020. Additionally, DLA officials cannot hold Boeing accountable to the participation



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Findings (cont'd)

rate because Boeing only reported small business participation at an overall contract level, and not a more detailed CLIN level.

Unlike the Boeing COI contract, the Moog COI contract contains no performance-based metrics. The DLA uses the Moog contract to purchase material; therefore, according to DLA officials, the Moog contract does not lend itself to incentive metrics. However, the DLA monitors Moog's ability to meet on-time delivery rates. Moog experienced challenges meeting on-time delivery rates in accordance with contract requirements. On-time delivery rates are a measurement of how often Moog delivers orders on time, expressed as a percentage. Defense Contract Management Agency officials issued a corrective action request in December 2019 because Moog's on-time delivery rate degraded to a 12-month average of 53 percent, significantly lower than the objective of 90 percent. In January 2021, Defense Contract Management Agency officials reported that Moog's on-time delivery rate had improved and the corrective action request was closed.

Recommendations

We recommend that the DLA Aviation Commander validate the estimates from the BCA for CLIN 0001 on the Boeing COI contract to identify actual savings, compare the results to the expected cost savings, and determine whether the BCA calculations and assumptions need to be changed in order to improve future estimates.

Additionally, we recommend that the DLA Aviation Commander direct contracting officials to:

- Set small business goals at levels representative of previous small business participation for future bundled work and exercised options.
- Re-evaluate the methodology for determining historical work done in potential bundled areas.

We also recommend that the DLA Aviation Commander develop and implement procedures on all COI contracts to include contract incentives and disincentives for meeting and exceeding small business goals on all future bundled work.

Management Comments and Our Response

The DLA Acquisition Director, responding for the DLA Aviation Commander, agreed with five recommendations and partially agreed with two recommendations. The comments from the Director addressed the intent of all seven recommendations; therefore, four of the recommendations are resolved and open and three are closed. We will close the remaining four recommendations once management provides:

- documentation to show the cost savings validation for CLIN 0001 on contract SPRPA1-14-D-002U, to include explaining any significant differences between expected and actual cost savings and identifying actions to improve future estimates;
- policy or documented procedures to show how DLA Aviation will implement the Acquisition Value Tracker for COI contracts and share lessons learned regarding BCAs; and
- policy requiring the acquisition team supporting any procurement involving substantial bundling to complete the contract consolidation and bundling training developed by the DLA Office of Small Business Programs.

Please see the Recommendations Table on the next page for the status of the recommendations.

Recommendations Table

Management	Recommendations	Recommendations	Recommendations
	Unresolved	Resolved	Closed
Commander, Defense Logistics Agency Aviation	None	A.1, A.2, B.2.a, B.2.b	B.1.a, B.1.b, B.1.c

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

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



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

February 11, 2021

MEMORANDUM FOR DIRECTOR, DEFENSE LOGISTICS AGENCY

SUBJECT: Audit of the Defense Logistics Agency's Sole Source Captains of Industry Strategic Support Contracts (Report No. DODIG-2021-053)

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.

The Defense Logistics Agency Acquisition Director, responding for the Defense Logistics Agency Aviation Commander, agreed or partially agreed with the recommendations presented in the report. Management's comments and associated actions addressed Recommendations B.1.a, B.1.b, and B.1.c in this report, and we consider those recommendations closed. Recommendations A.1, A.2, B.2.a, and B.2.b are considered resolved and open. As described in the Recommendations, Management Comments, and Our Response section of this report, the recommendations may be closed when we receive adequate documentation showing that all agreed-upon actions to implement the recommendations have been completed. Therefore, please provide us within 90 days your response concerning specific actions in process or completed on the recommendations. Your response should be sent to either followup@dodig.mil if unclassified or rfunet@dodig.smil.mil if classified SECRET.

We appreciate the cooperation and assistance received during the audit. If you have any questions, please contact me at

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Introduction

Objective

The objective of this audit was to determine whether the Defense Logistics Agency's (DLA) sole source, Captains of Industry (COI) strategic support contracts are achieving cost savings, value, and benefits for the DoD. Specifically, we reviewed COI contracts awarded to The Boeing Company (Boeing) and Moog, Incorporated (Moog). See Appendix A for a discussion of the scope and methodology and prior audit coverage related to the objective.

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Background

The DLA is a combat logistics support agency that manages the global supply chain for the Army, Navy, Air Force, Marine Corps, Coast Guard, 10 combatant commands, other Federal agencies, and partner and allied nations. Its primary purpose is to meet the logistics requirements of the U.S. Armed Forces for food, clothing, fuel, repair parts, and other items. The DLA's major responsibilities are to buy or contract, warehouse when needed, and distribute about 5 million distinct consumable, expendable, and repairable items.

DLA Aviation, a subordinate command of the DLA, is the aviation demand and supply manager for the DLA. DLA Aviation supports more than 1,700 weapon systems, and is the U.S. military's integrated materiel manager for more than 1.2 million parts, industrial retail supply, and depot-level repairable acquisitions.

Captains of Industry

The DLA created the COI program in March 2012 to address time and cost challenges by developing contractual relationships with original equipment manufacturers. According to the DLA, COI contracts use performance-based outcomes to provide increased warfighter support by improving the availability of spare parts and order response time, reducing repair turn-around time, improving reliability and maintenance planning, and augmenting repair capability. These contracts have overarching terms and conditions to support innovation, cost reduction, and responsiveness; long-term commitments; and the ability to expand beyond parts support including service-driven requirements, engineering improvements, life cycle management support, and remanufacturing or repair. As of July 2020, DLA Aviation had executed COI contracts with 13 contractors. Table 1 shows the total estimated values of these 13 COI contracts.

Contractor	Value (in billions)	Contractor	(
Boeing	\$16.79	Northrop Grumman	Γ
Parker Hannifin	1.10	Sikorsky Aircraft Corporation	
General Electric	9.10	CFM International	Γ
Bell-Boeing	5.47	Moog	
Pratt & Whitney	4.93	Meggitt Aircraft Braking Systems	Γ
Lockheed Martin	4.35	Total	
Honeywell	3.96	Source: The DoD OIG.	
Collins Aerospace	2.92		

Table 1.	DLA Aviation	n Captains o	of Industr	v Contracts
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Boeing COI Contract

On November 27, 2013, DLA Aviation awarded contract SPRPA1-14-D-002U to Boeing as a fixed-price requirements umbrella contract.¹ Under this contract, the DLA acquires sole source consumable parts, depot-level repairables, and performance-based supply chain management support of aircraft and systems manufactured by Boeing. The elements of performance-based support contained in this contract include inventory investment and ownership, wholesale supply support, material management, forecasting, sustaining engineering support, packaging, storage, transportation to contractor warehousing, and reliability improvements. The umbrella contact included a provision stating that no performance or deliveries would take place until the DLA and Boeing jointly executed a contract modification for the first contract line item number (CLIN). The DLA awarded the modification for the initial requirement on September 17, 2014, and has awarded additional requirements since that time. As of July 2020, the Boeing COI contract contained over 70 CLINs that establish support for various weapon systems including the F-15 and F/A-18 aircraft programs. The justification and approval for the Boeing COI contract includes over 68,000 sole source parts. According to DLA officials, the DLA has obligated \$3.8 billion on the contract as of August 13, 2020.

We reviewed three performance-based CLINs on the Boeing COI contract.

• CLIN 0001 covers performance-based support of over 4,000 high-demand consumable spare parts used in multiple weapon systems. CLIN 0001 was awarded in five separate increments.

¹ A requirements contract specifies that the Government will purchase certain supplies or services during a specified contract period from one contractor. An umbrella contract is a non-competitive contract used by the DLA for supplies that establishes the overarching terms, conditions, and a pricing methodology for all work related to that effort.

CLIN 0004 provides for depot-level material support of the F-15, in which Boeing is responsible for supply chain support of the F-15 Planned Depot Maintenance line at the Warner-Robbins Air Logistics Center and provides

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 CLIN 0026 provides for F/A-18 depot support, in which Boeing is responsible for the supply chain support of the F/A-18 Planned Maintenance Interval line at two Fleet Readiness Centers, and provides global support for over 2,800 F/A-18 parts. CLIN 0026 added two separate collections of parts, which the DLA refers to as "Depot 1" and "Depot 2."

Table 2 shows the number of parts, negotiated amounts, and period of performance for these three CLINs.

CLIN Description	Number of Parts	Negotiated Amount	Period of Performance
CLIN 0001, Increment 1	1,602	\$295,270,472	9/17/2014-9/16/2019
CLIN 0001, Increment 2	1,063	\$209,373,082	1/29/2015-9/16/2019
CLIN 0001, Increment 3	45	\$9,709,547	4/18/2016-9/16/2019
CLIN 0001, Increment 4	831	\$147,000,000	12/22/2016-9/16/2019
CLIN 0001, Increment 5	542	\$61,105,000	9/20/2018-9/16/2019
CLIN 0001 Subtotal	4,083	\$722,458,101	-
CLIN 0004, F-15	2,550	\$373,747,923	5/19/2017-5/18/2022
CLIN 0026, F/A-18 Depot 1	2,624	\$429,418,430	4/10/2018-4/9/2023
CLIN 0026, F/A-18 Depot 2	228	\$15,650,000	1/1/2019-4/9/2023
CLIN 0026 Subtotal	2,852	\$445,068,430	-
Total	9,485	\$1,541,274,454	-

Table 2. Performance-Based CLINs Reviewed on the Boeing COI Contract

global support for over 2,500 unique F-15 parts.

Source: The DoD OIG.

•

DLA officials used a fixed-price-incentive contract type for the performance-based requirements in CLINs 0001, 0004, and 0026. This type of contract specifies a target cost, a target profit, a price ceiling, and a profit adjustment formula, which are negotiated at the start of the contract.² When the contractor completes performance, the parties begin an incentive price revision process, in which they assess all incurred direct and indirect costs, negotiate the final cost, and then apply the profit adjustment formula and determine the final price. When the final cost is

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² Target cost is a best estimate of expected costs under the contract. Target profit is a negotiated percentage based on the target cost. Price ceiling is the maximum amount the Government will pay for the work on contract. The profit adjustment formula, also called a share ratio, specifies how the parties will share in any overruns or underruns above and below the target cost.

less than the target cost, application of the formula results in a final profit greater than the target profit; conversely, when final cost is more than the target cost, application of the formula results in a final profit less than the target profit, or even a net loss. If the final negotiated cost exceeds the price ceiling, the contractor absorbs the difference as a loss. Because profit increases as costs decrease, this type of contract provides an incentive for the contractor to control costs.

The DLA bundled work under two of the COI contract CLINs we reviewed, 0004 and 0026. The Federal Acquisition Regulation (FAR) defines bundling as the consolidation of two or more requirements for supplies or services, previously provided or performed by a small business under separate small contracts into a solicitation for a single contract, including multiple award contracts that are likely to be unsuitable for award to a small business.³ Bundling work can have a negative impact on small business participation; therefore, in order to bundle work that was previously done by small business, the DLA needed to perform a bundling analysis in accordance with the FAR to determine whether the bundling was necessary and justified.⁴ According to the FAR, bundling can only occur if the bundling analysis will result in an expected substantial saving of at least 5 percent if the estimated contract value exceeds \$94 million. However, cost savings is not the only requirement, and the high award value of both CLINs we reviewed required the DLA to use additional contract oversight tools. CLIN 0004 bundled F-15 work, with \$170 million awarded. CLIN 0026 bundled F/A-18 work, with \$258 million awarded. When contracts exceed \$700,000, the FAR requires a subcontracting plan to describe the types of supplies or services, the subcontracting goals for large and small business expressed in dollar values, and the methods used to develop the goals and identify sources.⁵

In an effort to protect small business participation, the contracting officer is required to use the subcontracting plan to periodically evaluate the contractor's compliance with the plan. In addition to the goals established in the subcontracting plan, the DLA included a unique contract clause as part of the bundled F/A-18 depot work. The clause incentivizes Boeing to exceed the small business goals established in the subcontracting plan and applies a disincentive if small business goals are not achieved. According to the contract, Boeing receives a 0.5 to 3 percent incentive for exceeding the small business goal of 22.18 percent and receives a disincentive of 0.5 to 3 percent for not achieving the small business goal.

³ FAR Part 2, "Definitions of Words and Terms," Subpart 2.1, "Definitions," Section 2.101, "Definitions."

⁴ FAR Part 7, "Acquisition Planning," Subpart 7.1, "Acquisition Plans," Section 7.107-3, "Bundling."

⁵ FAR Part 19, "Small Business Programs," Subpart 19.7, "The Small Business Subcontracting Program," Section 19.702, "Statutory Requirements."

Moog COI Contract

DLA Aviation awarded the Moog COI contract on August 25, 2017. Under this contract, DLA Aviation acquires sole source consumable parts and depot-level repairables for 207 weapon system platforms. This contract includes more than 1,500 potential parts and has an estimated value of \$585.9 million over a maximum 10-year period. At initial award, the contract included 175 parts valued at \$9.5 million over the base period. DLA officials explained that the Moog COI contract has the same support strategy for sole source parts as the previous contract with Moog, and the contract does not include any bundled work. The DLA refers to the Moog contract as a joint-opportunity contract, which leverages the broad framework of a COI to support service-driven requirements and innovative initiatives that fit within the contract scope. For example, the DLA has amended the contract to include requirements for additive manufacturing.

Unlike the Boeing COI contract, the Moog COI contract is not a performance-based contract and does not have any performance-based metrics. The DLA uses the Moog contract to purchase material; therefore, according to DLA officials, the Moog contract does not lend itself to incentive metrics. However, the DLA monitors Moog's ability to meet on-time delivery (OTD) rates, and DLA officials stated that they also track elements like backorders and product quality.

The DLA delegated contract administration responsibilities for the Moog COI contract to the Defense Contract Management Agency (DCMA). According to DLA and DCMA officials, Moog has faced challenges meeting OTD rates and is working with the DCMA to resolve the causes of OTD decline and improve OTD within the contract requirements. See Appendix B for a discussion of the contract awarded to Moog, including challenges meeting on-time delivery goals, and the benefits of the Moog contract.

Review of Internal Controls

DoD Instruction 5010.40 requires DoD organizations to implement a comprehensive system of internal controls that provides reasonable assurance that programs are operating as intended, and to evaluate the effectiveness of the controls.⁶ We identified internal control weaknesses in the preparation of business case analyses and pre-award bundling determinations. DLA contracting officials did not consistently use cost recovery rates when calculating anticipated cost savings in their business case analyses used to justify the award of several performance-based increments. During our audit, DLA officials provided documentation to show a new process for conducting business case analyses

⁶ DoD Instruction 5010.40, "Managers' Internal Control Program Procedures," May 30, 2013.

that includes an adjustment for cost recovery rate. DLA contracting officials also did not plan for bundling on the Boeing COI contract in accordance with Federal regulations, and used incorrect analysis to justify bundling parts onto the sole source Boeing COI contract. Specifically, DLA contracting officials did not conduct market research to determine whether bundling was necessary and justified, assess the impediments to participation by small business, and develop actions to maximize small business participation. We will provide a copy of the final report to the senior official responsible for internal controls in the DLA.

Finding A

DLA Officials Expect Material Availability Improvements but Need to Validate Cost Savings

DLA officials expect to achieve improvements in material availability (MA) and cost savings under the Boeing COI contract. For the three performance-based CLINs that we reviewed, the DLA realized MA improvements ranging from 4 to 14 percentage points under Boeing's management of consumable parts compared to the DLA's prior management of a similar effort. For these same three CLINs, the DLA anticipates a 5-year cost savings of \$430.1 million. The DLA calculated these savings by conducting a business case analysis (BCA) for each CLIN that compared negotiated prices to a baseline estimate based on the DLA's management of the same items. However, we identified an inconsistency regarding the DLA's consideration of a cost recovery rate within the BCAs and found that the DLA potentially overstated cost savings estimates by \$127.1 million.

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In addition, as of December 2020, DLA contracting officials had not validated the CLIN 0001 BCAs with actual performance information to determine whether estimated savings were realized. Validating BCA estimates could improve the estimating and tracking of cost savings and help DLA contracting officials with future COI price comparisons, contract price negotiations, and decisions on whether to proceed with additional performance-based work. DLA Aviation should develop and implement procedures to validate cost savings estimates and share lessons learned regarding BCAs. DLA Aviation should apply these actions to its 12 existing COI contracts, with a total estimated value of \$38.9 billion, as well as any future performance-based COI contracts, to help determine whether those contracts are providing cost savings to the DLA.

During our audit, we identified that DLA did not have visibility of actual spare parts prices under the three performance-based CLINs we reviewed. In March 2020, DLA officials developed a simulated pricing approach, which used cost information from Boeing's proposal to develop spare parts prices that represent what the DLA agreed to pay for the parts. DLA officials stated that they will use these representative prices as a basis for future cost comparisons.

The DLA Anticipates Benefits Using the Boeing COI Contract

DLA officials expect to realize performance improvements and cost savings under the Boeing COI contract. Specifically, MA improved from 79 percent to 93 percent (an increase of 14 percentage points) for CLIN 0001 under Boeing's management of consumable parts compared to the DLA's prior management of a similar effort. MA for CLIN 0004 improved from 90 percent to 94 percent, an increase of 4 percentage points. For CLIN 0026, MA improved from 84 percent to 89 percent for Depot 1 and from 87 percent to 94 percent for Depot 2, which represents increases of 5 and 7 percentage points, respectively. For these same three CLINs, the DLA anticipates a 5-year cost savings of \$430.1 million.

Improvement in Material Availability

The DLA reported improvements in MA under the three CLINs we reviewed on the Boeing COI contract. DLA officials explained that MA is the primary performance-based metric for the Boeing COI contract and that they use this metric in supply chain contracts to ensure customers realize the benefits from delivery of requisitioned parts without interruption. The Boeing COI contract requires that a certain percentage of materials be available for pickup within 1 to 3 days of order depending on the priority of the requisition.

In September 2012, the DLA Director instructed the DLA hardware supply chains (which include DLA Aviation) to achieve and sustain a 90 percent MA by the end of the first quarter of FY 2013. DLA officials incorporated this goal into the performance requirements of the three CLINs we reviewed. DLA officials stated that they monitored Boeing's MA performance on a monthly basis and reconciled the DLA's MA records with Boeing. At the end of each annual performance period, the DLA determined the final MA percentage that Boeing achieved. In addition, DLA leadership held formal performance management reviews approximately every 6 months, in coordination with Boeing officials, to compare Boeing's actual MA performance to contract requirements and address any performance challenges.

Under the three performance-based CLINs that we reviewed, the DLA makes monthly payments during the 5-year contract period for each CLIN. The monthly payments include profit as well as a performance fee that assumes Boeing will meet contractual MA requirements. DLA officials use the final, reconciled MA percentage for each annual contract period to determine the amount of the performance fee. If Boeing achieves performance below the required MA percentage, the DLA reduces the performance fee payable to Boeing using decrements stated in the contract, and applies this reduction to the next available monthly payment or next delivery order. The DLA awarded CLIN 0001 to provide high-demand consumable spare parts for multiple weapon systems. Figure 1 shows that Boeing's reported MA performance for this effort exceeded both the DLA's pre-COI MA and the contract requirement for all but the final year of the CLIN 0001 5-year base period.

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Figure 1. Boeing's Reported Material Availability Compared to Contract Requirements for CLIN 0001

Source: The DoD OIG.

According to DLA officials, the pre-COI MA of 79 percent for CLIN 0001 occurred because the DLA generally did not carry sufficient inventory to meet the DoD's material requirements, nor did the DLA have sufficient staff and other in-house resources to process the transactions needed to support the DoD's supply needs. For the 5-year performance period, Boeing achieved an average MA of 93 percent. Boeing exceeded MA contract requirements for FYs 2015 through 2018, but Boeing's FY 2019 MA fell to 90 percent, which was below the contact requirement. DLA officials stated that late supplier deliveries and production capacity limits for some items that share production with other Army programs contributed to this MA shortfall. As a result of not meeting the required 92 percent MA, the FY 2019 performance fee of \$8,193,953 will be reduced by \$409,698 (or 5 percent) for a net payment to Boeing of \$7,784,255.⁷

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 $^{^{7}}$ The amount of the fee reduction may be adjusted during the CLIN 0001 price revision discussed later in this report.

The DLA awarded CLIN 0004 for F-15 depot support in May 2017 and Boeing completed work for the first 3 years of the 5-year base period in May 2020. CLIN 0004 has a 90 percent MA contract requirement, which is the same as the DLA's pre-COI MA performance. Boeing achieved an average MA of 94 percent for Years 1 through 3 of CLIN 0004, and exceeded contract requirements for each year.

The DLA awarded CLIN 0026 for F/A-18 depot support in April 2018 and Boeing completed work for the first 2 years of the 5-year base period in April 2020. The DLA tracks MA separately for the Depot 1 and Depot 2 efforts under CLIN 0026. For Depot 1, the DLA established the Year 1 MA contract requirement for CLIN 0026 at 84 percent (equal to the DLA's pre-COI MA baseline) because, according to DLA officials, this contract period began with an unusually high number of back-ordered parts. The DLA established the Year 2 MA requirement at 86 percent, and required an MA of 90 percent for Years 3 through 5. For Depot 1, Boeing achieved an average MA of 89 percent for Years 1 and 2 and exceeded the contract requirements for each year. For Depot 2, the DLA did not establish a Year 1 contract requirement for MA due to the short performance period of 4 months. For Year 2, Boeing achieved a 94 percent MA, which exceeded the contract requirement of 87 percent.

The DLA Used BCAs to Estimate Cost Savings

DLA contracting officials anticipate a 5-year cost savings of \$430.1 million under performance-based CLINs 0001, 0004, and 0026. Prior to awarding each CLIN or increment of support, the DLA conducted a BCA to determine the cost-effectiveness of the performance-based approach. The BCA included a baseline calculation of how much it would cost the DLA to support the spare parts requirements over the contract period at the required MA levels, and officials compared the baseline estimate to Boeing's proposal, the Government objective amount, and the final negotiated amount to identify estimated cost savings.⁸ To calculate a baseline price at the desired 90 percent MA level, DLA officials used a simulation that incorporated historical pricing and spare parts demand. This baseline included part costs, along with distribution and order fulfillment charges; warehousing costs; and a cost to purchase inventory and replenish predetermined stocking requirements for each part at the end of the contract period to sustain the 90 percent MA level. Officials documented the BCA and estimated cost savings within a price negotiation memorandum for each performance-based CLIN or increment.

⁸ The Government objective amount is an initial estimated price that the contracting officer determines to be fair and reasonable.

For each CLIN and increment that we reviewed, DLA officials justified the award as cost-effective based on the savings achieved from the negotiated amount as compared to the baseline cost. Table 3 shows information from the CLIN 0001, 0004, and 0026 BCAs, including the baseline and negotiated amounts and the \$430.1 million savings identified.

(CUI) CLIN and Increment	BCA Baseline	Negotiated Amount	Savings Amount	Savings Percent
CLIN 0001, Increment 1		\$295,270,472		
CLIN 0001, Increment 2		\$209,373,082		
CLIN 0001, Increment 3		\$9,709,547		
CLIN 0001, Increment 4		\$147,000,000		
CLIN 0001, Increment 5		\$68,498,705*		
CLIN 0001 Subtotal		\$729,851,806		
CLIN 0004		\$373,747,923		
CLIN 0026, Depot 1		\$463,492,251*		
CLIN 0026, Depot 2		\$15,650,000		
CLIN 0026 Subtotal		\$479,142,251		
Total	\$2,012,797,215	\$1,582,741,980	\$430,055,235	21.37 (CUI)

* As we discuss later, the DLA adjusted these negotiated amounts to account for a cost recovery rate as part of the BCA cost savings calculation.

Source: The DoD OIG.

Although DLA officials conducted a BCA for each CLIN or increment, we identified an inconsistency regarding the DLA's consideration of a cost recovery rate within the BCAs. A cost recovery rate is a percentage of an item's cost that the DLA charges its customers to recover its acquisition and administrative costs. While the BCA baseline cost includes the cost recovery rate, the final negotiated amount does not include it. In some BCA calculations, DLA officials adjusted for the cost recovery rate by adding it to the negotiated amount; however, DLA officials did not consistently consider the cost recovery rate in all BCAs. Specifically, DLA officials did not adjust for the cost recovery rate in six of the eight BCAs that we reviewed. We recalculated the savings estimates for these six BCAs to adjust for the cost recovery rate and found that the DLA potentially overstated the cost savings estimates by \$127.1 million. Table 4 shows a comparison of the savings estimates for the six recalculated BCAs.

(CUI) CLIN and Increment	DLA Calcula No Adjustm Cost Recove	ustment for Adjusted for Dif		Difference (Overstated	
	Savings Amount	Savings Percent	Savings Amount	Savings Percent	Savings)
CLIN 0001, Increment 1					
CLIN 0001, Increment 2					
CLIN 0001, Increment 3					
CLIN 0001, Increment 4					
CLIN 0004					
CLIN 0026, Depot 2					
TOTAL	\$382,229,541	26.67	\$255,088,667	17.08	\$127,140,874 (CUI)

(CUI) Table 4. Cost Savings Estimates With and Without Cost Recovery Rate

Source: The DoD OIG.

We discussed the cost recovery rate with DLA officials, and they agreed that BCAs should adjust for the cost recovery rate. DLA officials explained that their process for completing BCAs evolved as new CLINs and increments were awarded on the Boeing COI contract, and they stated in February 2020 that they now include adjustments for the cost recovery rate in all BCAs. In September 2020, DLA officials provided documentation to show a new BCA process that includes an adjustment for the cost recovery rate. Therefore, we are not making a recommendation related to the cost recovery rate in BCAs.

The DLA Has Not Validated Cost Savings Estimates

DLA officials estimated cost savings when they awarded each performance-based CLIN; however, officials have not validated the BCA estimates with actual performance information to determine whether savings were realized. DoD's Product Support BCA Guidebook discusses the importance of revalidating BCAs by comparing estimated results to actual results.⁹ The Guidebook states that officials should research and document any reasons for variances between anticipated and actual results, and identify best practices or lessons learned that can be applied to future BCAs.

⁹ Office of the Assistant Secretary of Defense for Logistics and Material Readiness, "DoD Product Support Business Case Analysis Guidebook," April 2011.

(CUI) In the BCAs for CLIN 0001, DLA officials estimated a cost savings of

percent, based on comparing a baseline cost estimate of to the total negotiated price of \$729,851,806. However, because the DLA has not yet completed the CLIN 0001 price revision process to determine a final contract price, the DLA is not able to compare the estimated price to the actual price and determine the savings amount. Calculating actual savings amounts will allow the DLA to determine whether the performance-based approach was cost-effective, which will help the DLA with future decisions on whether to proceed with additional performance-based work. In addition, comparing actual savings amounts to savings estimated in the BCAs will allow the DLA to identify and analyze variances and refine the BCA methodology, which can improve future BCAs and provide decision-makers with more accurate cost savings estimates. DLA officials, on completion of the incentive price revision process for CLIN 0001, should validate the estimates from the BCA to identify actual savings and compare the results to the expected cost savings. If the DLA identifies significant differences between the expected and actual cost savings, officials should identify the reasons for the differences, and determine whether the BCA calculations and assumptions need to be changed in order to improve future estimates.

According to DLA officials, the Boeing COI contract was DLA Aviation's first COI contract, and it is also the largest. DLA Aviation has 12 additional COI contracts, with a total estimated value of \$38.9 billion. Therefore, it is critical that DLA Aviation officials collect and apply information and lessons learned from the Boeing COI contract to the other COI contracts, and develop procedures to ensure consistency across the COI contracts. Specifically, the DLA Aviation Commander should develop and implement procedures for all COI contracts to validate cost savings estimates from BCAs, identify the reasons for any variances between the expected and actual cost savings, and share lessons learned to improve the estimating process across all DLA Aviation contracts.

Performance-Based Work Limits Visibility of Spare Parts Prices

During our audit, we identified that DLA contracting officials did not have visibility of actual spare parts prices under the performance-based CLINs we reviewed. DLA contracting officials awarded the COI contract to Boeing to provide holistic supply chain management, including activities such as program management, demand forecasting, inventory management, and warehousing. Under the performance-based CLINs, the DLA does not purchase individual parts, but rather pays a monthly lot price that includes parts as well as supply chain management activities. As outlined in the Boeing COI contract, the performance-based CLINs are subject to incentive price revision at the end of the base period. Specifically, the contract requires Boeing to provide a detailed statement of all costs incurred in the performance of those CLINs.¹⁰ The contract further specifies how the DLA and Boeing will use the cost information provided to negotiate a final cost. Then, the parties will apply the agreed-upon profit ratio to calculate a final price, and finally, they will calculate the appropriate payments or refunds necessary to reflect this final price.

As of December 2020, DLA contracting officials had not completed the price revision process to determine actual costs incurred and establish the final contract price for CLIN 0001. The 5-year base period for CLIN 0001 ended on September 16, 2019. According to DLA officials, Boeing provided the CLIN 0001 cost data to the DLA on July 1, 2020, and the DLA, with the assistance of the DCMA, reviewed the data. DLA and Boeing officials reached a preliminary price agreement in December 2020; however, the CLIN 0001 contract price will not be finalized until DLA and Boeing complete the incentive reconciliation.

The cost data that Boeing provided for the CLIN 0001 price revision did not contain individual spare parts costs; instead, Boeing's submission showed a breakout by cost element, including totals for materials, labor, and indirect costs. DLA contracting officials did not require Boeing's submission for CLIN 0001 to include actual spare parts costs. Additionally, the FAR does not require that level of detail in a cost submission for a fixed-price-incentive contract. However, it is important for the DLA to have information about spare parts costs, and to record current pricing information in the Enterprise Business System. The DLA uses historical pricing information from the Enterprise Business System to help establish fair and reasonable prices and conduct negotiations.

The DoD OIG identified acquisition and contract management as an FY 2020 Top DoD Management Challenge and highlighted the importance of obtaining accurate and current data to establish fair and reasonable pricing for contracts.¹¹ Specifically, the DoD OIG has identified longstanding problems with the pricing of contracts for spare parts, especially sole-source parts, in large part because of the lack of adequate cost data. While comparing proposed prices to historical prices paid for the same or similar items is a preferred price analysis technique that the Government can use to ensure fair and reasonable prices, the contracting officer must be able to determine that the prior price is a valid basis for comparison. If significant time has passed, reliance on historical prices may not be a valid basis. Further, in a sole source environment, the only way to re-establish a

¹⁰ FAR Part 52, "Solicitation Provisions and Contract Clauses," Subpart 52.2, "Text of Provisions and Clauses," Section 52.216-16, "Incentive Price Revision–Firm Target."

¹¹ DoD Office of Inspector General, "Fiscal Year 2020 Top DoD Management Challenges," October 15, 2019.

reliable baseline price is to use cost data. Therefore, when using COI contracts, it is critical that contracting officers obtain accurate and current data to ensure that the DoD gets the best price for the warfighter and taxpayer.

Maintaining visibility of spare parts prices is especially important on COI contracts with multi-year performance periods. For example, when DLA officials were negotiating prices for the CLIN 0001 option period, officials did not use actual costs experienced under CLIN 0001 to complete their BCA and support contract negotiations. Because DLA officials did not have information on actual costs, they instead applied escalation to pre-COI prices, which the DLA used as a baseline for comparison to Boeing's proposed costs for the option period. Unless DLA officials obtain current spare parts prices, they will continue using escalated historical prices to complete their BCAs and support contract negotiations.

DLA officials explained that in the absence of actual spare parts cost data from the CLIN 0001 price revision process, they developed a simulated pricing approach in March 2020 that allowed officials to update the Enterprise Business System with spare parts prices that represent what the DLA agreed to pay for the parts. Officials explained that they used the material costs that the DLA and Boeing negotiated at the beginning of the contract, along with negotiated profit amounts, to calculate the representative spare parts prices. DLA officials stated that loading these representative prices into the Enterprise Business System will provide a baseline for future cost comparisons. DLA officials added that they plan to use this new representative pricing process to update spare parts prices for all COI contracts. Therefore, because DLA officials developed processes to address our concerns with the visibility of spare parts prices under the performance-based CLINs during the course of our audit, we are not making a recommendation related to obtaining spare parts cost data.

Recommendations, Management Comments, and Our Response

Recommendation A.1

We recommend that the Defense Logistics Agency Aviation Commander, on completion of the incentive price revision process for contract line item number 0001 on contract SPRPA1-14-D-002U, validate the estimates from the business case analysis to identify actual savings and compare the results to the expected cost savings documented in the price negotiation memorandum. If there are significant differences between the expected and actual cost savings, identify the reasons for the differences, and determine whether the business case analysis calculations and assumptions need to be changed in order to improve future estimates.

Defense Logistics Agency Comments

The DLA Acquisition Director, responding for the DLA Aviation Commander, partially agreed with the recommendation, stating that DLA Aviation has made multiple improvements in its ability to estimate cost since initiating the COI program. The Director stated that for CLIN 0001, DLA Aviation has conducted several partial reconciliations to compare projected demand to actual demand, and has adjusted contractual payments accordingly. The Director stated that officials also tracked actual performance against the pre-award BCA targets to ensure that DLA Aviation achieved its performance goals. The Director explained that at the conclusion of the incentive price revision process for the base period, DLA Aviation will know actual costs incurred; however, a direct comparison between costs incurred and the cost savings documented in the price negotiation memorandum is challenging because DLA Aviation will not know precisely what the costs would have been without the COI contract in place. The Director stated that DLA Aviation has used, and will continue to use, information from the demand reconciliation, performance, and incentive price revision processes to improve future estimating techniques. The Director provided an estimated completion date of March 31, 2021.

Our Response

Comments from the Director addressed all specifics of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation once DLA Aviation provides documentation to show the cost savings validation for CLIN 0001 on contract SPRPA1-14-D-002U, to include explaining any significant differences between expected and actual cost savings and identifying actions to improve future estimates.

Recommendation A.2

We recommend that the Defense Logistics Agency Aviation Commander develop and implement procedures for all Captains of Industry contracts to validate cost savings estimates from the business case analyses based on actual performance data, identify the reasons for any variances between the expected and actual cost savings, and share information and lessons learned regarding business case analyses, to improve the estimating process across all Defense Logistics Agency Aviation contracts.

Defense Logistics Agency Comments

The DLA Acquisition Director, responding for the DLA Aviation Commander, agreed with the recommendation, stating that DLA Instruction 5010.06 requires a post-award BCA, and DLA Aviation has developed an analytical capability called Acquisition Value Tracker to meet this requirement.¹² The Director explained that the Tracker provides information on whether the contract is meeting the performance objectives and projected return on investment by re-baselining the pre-award BCA projection using actual demand over the contract's period of performance. The Director stated that the methodology and assumptions within the Tracker provide the best estimate of actual savings going forward, and that lessons learned related to assumptions within these processes, procedures, and analyses will be shared as part of DLA Aviation's program reviews to continuously improve the BCA and estimating processes. The Director provided an estimated completion date of March 31, 2021.

Our Response

Comments from the Director addressed all specifics of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation once DLA provides policy or documented procedures to show how DLA Aviation will implement the Acquisition Value Tracker for COI contracts and share lessons learned regarding BCAs.

¹² DLA Instruction 5010.06, "Business Case Analysis (BCA)," Change 2, May 31, 2018.

Finding B

DLA Officials Did Not Adequately Assess Small Business Impact When Bundling Competitive Parts on a Sole Source Contract

DLA contracting officials did not plan for bundling on the sole source Boeing COI contract in accordance with Federal regulations.¹³ Specifically, DLA contracting officials did not:

- conduct market research to determine whether bundling was necessary or justified before developing a solicitation for review by the Small Business Administration (SBA) Procurement Center Representative (PCR),
- assess the impediments to participation by small business, and
- develop actions to maximize small business participation as contractors or subcontractors.

This occurred because DLA contracting officials did not consider the F-15 work a bundled requirement until after the SBA PCR reviewed the solicitation and recommended that the contracting officer perform a bundling analysis, or not bundle the work. Furthermore, the DLA's bundling analysis prioritized estimated costs savings and did not evaluate the impact to small business or contain correct information about the dollar value of historical DLA F-15 contracts or the number of parts provided by small businesses.

As a result, DLA contracting officials agreed to set small business participation for the F-15 work at 15.7 percent, which was significantly lower than the previously demonstrated participation rate of approximately 43 percent from 2011 to 2017. Therefore, actual small business participation for the 2,550 F-15 parts bundled on the COI contract was reduced by 61 percent, from \$52.4 million prior to bundling work on the COI contract in 2017, to \$20.7 million as of July 2020.¹⁴ Additionally, DLA officials cannot hold Boeing accountable for the significantly lower participation rate of 15.7 percent, because Boeing only reported small business participation at an overall contract level, and not a more detailed CLIN level.

¹³ FAR Part 2, "Definitions," defines bundling as a subset of consolidation that combines two or more requirements for supplies or services, previously provided or performed under separate smaller contracts. FAR Part 7, "Acquisition Planning," Subpart 7.1, "Acquisition Plans," Section 7.107-4, "Substantial Bundling," states that substantial bundling is any bundling that results in a contract or task or delivery order with an estimated value of \$8 million or more for the DoD.

¹⁴ We calculated \$52.4 million as the historical small business participation from May 2014 through May 2017. The \$20.7 million represents actual small business participation for F-15 work under the COI contract, from May 2017 through July 2020, as reported by the DLA.

DLA Officials Did Not Plan for Bundling

DLA officials did not plan for bundling on the sole source Boeing COI contract in accordance with Federal regulations. The DLA bundled work under CLINs 0004 and 0026 on the Boeing COI contract. CLIN 0004, with an awarded amount of \$170 million, is for F-15 depot support and includes 2,550 bundled parts. CLIN 0026, with an awarded amount of \$258 million, is for F/A-18 depot support and includes over 2,800 bundled parts.

Bundling refers to the consolidation of two or more requirements for supplies or services, previously provided or performed by a small business under separate small contracts, into a solicitation for a single contract, including multiple award contracts, that is likely to be unsuitable for award to a small business.¹⁵ If bundled work has an estimated value of \$8 million or more for the DoD, it is considered substantial bundling. In order to protect small business interests, all bundled work must be determined to be necessary and justified, according to the FAR. A bundled requirement is considered necessary and justified if the agency would obtain measurably substantial benefits compared to meeting its requirements through separate smaller contracts or orders. Through market research, the agency planning to bundle requirements must quantify the specific benefits identified and explain how the impact would be measurably substantial. Such benefits may include cost savings, price reduction, and quality improvements that will save time or improve performance or efficiency, reduce acquisition cycle times, or result in better terms and conditions.

Substantially bundled work has additional requirements according to the FAR.¹⁶ In addition to addressing the requirements for bundling, when the proposed acquisition strategy involves substantial bundling, the agency will document in its acquisition strategy:

- the specific benefits anticipated to be derived from substantial bundling;
- an assessment of the specific impediments to participation by small business concerns as prime contractors that result from substantial bundling;
- actions designed to maximize small business participation as subcontractors;
- actions designed to maximize small business participation as subcontractors (including suppliers) at any tier under the contract, or order, that may be awarded to meet the requirements;

¹⁵ FAR Part 2, "Definitions."

¹⁶ FAR Part 7, "Acquisition Planning," Subpart 7.1, "Acquisition Plans," Section 7.107-4, "Substantial Bundling."

- the determination that the anticipated benefits of the proposed bundled contract or order justify its use; and
- alternative strategies that would reduce or minimize the scope of the bundling, and the rationale for not choosing those alternatives.

We found that DLA contracting officials did not conduct market research to determine whether bundling was necessary or justified before developing a solicitation for review by the SBA PCR, assess the impediments to participation by small business, and develop actions to maximize small business participation as contractors or subcontractors.

The SBA PCR is responsible for assuring that small business concerns have a fair and equitable opportunity to compete for Federal procurement opportunities and that a fair proportion of the total sales of Government property is made to small business concerns. The SBA PCR reviews proposed acquisitions over a specified dollar threshold to recommend set-asides, new sources, and breakout components for competition. The SBA PCR also reviews proposed bundled acquisitions to recommend alternate contracting methods to increase small business prime contracting opportunities and recommends sources to be solicited.

The DLA Did Not Consider F-15 Work a Bundled Requirement

DLA contracting officials did not consider the F-15 work a bundled requirement until after the SBA PCR reviewed the solicitation and recommended that the contracting officer perform a bundling analysis, or not bundle the work. Furthermore, the DLA's bundling analysis, once completed, prioritized estimated costs savings and did not evaluate the impact to small business or contain correct information about the dollar value of historical DLA F-15 contracts or the number of parts historically provided by small businesses.

SBA PCR Determined That F-15 Depot Support Work Met the Definition of a Bundle

In April 2014, DLA contracting officials submitted a solicitation for F-15 Depot Support work, with an estimated total value of \$12.6 billion, for review by the SBA PCR.¹⁷ According to the SBA PCR, the F-15 Depot Support work was a consolidation of 4,576 items with services added to provide overall supply chain management. The items for which the services were being provided were previously purchased under separate smaller contracts.

 $^{^{17}\;}$ DLA contracting officials awarded the F-15 Depot Support work under CLIN 0004 for \$170 million.

The SBA PCR stated that a total of 1,228 items were affected by this bundled action, including 961 items with competitive drawings previously solicited as small business set-aside buys. In addition, 33 items were restricted by qualified products listings and contained approved small business sources on those listings, and 432 items had small business sources in the item description.¹⁸ According to the SBA PCR, the estimated value of these small business items was \$35.6 million annually, or \$350.6 million over 10 years.

The SBA PCR determined that the F-15 Depot Support solicitation met the definition of a bundle according to Federal regulations and stated that by aggregating these items, which were provided by small business concerns, with a service that only Boeing can provide, the agency made this buy unsuitable for small business. The SBA PCR recommended that the DLA conduct a full bundling analysis on the items, or remove the items identified as small business from the solicitation.

According to the SBA Recommendation Form 70, the contracting officer denied that the work was a bundle and refused to provide a benefit analysis to support the F-15 solicitation. The SBA PCR stated that this buy violated FAR 7.107 because no bundling analysis was provided.¹⁹ According to contract documentation, the contracting officer and the head of the contracting activity rejected the appeal by the SBA PCR. However, according to contract documentation, the SBA PCR. However, according to contract documentation, the SBA submitted its appeal, as required by the FAR, to the Office of the Secretary of Defense, stating the need for a bundling analysis.²⁰

The DLA subsequently developed a bundling analysis and submitted it to the SBA. The SBA disagreed with the acquisition strategy, projected savings, and impact on small business concerns presented in the bundling analysis. As stated in contract documentation, the DLA Director submitted a letter with the DLA's position to the Office of the Secretary of Defense on July 30, 2014, and the Office of the Secretary of Defense on July 30, 2014, and the Office of the Secretary of Defense submitted its final position to the SBA on October 3, 2014, stating it had "determined the bundling analysis demonstrates benefits are measurably substantiated and bundling is necessary and justified."

¹⁸ A qualified products listing shows the status of manufacturers or distributors who have demonstrated their ability to meet specified standards for that product.

¹⁹ FAR Part 7, "Acquisition Planning," Subpart 7.1, "Acquisition Plans," Section 7.107, "Additional Requirements for Acquisitions Involving Consolidation, Bundling, or Substantial Bundling."

²⁰ FAR Part 19, "Small Business Programs," Subpart 19.5, "Small Business Total Set-Asides, Partial Set-Asides, and Reserves," Section 19.505, "Rejecting Small Business Administration Recommendations."

Bundling Analysis Prioritized Cost Savings Over Small Business Participation

After submitting the solicitation for review by the SBA PCR, DLA contracting officials performed a bundling analysis for the F-15 Depot Support work documenting benefits. The DLA officials identified that the benefits were measurably substantial, necessary, and justified based on the results of their market research, benefits analysis, and small business action plan. However, DLA contracting officials did not include accurate information while conducting their bundling analysis in accordance with Title 13 Code of Federal Regulations (CFR) section 125.2 (2020). Additionally, DLA contracting officials did not conduct a comparison of prices that small businesses charged for work that they had previously performed in order to determine whether bundling would achieve cost savings or price reductions in accordance with FAR 7.107-3.²¹

DLA Cost Savings Analysis for Bundling

In the bundling analysis, DLA officials prioritized estimated cost savings for the COI contract effort. According to FAR 7.107-3, benefits are measurably substantial if the anticipated financial benefits are equivalent to 5 percent of the estimated contract. DLA officials identified two different estimated cost savings percentages in the 2014 bundling analysis. Specifically, DLA officials discussed an overall 10-15 percent cost savings that Boeing projected at the overall COI contract level by switching Boeing's role from a supplier of sole source parts to full performance-based support. DLA officials cited this overall COI contract savings estimate throughout the bundling analysis. In addition, DLA contracting officials used baseline costs from an unrelated CLIN, CLIN 0001, to support projected cost savings for F-15 work under CLIN 0004 in the 2014 bundling analysis. DLA officials calculated their projected cost savings, which would equate to 10.8 percent at Boeing's proposal value. DLA officials used both Boeing's projected cost savings and the DLA's expected cost savings under CLIN 0001 as determining factors to proceed with the bundling of the F-15 parts.

Further, in 2017, DLA contracting officials performed one additional price analysis to determine the cost-effectiveness of the performance-based approach prior to awarding the bundled F-15 parts on the Boeing COI contract. DLA officials compared the negotiated amount for the F-15 work to how much it historically cost the DLA to support the spare parts requirements over the contract period.

²¹ FAR Part 7, "Acquisition Planning," Subpart 7.1, "Acquisition Plans," Section 7.107-3, "Bundling."

This comparison identified an estimated 6.5 percent cost savings. In February 2020, DLA contracting officials stated that the Boeing COI contract had generated enough savings on a percentage basis to meet the FAR cost savings requirement for bundled acquisitions.

DLA Officials Did Not Conduct Appropriate Market Research or Cost Comparison

According to guidance from the DoD's Office of Small Business Programs, because a bundled requirement displaces one or more small businesses, small business participation is the primary factor in determining whether an acquisition should be bundled.²² The DLA conducted a small business review of contracts historically awarded to support the F-15 Depot Support effort in the 2014 bundling analysis. The DLA reported awards of \$341.4 million over 3 years, with \$106.8 million going to small business. According to 13 CFR sec. 125.2 (2020), the Small Business Act requires acquisition planners to avoid unnecessary and unjustified bundling of contract requirements that inhibits or precludes small business participation in procurements as prime contractors. In order to assess whether bundling is unjustified or unnecessary, the FAR and CFR require agencies to conduct market research in order to determine the estimated small business participation in the acquisition.

According to the CFR, agencies are required to be as broad as possible in their search for qualified small businesses, using key words as well as business classification codes, and placing no unnecessary and unjustified restrictions while conducting market research. However, DLA officials did not obtain small business

qualifications for 132 purchase orders totaling \$4.6 million, while conducting the bundling analysis in 2014. In October 2020, DLA officials conducted additional market research and determined that \$4.4 million of the purchase order was awarded to large businesses and \$155,000 was awarded to

DLA officials did not obtain small business qualifications for 132 purchase orders totaling \$4.6 million, while conducing the bundling analysis in 2014.

small businesses. However, DLA officials should have evaluated these purchase orders, obtained small business qualifications, and conducted market research in 2014, while conducting their bundling analysis. As a result, DLA officials inappropriately excluded \$4.6 million from their bundling analysis and did not conduct market research in accordance with FAR and CFR requirements.

CUI

²² DoD Office of Small Business Programs, "Benefit Analysis Guidebook," October 2007.

Additionally, DLA contracting officials did not use the results of the small business historical pricing data, as required by FAR 7.107-3(g)(1), to conduct a cost comparison between small business prices and the projected prices under the bundled contract. The FAR requires a comparison of prices charged by small businesses for work that they have previously performed in order to determine whether bundling would achieve cost savings or price reductions. The CFR expands on these requirements and requires that, when assessing whether cost savings would be achieved through bundling, the procuring activity and the SBA must compare the price that has been charged by small businesses for the work that they have performed and, where available, the price that could have been or could be charged by small businesses for the work not previously performed by small business.²³ To determine whether cost savings or price reduction would be achieved, the DLA only conducted a comparison of small business participation versus non-small business participation, and did not provide a comparison between prices that had been previously charged by small businesses and the prices under the bundled contract. DLA Aviation should develop and implement procedures on all current and future COI contracts to plan for substantial bundling work at the beginning of contracts and document actions to maximize small business participation, as required by the FAR, in the acquisition strategy.

Bundling Analysis Did Not Accurately Represent Historical Work Done By Small Business

The DLA's bundling analysis did not contain correct information about the dollar value of historical DLA F-15 contracts or the number of parts provided by small business. However, DLA contracting officials used that incorrect information to make decisions to justify that bundling F-15 Depot Support work on the Boeing COI contract was necessary.

Incomplete and Inaccurate Analysis Conducted

The DLA's small business review did not contain the correct historical data on the DLA F-15 contracts. The DLA's small business review did not contain the correct historical data on the DLA F-15 contracts and excluded data relevant in determining the actual impact on small businesses. The DLA conducted a

small business review of contracts historically awarded to support the F-15 effort, in order to determine the impact on small businesses if the work was bundled. DLA contracting officials documented the results of the review in the bundling analysis, and used the small business review as support in determining the necessity to proceed with the bundled acquisition.

²³ Title 13 CFR Part 125 – Government Contracting Programs, Section 125.2(d)(2) – Limitation on the Use of Contract Bundling.

We reviewed the support for the small business review and found that the analysis did not represent a 3-year dollar value of historical data on DLA contracts awarded for the F-15 Depot Support effort. DLA contracting officials stated that their analysis included 3 years of historical DLA contracts from 2011 to 2014, valued at \$341.4 million, based on the purchase order request date. However, we reviewed the documentation supporting the small business review and identified procurements totaling \$9.7 million within the data with effective award dates ranging from 2005 to 2010 that were incorrectly included by the DLA in the 3-year historical value of \$341.4 million.

Additionally, DLA contracting officials bundled parts onto the COI contract without analyzing the historical work done by small businesses in order to determine the impact on small business participation. We compared the items from the bundling analysis to the 2,550 items placed on contract and identified that 7 out of the 2,550 items bundled onto the Boeing COI contract were not included in the data supporting the bundling analysis. In October 2020, DLA officials stated that they conducted a review of the 7 items we identified and confirmed that the items were on the contract and were not part of the data pulled for the bundling analysis conducted in 2014. DLA officials stated that they performed additional analysis on the 7 items and determined that they were previously provided by large business and therefore, had no impact on the bundling analysis. However, DLA officials should have evaluated these items while conducting the bundling analysis in 2014, and not 6 years later, after the items were already placed on contract. Further, DLA contracting officials excluded historical acquisitions from their small business impact results. Specifically, the DLA did not obtain small business qualifications for 26 contractor commercial and Government entity codes totaling \$4.6 million.²⁴ DLA contracting officials did not evaluate whether those 26 entity codes were large or small businesses. In October 2020, DLA officials conducted additional research and determined that 3 of the 26 entity codes,

valued at \$150,000, were small businesses. However, DLA officials did not evaluate these entity codes while conducting the bundling analysis in 2014. DLA officials should have reviewed the qualification of those 26 codes to determine the accurate, historical large DLA contracting officials used the incomplete and inaccurate data as support in determining the necessity to proceed with the bundled acquisition.

and small business participation on the bundled work. DLA contracting officials used the incomplete and inaccurate data as support in determining the necessity to proceed with the bundled acquisition, and therefore, did not determine the

A commercial and Government entity code is a five-character identification number used extensively within the Government, assigned by the DLA. The code supports a variety of mechanized systems throughout the Government and provides a standardized method of identifying a given legal entity at a specific location.

actual impact on small businesses. DLA contracting officials should re-evaluate their methodology for determining historical work done in potential bundled areas. Specifically, the DLA should establish a methodology to determine the reliability of the data used in bundling analysis.

Bundling Work Reduced Small Business Participation and Competition

DLA contracting officials agreed to set the small business participation rate for F-15 work at 15.7 percent, which was significantly lower than the previously demonstrated participation rate of 43 percent, from 2011 to 2017. That means, of the \$170 million awarded under CLIN 0004, only \$26.6 million was intended for small business work. We analyzed small business participation for the 2,550 items bundled onto the Boeing COI contract in support of the F-15 in order to determine the work performed by small businesses versus non-small businesses prior to and after the DLA awarded the bundled work in 2017. We reviewed small business qualifications for 725 contractors with completed purchase order requests for the 2,550 items bundled onto the Boeing COI contract in support of the F-15 depot work from May 19, 2011, through May 19, 2020. We selected May 2011 through May 2020 to analyze small business participation because:

- May 2011 through May 2014 were the 3 years for which DLA officials conducted market research supporting their bundling determination;
- May 2014 through May 2017 were the 3 years prior to the 2,550 parts being bundled on the Boeing COI contract (May 19, 2017); and
- May 2017 through May 2020 were the 3 years after the parts were bundled on the Boeing COI contract.

We determined that 611 out of 725 contractors qualified as small businesses and had provided parts in support of the F-15 Depot Support work from May 19, 2011, through May 19, 2020, for a total dollar value of \$106.1 million. Prior to the bundling of the F-15 parts onto the COI contract, from May 19, 2011, through May 19, 2017, 608 out of 611 small business contractors provided those parts for a total dollar value of \$104.8 million. After the bundling of the F-15 parts, from May 20, 2017, through May 19, 2020, only 38 out of 611 small business contractors provided parts for the F-15 as prime contractors, for a total dollar value of \$1.4 million.

Furthermore, bundling F-15 work on the Boeing COI contract significantly reduced small business participation. Actual small business participation for the 2,550 F-15 parts bundled on the COI contract was reduced by 61 percent, from \$52.4 million for the 3 years prior to bundling work on the COI contract in 2017, to \$20.7 million as of July 2020. We calculated \$52.4 million as the historical small business participation from May 20, 2014, through May 19, 2017. The \$20.7 million represents actual small business participation for F-15 work under the Boeing COI contract, from May 2017 through July 2020, as reported by the DLA. Bundling eliminates opportunities for small businesses to participate as prime contractors; therefore, it is important to set small business participation goals that are representative of historical work to ensure that small businesses have a fair and equitable opportunity to compete for Federal procurement opportunities. The DLA should set Boeing small business goals at levels representative of previous small business participation for future bundled work and exercised options on contract SPRPA1-14-D-002U.

Subcontracting Plan and Contractor Reporting Not Adequate for Oversight

The Boeing COI subcontracting plan did not describe the methods used to develop the subcontracting goals, as required by the FAR.²⁵ When contracts exceed \$700,000, FAR 19.702 requires a subcontracting plan to describe the types of supplies or services, the subcontracting goals expressed in dollar values, and the methods used to develop the goals and identify sources. The Boeing COI subcontracting plan broke out goals for proposed and awarded efforts and described the subcontracting goals by CLIN. For example, Table 5 shows the subcontracting goals for awarded amounts under CLINs 0004 and 0026.

CLIN	Large Business Dollars	Large Business Percent	Small Business Dollars	Small Business Percent	Total Dollars
CLIN 0004, F-15 Depot Support	\$143,040,475	84.30	\$26,634,609	15.70	\$169,675,083
CLIN 0026, F/A-18 Depot Support	\$200,620,298	77.82	\$57,172,498	22.28	\$257,792,796

Source: The DoD OIG.

The plan stated that "the estimated values for all known and anticipated requirements were tabulated and percentages derived," but provided no additional information regarding how goals were developed. The subcontracting plans we reviewed also provided an overall summary of subcontracting goals for awarded effort rolled up into total contract dollars for large and small business each time a new version of the subcontracting plan was produced. Once the contracting officer

²⁵ FAR Part 19, "Small Business Programs," Subpart 19.7, "The Small Business Subcontracting Program," Section 19.702, "Statutory Requirements."

approves the subcontracting plan, it should become a material part of the contract. The subcontracting plan was revised 11 times after the initial version was released to incorporate work added to the contract. The contracting officer provided the three most recent subcontracting plan revisions but could not locate the initial subcontracting plan or eight of the subsequent versions. Therefore, we were unable to determine if the methods to develop subcontracting goals were described in the original or previous versions of the subcontracting plan. The contracting officer did not note this deficiency in his review of the subcontracting plan before incorporating it as part of the contract.

The bundling analysis for the F-15 work stated that under the COI program, Boeing is incentivized to increase workload to the small business sector and the requirement for compliance in small business subcontracting will be closely monitored. This is echoed in Boeing's subcontracting plan, where Boeing agreed to provide periodic reports on subcontractor performance to enable the Government to evaluate Boeing's compliance with the subcontracting plan. However, the DLA cannot compare established goals in the subcontracting plan to Boeing performance reports because the reporting system does not report at the same level of detail as the subcontracting plan. The subcontracting plan establishes and contains small business goals for each CLIN, while the performance

If Boeing is not held accountable to its subcontracting goals at the CLIN level, small business participation could be further impacted. reports provide performance for the overall contract. This indicates that the DLA is not using the subcontracting plan as a tool to promote or hold Boeing accountable for engaging small business for all CLINs on the COI contract. Furthermore, if the DLA does not have visibility of

small business performance for the bundled F-15 work, officials cannot determine if small business participation needs to be improved or not. If Boeing is not held accountable to its subcontracting goals at the CLIN level, small business participation could be further impacted.

In October 2020, DLA officials provided documentation showing that they track subcontracting performance for the F/A-18 at the CLIN level, which DLA officials explained was due to an incentives and disincentives clause included in the work. The DLA included this unique contract clause as part of the bundled F/A-18 depot work to incentivize Boeing to exceed the small business goals established in the subcontracting plan as well as apply a disincentive if small business goals are not achieved. According to DLA contracting officials, the incentive and disincentive clause for F/A-18 depot work was implemented to alleviate SBA PCR concerns with bundling of the F/A-18 depot work. According to the contract, Boeing receives a 0.5 to 3 percent incentive for exceeding the small business goal of
22.18 percent. Boeing also receives a disincentive of 0.5 to 3 percent if they do not achieve their small business goal. DLA contracting officials stated that they will calculate this incentive or disincentive at the end of the base period for the F/A-18 depot work, in 2022.

In September 2020, DLA officials stated that they plan to not exercise the option for the CLIN 0004 F-15 work, but instead plan on awarding the follow-on F-15 work under a different contract action on the Boeing COI contract. DLA officials also provided draft planning documentation to include an incentive and disincentive clause, similar to the F/A-18 depot work, for the new F-15 work to be awarded under the Boeing COI contract. DLA officials estimated that the new work should be awarded in May 2022. Additionally, DLA officials explained that they plan to track subcontractor performance at the CLIN level for future work on the Boeing COI contract, only when that work includes an incentives and disincentives clause. The DLA should include contract incentives and disincentives for meeting and exceeding small business goals on all future bundled work. Additionally, the DLA should review subcontracting performance for all CLINs on an annual basis on contract SPRPA1-14-D-002U to determine actual compliance with small business goals.

Recommendations, Management Comments, and Our Response

Recommendation B.1

We recommend that the Defense Logistics Agency Aviation Commander direct contracting officials to:

a. Re-evaluate their methodology for determining historical work done in potential bundled areas. Specifically, officials should establish a methodology to determine the reliability of the data used in bundling analysis.

Defense Logistics Agency Comments

The DLA Acquisition Director, responding for the DLA Aviation Commander, agreed with the recommendation, stating that the DLA has a bundling checklist that directs the acquisition team to obtain 3 years of contract history in order to accomplish the bundling analysis. The Director stated that the checklist has been updated to instruct the acquisition team to address the reliability of the data in the market research report, including the date range of the data analyzed, the full list of items analyzed, how conflicting data categories are reconciled, missing or empty data cells, and reconciling the items analyzed to the items actually placed on contract. The Director stated that the updated checklist has been provided to the acquisition workforce responsible for executing bundling analyses.

Our Response

Comments from the Director addressed all specifics of the recommendation; therefore, the recommendation is closed. DLA officials provided the updated bundling checklist, which directs the acquisition team to obtain 3 years of contract history and includes a section instructing the acquisition team to address the reliability of the data.

b. Set Boeing small business goals at levels representative of previous small business participation for future bundled work and exercised options on contract SPRPA1-14-D-002U.

Defense Logistics Agency Comments

The DLA Acquisition Director, responding for the DLA Aviation Commander, agreed with the recommendation, stating that DLA Aviation has set Boeing small business goals, by means of incorporated incentives and disincentives for the F/A-18 and the technical, engineering, and logistical services and supplies (TELSS) support for the AH-64 and CH-47. The Director stated that the current level of small business performance will be used as the baseline for future small business goals in the solicitation for each program, and that DLA Aviation will continue to consider small business incentives and disincentives in all bundled SPRPA1-14-D-002U initiatives.

The Director also stated that with regard to the F-15, the DLA has no data showing 43 percent as the historical small business percentage from the 2011-2017 timeframe. The Director stated that when the bundling analysis was conducted, a standard data report from June 13, 2014, was used and data from mid-2014 to 2017 was not available at that time. The Director provided a snapshot of the historical data that was included in the DLA's F-15 bundling analysis. The Director stated that the historical spend data shows a 1-percent change from what was negotiated with Boeing and was determined appropriate by the DLA. The Director stated that currently, in setting the small business baseline percentage, the DLA continues to use historical small business data and considers the small business subcontracting performance on sole source items included in the bundle. Additionally, the Director stated that an incentive and disincentive structure is being used against the baseline to further encourage and maximize small business participation.

Our Response

Comments from the Director addressed all specifics of the recommendation; therefore, the recommendation is closed. DLA officials provided an updated bundling checklist, which directs the acquisition team to consider historical small business participation as a starting position of the small business subcontracting goal in a bundled acquisition. Additionally, DLA officials provided documentation showing their intent to use incentives and disincentives on future bundled work.

As stated in the report, we found that DLA contracting officials used the incomplete and inaccurate data as support in determining the necessity to proceed with the bundled acquisition, and therefore, did not determine the actual impact on small businesses. Recommendation B.1.a and the Director's response addresses the DLA's methodology and reliability of data used to determine the work performed historically by small businesses.

Therefore, the Director addressed the intent of the recommendation for future bundled work with the updated bundling checklist and the intent to use incentives and disincentives.

c. Review subcontracting performance on an annual basis for all contract line item numbers on contract SPRPA1-14-D-002U to determine actual compliance with small business goals.

Defense Logistics Agency Comments

The DLA Acquisition Director, responding for the DLA Aviation Commander, agreed with the recommendation, stating that DLA Aviation has recently and will continue to use incentives and disincentives and require annual CLIN level reporting via the contract data requirements list (CDRL) to ensure receipt of actual small business participation information. The Director stated that at the conclusion of the base period for CLINs with these reporting requirements, the reported data will be validated by the DCMA and approved by the contracting officer. The Director stated that prior to the incorporation of incentives and disincentives and annual reporting by program, actual small business data was reported at the overall contract level via the electronic subcontracting reporting system and approved by the contracting officer.

Our Response

Comments from the Director addressed the specifics of the recommendation; therefore, the recommendation is closed.

Recommendation B.2

We recommend that the Defense Logistics Agency Aviation Commander develop and implement procedures on all current and future Captains of Industry contracts to:

a. Plan for substantial bundling work at the beginning of contracts and document actions to maximize small business participation, as required by Federal Acquisition Regulation Part 7, "Acquisition Planning," in the acquisition strategy.

Defense Logistics Agency Comments

The DLA Acquisition Director, responding for the DLA Aviation Commander, agreed with the recommendation, stating that the DLA Office of Small Business Programs developed and produced an online training module, in DLA's Learning Management System, which is designed to help the DLA acquisition workforce understand and implement the rules for contract consolidation and bundling in the Federal Acquisition Regulation and Defense Federal Acquisition Regulation Supplement. The Director stated that a significant portion of the training addresses the requirements in FAR Part 7 for acquisitions that involve substantial bundling, such as taking and documenting actions to maximize small business participation. The Director stated that DLA Acquisition will implement new policy requiring the acquisition team supporting any procurement involving substantial bundling to complete this training prior to approval of the written determination that the bundling is necessary and justified, which is described in FAR 7.107-3(a). The Director stated that compliance with the requirement will be delivered and tracked via the DLA Learning Management System.

Our Response

Comments from the Director addressed all specifics of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation once DLA provides the new policy requiring the acquisition team to complete the contract consolidation and bundling training developed by the DLA Office of Small Business Programs.

b. Include contract incentives and disincentives for meeting and exceeding small business goals on all future bundled work.

Defense Logistics Agency Comments

The DLA Acquisition Director, responding for the DLA Aviation Commander, partially agreed with the recommendation, stating that while DLA agrees that incentives and disincentives should be considered for acquisitions involving bundling, their inclusion may not be appropriate in every instance. The Director stated that the training referenced in Recommendation B.2.a details best practices for maximizing small business participation, including establishment of an award fee or other incentives that reward contractors for meeting or exceeding subcontracting goals, including goals for the small business socioeconomic programs. The Director stated that the training encourages the contracting officer to consider incentives and adopt other best practices, such as incorporating evaluation criteria for the source selection that incentivize the prime contractor's utilization of small businesses during performance of the contract.

Our Response

Comments from the Director addressed all specifics of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation once DLA provides the new policy requiring the acquisition team supporting any procurement involving substantial bundling to complete the contract consolidation and bundling training developed by the DLA Office of Small Business Programs.

Appendix A

Scope and Methodology

We conducted this performance audit from October 2019 through November 2020 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. The contractors were provided the opportunity to review and comment on relevant portions of the draft report, and any comments provided were considered in preparing the final report.

To determine whether the DLA's sole source, Captains of Industry strategic support contracts achieved cost savings, value, and benefits for the DoD, we interviewed and obtained documentation from DLA Aviation contracting officials and DCMA officials. Specifically, we obtained price negotiation memorandums, BCA simulation reports, metric plans, bundling analysis, and subcontracting plans. We obtained contract documentation from Electronic Document Access, obtained vendor documentation from Haystack Gold, and obtained parts data from DLA contracting officials. We visited and interviewed DLA Aviation personnel in Philadelphia, Pennsylvania, and Richmond, Virginia. In addition, we reviewed the following guidance.

- Title 13 Code of Federal Regulations (CFR) section 125.2 (2020)
- FAR Part 7, "Acquisition Planning," Subpart 7.1, "Acquisition Plans"
- FAR Part 19, "Small Business Programs," Subpart 19.7, "The Small Business Subcontracting Program"
- FAR Part 52, "Solicitation Provisions and Contract Clauses," Subpart 52.2, "Text of Provisions and Clauses"
- DoD Office of Small Business Programs, "Benefit Analysis Guidebook," October 2007
- DoD Office of the Assistant Secretary of Defense for Logistics and Material Readiness, "DoD Product Support Business Case Analysis Guidebook," April 2011

Contracts Selected for Review

DLA Aviation identified 13 COI contracts, with a total estimated value of \$55.6 billion, with sole-source manufacturers. In selecting contracts to review, we chose a high-dollar contract and a low-dollar contract.

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We selected contract SPRPA1-14-D-002U, awarded to The Boeing Company, because of the performance-based nature of the contract and because the \$16.8 billion value of the contract represents over 30 percent of the DLA Aviation COI total. Through discussions with DLA officials and based on review of the contract, we decided to review CLINs 0001, 0004, and 0026 because they are performance-based with performance and incentive metrics. According to price negotiation memorandums, the total negotiated value for these three CLINs was \$1.5 billion.

We selected contract SPE4AX-17-D-9415, awarded to Moog, Incorporated, because its estimated \$585.9 million contract value represents a smaller contract value, and the contract only includes the purchase of sole-source parts.

Determining Cost Savings on Contract SPRPA1-14-D-002U

We reviewed the price negotiation memorandums for each CLIN and increment to identify how DLA officials justified that the CLIN awards under the Boeing COI contract were cost-effective. We identified how DLA officials used BCAs to calculate cost savings estimates for the proposed CLINs. We also reviewed the elements of the BCAs and we compared the assumptions and variables among the CLIN 0001, 0004, and 0026 BCAs to identify any significant differences and obtained the DLA's explanation to support significant BCA variables. We recalculated the savings estimates for six BCAs to adjust for the cost recovery rate. We held multiple meetings with DLA officials to discuss the status of the CLIN 0001 incentive price revision process.

Determining Benefits on Contract SPRPA1-14-D-002U

To determine the MA metric requirements that the DLA incorporated into CLINs 0001, 0004, and 0026 on the Boeing COI contract, we reviewed the metric plans contained within the contract documentation. We focused our review on the MA metric because this was the main performance metric that the DLA used for monitoring its COI efforts. We compared the actual metric performance data from the DLA's Program Management Review documentation with the contract metric requirements to identify whether Boeing met the metrics, and we compared the actual metric performance data to DLA-reported pre-award baseline metric values to identify whether the metric values have improved.

Determining the Historical Value and Subcontractor Performance of Prior F-15 Work

We reviewed the contract documentation for CLIN 0004 to identify the parts bundled onto the Boeing COI contract for F-15 Depot Support work. We used Haystack Gold to search for procurement history data for the 2,550 items placed on the Boeing COI contract in support of the F-15 program. We analyzed the procurement history population and identified that 725 contractor commercial and Government entity codes had provided the 2,550 parts prior to and after being bundled onto the Boeing COI contract. We obtained contractor data, such as company name, address, and number of employees from Haystack Gold to conduct a search for qualified small businesses.

To determine if the contractor was a qualified small business, we obtained the monthly entity registration data extract from the System for Award Management database, which contained North American Industry Classification System (NAICS) codes for actively registered entities and for registrations that expired within the past 6 months. The data identified whether the contractor's registered NAICS codes were qualified for small business participation in accordance with small business size standards. For contractors with inactive or expired registrations greater than 6 months, we conducted a search for the inactive contractors using the System for Award Management, Haystack Gold, and the Dynamic Small Business Search to obtain the NAICS code and size determination previously registered when the contractor had conducted business with the Government in the past. For contractor data that did not identify whether or not their registered NAICS codes met the business size standards, we used the SBA's Table of Small Business Size Standards to verify whether or not their NAICS codes were qualified for small business participation. We identified all purchase orders from the procurement history that were completed by qualified small businesses, and determined the small business participation for the F-15 Depot Support work prior to the bundling of the 2,550 parts on the Boeing COI contract.

We also reviewed Boeing's subcontracting plan in order to determine if the subcontracting plan was developed in accordance with FAR requirements. Additionally, we reviewed an electronic subcontracting reporting system report for the F-15 Depot Support to determine if and how the DLA uses those reports to monitor and evaluate compliance with the subcontracting plan goals.

Determining Contractor Performance for Contract SPE4AX-17-D-9415

We reviewed DCMA corrective action reports along with Moog briefings to determine corrective actions Moog has taken to improve on-time delivery rates as well as Moog's progress in improving those rates to acceptable levels.

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Use of Computer-Processed Data

We used computer-processed data that we obtained from Haystack Gold, a commercial information system, and the System for Award Management, an official Government website that allows its users to check the status of an entity registration and conduct searches for existing entity registration records. We used Haystack Gold to search for procurement history data for 2,550 items placed on the Boeing COI contract in support of the F-15 program. We obtained the System for Award Management extract data package for June 2020, which contained data for actively registered entities and registrations that had expired within 6 months prior to June 2020.

We determined the reliability of information obtained from Haystack Gold by comparing this information against contract awards, modifications, and delivery order documents. We consider the Haystack Gold database reliable for the purposes of this audit.

We identified the System for Award Management as an official Government system for entity registrations. Therefore, we consider the information on entity registration and their records reliable for the purposes of this audit.

Use of Technical Assistance

The DoD OIG Quantitative Methods Division provided insight into how to review the BCAs, what concepts to become familiar with to assist in our review, and what type of information the audit team should ask the DLA to provide.

Prior Coverage

During the last 5 years, the DoD Office of Inspector General (DoD OIG) issued four reports discussing spare parts contracts. Unrestricted DoD OIG reports can be accessed at http://www.dodig.mil/reports.html/.

DoD OIG

Report No. DODIG-2019-094, "Audit of F-35 Ready-For-Issue Spare Parts and Sustainment Performance Incentive Fees," June 13, 2019

The report found that the DoD did not receive Ready-For-Issue F-35 spare parts in accordance with contract requirements and paid performance incentive fees on the sustainment contracts based on inflated and unverified F-35A aircraft availability hours. This occurred because the Joint Program Office did not conduct adequate oversight of contractor performance related to receiving F-35 spare parts and aircraft availability hours. As a result, the DoD received non-Ready-For-Issue spare parts and spent up to \$303 million in DoD labor costs since 2015, and it will continue to pay up to \$55 million annually for those parts until this issue is resolved. In addition, the DoD has potentially overpaid \$10.6 million in performance incentive fees by not independently collecting and verifying aircraft availability hours.

Report No. DODIG-2019-060, "Review of Parts Purchased From TransDigm Group, Inc.," February 25, 2019

The report found that TransDigm earned excess profit on 46 of 47 parts purchased by the DLA and the Army, and only one part purchased under one contract was awarded with a reasonable profit. Even though contracting officers followed pricing methods allowed by the FAR and Defense Federal Acquisition Regulation Supplement to determine fair and reasonable prices, including historical price analysis and competition, these methods were unreliable in identifying when TransDigm was charging excess profit. This was because prices for parts had become inflated over time, and TransDigm was the only manufacturer at the time for the majority of the parts competitively awarded.

Report No. DODIG-2016-047, "Defense Logistics Agency Did Not Appropriately Determine Fair and Reasonable Prices for F108 Engine Sole-Source Commercial Parts," February 16, 2016

The report found that the DLA Aviation contracting officer did not appropriately determine fair and reasonable prices for sole-source commercial spare parts purchased from CFM International. This occurred because the contracting officer did not conduct a sufficient price analysis. Further, the contracting officer did not question the commercial off-the-shelf classification for parts with no commercial sales, and did not require CFM to comply with a contract

requirement to submit negotiation documentation within stated timelines. As a result, the contracting officer did not request or obtain additional data necessary to determine if the maximum value contract price of nearly \$1 billion was fair and reasonable.

Report No. DODIG-2015-103, "Summary of DoD Office of Inspector General Spare-Parts Pricing Audits: Additional Guidance is Needed," March 31, 2015

The report found that the DoD did not have adequate processes to obtain fair and reasonable prices for spare parts. Since 1998, 20 of the 32 reports the DoD OIG has issued related to spare parts pricing identified that the DoD did not receive fair and reasonable prices for spare parts. This occurred because the DoD did not perform adequate cost or price analysis when it purchased commercial and noncommercial spare parts. As a result, the DoD overspent approximately \$154.9 million more than fair and reasonable prices for numerous spare parts.

Appendix B

Moog Experienced Challenges Meeting On-Time Delivery Goals

Moog has experienced challenges meeting On-Time Delivery (OTD) rates in accordance with contract requirements and DCMA strategic goals. On-time delivery rates are a measurement of how often Moog delivers orders on time, expressed as a percentage. Since 2018, Moog's average OTD rate declined from approximately 75 percent to 53 percent. The DLA delegated contract administration on the Moog contract to the DCMA. DCMA officials issued a corrective action request (CAR) in December 2019 because Moog's OTD rate degraded to a 12-month average of 53 percent, significantly lower than the objective of 90 percent.

Corrective Actions to Improve On-Time Delivery

The DCMA sends a CAR to a supplier when a contract deficiency is identified and a remedy is required. In 2019, the DCMA issued a CAR to Moog because Moog's 12-month OTD average of 53 percent did not meet the objective of the DCMA's strategic planning goal to enhance lethality through on-time delivery of quality products and ensure that the DoD receives quality products, on-time, that meet the schedule and performance requirements of the contract.

Moog responded to the CAR in January 2020 and identified root causes for the nonconformance, a corrective action plan, and estimated completion dates. Moog identified root causes across various aspects of its operations, including lack of top management involvement, Moog supply chain management, Moog shop supply prioritization, human resource management, supplier performance, and inadequate planning processes as major causes of poor OTD performance. Some of Moog's specific corrective actions included:

- re-planning the master planning schedule to resolve conflicting customer priorities and improve projected OTD dates,
- hiring additional staff,
- developing a purchasing plan to increase machine capacity, eliminate bottleneck centers, and replace aging equipment, and
- implementing a visual "appointment book" tool to help prevent over-committing repairs per month and to reconcile Moog and DCMA schedules.

According to Moog's corrective action plan, Moog is targeting an overall 3 percent OTD improvement per quarter based on completing its corrective actions. DLA officials stated that they conduct quarterly joint steering group meetings with Moog to discuss contract performance, the decline in OTD rates, Moog's corrective action plan, and its progress toward those actions.

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Corrective Action Plan Progress

As of June 2020, Moog had not demonstrated a 3 percent quarterly improvement in OTD rates since providing its corrective action plan to the DCMA in January 2020. DCMA officials provided documentation showing that Moog OTD rates fluctuated between 52 and 66 percent from January through May 2020. DCMA officials stated that Moog developed a corrective action tracker to track the progress of each action and implementation. The DCMA reviews and verifies this tracker monthly at OTD meetings to ensure Moog is making progress. In January 2021, DCMA officials explained that Moog's corrective actions were working and that Moog had met the 3 percent quarterly OTD improvement. DCMA officials stated that the CAR was closed.

Benefits of Using the Moog Contract

According to DLA officials, the Moog contract is beneficial to the DLA because delivery orders are automatically processed through the DLA's Enterprise Business System instead of manually working each purchase requirement from pre-solicitation to award. The contract contains established unit pricing and lead times to create delivery orders, which reduces administrative lead times from 90 days or more to 5 days or less. DLA officials stated that the contract also allows for growth. When planning parameters indicate that an item will be bought more frequently, the item can be added to the contract so that future procurement needs receive the same benefit of reduced administrative lead time.

DLA officials stated that the scope of the justification and approval allowed the DLA to expand the contract to cover requirements other than spare parts. Any entity within the DoD that has a requirement within scope can use the existing Moog contract, which saves effort in awarding separate contracts. For example, DLA officials stated that the Air Force is using this contract to develop a new type of repair for Air Force parts using an additive manufacturing process, called cold spraying. The cold spray repair process enables surface repairs to be made to an existing part instead of fabricating a new one. Moog is under contract to deliver prototypes using the cold spray repair process, which will then be evaluated by Air Force engineering for acceptability and approval.

Management Comments

Defense Logistics Agency

	DEFENSE LOGISTICS AGENCY HEADQUARTERS 8725 JOHN J. KINGMAN ROAD FORT BELVOIR, VIRGINIA 22060-6221	
MEMORAND	UM FOR ASSISTANT INSPECTOR GENERAL (ACQUISITION, CONTRACTING AND SUSTAINMENT)	
Lo	esponse to Office of Inspector General Draft Report "Audit of the Defense ogistics Agency's Sole Source Captains of Industry Strategic Support Contracts" roject No. D2020-D000AU-0015.000)	
DLA ap We concur wit	ppreciates the opportunity to review and comment on the entirety of the report. h the report's overall recommendations for the DLA.	
	BEEBE.MATTHE W.RICHARD EWR. в EBE Director, DLA Acquisition	
Attachment: Individual resp	ponses to each of the report recommendations	

Defense Logistics Agency (cont'd)

DOD OIG Draft Report Dated November 6, 2020 "Audit of the Defense Logistics Agency's Sole Source Captains of Industry Strategic Support Contracts (Project No. D2020-D000AU-0015.000)

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Defense Logistics Agency's Response to the DOD OIG Recommendation

RECOMMENDATION A.1: We recommend that the Defense Logistics Agency Aviation Commander, on completion of the incentive price revision process for contract line item 0001 on contract SPRPA1-14-D-002U, validate the estimates from the business case analysis to identify actual savings and compare the results to the expected cost savings documented in the price negotiation memorandum. If there are significant differences between the expected and actual cost savings, identify the reasons for the differences, and determine whether the business case analysis calculations and assumptions need to be changed in order to improve future estimates.

DLA AVIATION RESPONSE: Partially Concur. Since we initiated the Captains of Industry (COI) initiatives in 2014, DLA Aviation has made multiple improvements in our ability to estimate cost (an example is described in A.2 below). For contract line item 0001, DLA Aviation has conducted several partial reconciliations of projected demand vs. actual demand through demand band reconciliations at the end of each performance period and adjusted contractual payments accordingly. DLA Aviation also tracked actual performance against the Pre-Award Business Case Analysis (BCA) targets to ensure DLA Aviation achieved its performance goals and assessed incentives/disincentives against the baseline performance. At the conclusion of the incentive price revision process for the base period, DLA Aviation will know actual costs incurred and can compare those costs incurred to cost savings documented in the price negotiation memorandum. However, what DLA Aviation will not know with precision is what the costs would have been without the COI in place. Therefore, a direct comparison between costs incurred to the price negotiation memorandum is challenging. Intelligence gained through the demand reconciliation, performance, and incentive price revision processes has been and will be leveraged to improve future estimating techniques. Estimated Completion Date: March 31, 2021.

RECOMMENDATION A.2: We recommend that the Defense Logistics Agency Aviation Commander develop and implement procedures for all Captains of Industry contracts to validate cost savings estimates from the business case analyses based on actual performance data, identify the reasons for any variances between the expected and actual cost savings, and share information and lessons learned regarding business case analyses, to improve the estimating process across all Defense Logistics Agency Aviation contracts.

DLA AVIATION RESPONSE: Concur. DLAI 5010.06 was implemented in April 2018 requiring a Post Award BCA be conducted on all new Performance Based Logistics contracts. As a result, DLA Aviation has pursued the development of the analytical capability called Acquisition Value Tracker (AVT) to meet the DLAI 5010.06 requirement of a Post Award BCA. This tool provides information on whether the contract is meeting the performance objectives and projected Return on Investment of the Pre-Award BCA by re-baselining the Pre-Award BCA projection given actual demand observed over a contract's period of performance. This rebaselined BCA provides a fairer comparison to derive actual savings figures because it updates the business-as-usual scenario using actual demand over the period of performance, rather than a demand forecast. To quantify "actual savings," DLA Aviation must first quantify a scenario

DOD OIG Draft Report Dated November 6, 2020 "Audit of the Defense Logistics Agency's Sole Source Captains of Industry Strategic Support Contracts (Project No. D2020-D000AU-0015.000)

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where a contract under review was never awarded (i.e., business-as-usual), which forms the basis of any comparison to on-contract actuals. This hypothetical scenario is subject to assumptions, business rules, and/or data limitations, and the derivative savings are estimates. DLA Aviation believes the AVT methods and assumptions provide the best estimate of actual savings going forward. Lessons learned related to assumptions within these processes, procedures, and analyses will be shared as part of our program reviews to continuously improve our BCA and estimating processes. Estimated Completion Date: March 31, 2021.

RECOMMENDATION B.1: We recommend that the Defense Logistics Agency Aviation Commander direct contracting officials to:

RECOMMENDATION B.1.a: Re-evaluate their methodology for determining historical work done in potential bundled areas. Specifically, officials should establish a methodology to determine the reliability of the data used in bundling analysis.

DLA AVIATION RESPONSE: Concur. DLA has a Bundling Checklist that directs the acquisition team to pull three years of contract history in order to accomplish the Bundling Analysis. The guidance has been updated to instruct the acquisition team to address the reliability of the data in the market research report, including the date range of the data analyzed, the full list of items analyzed, how conflicting data categories are reconciled, missing or empty data cells, and reconciling the items analyzed to the items actually placed on contract. The updated guidance has been provided to the acquisition workforce responsible for executing Bundling Analyses (provided under separate cover). DLA considers actions already taken as meeting the intent of this recommendation and requests closure.

RECOMMENDATION B.1.b: Set Boeing small business goals at levels representative of previous small business participation for future bundled work and exercised options on contract SPRPA1-14-D-002U.

DLA AVIATION RESPONSE: Concur. DLA Aviation has set Boeing small business goals, by means of incorporated incentives/disincentives in TELSS and F-18, as previously provided to DoD OIG during the audit (and provided again under separate cover). The current level of small business performance will be utilized as the baseline for future small business goals in the solicitation for each program. DLA Aviation will continue to consider Small Business Incentives and Disincentives in all bundled SPRPA1-14-D-002U initiatives.

With regard to F-15, DLA has no data showing 43% as the historical SB percentage from the 2011-2017 timeframe. When the bundling analysis was conducted, the DRU report from 6/13/14 was used and data from mid-2014 to 2017 was not available at that time. Shown below is the historical small business data.

Defense Logistics Agency (cont'd)

DOD OIG Draft Report Dated November 6, 2020 "Audit of the Defense Logistics Agency's Sole Source Captains of Industry Strategic Support Contracts (Project No. D2020-D000AU-0015.000)

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3 Year Historical Spend (Unique Items Only)				
	Large	Small Manuf	Small Distr	Total
Consumable				
(3-yr) Suppliers	117	248	188	553
(Cage Code)				
3-yr Consumable \$	\$171,853,126	\$37,647,572	\$15,733,982	\$225,234,680
Ave. Annual \$	\$57,284,375	\$12,549,190	\$5,244,660	\$75,078,225
% Distribution	76.3%	16.7%	7%	100%

The result of this analysis shows a 1% delta from what was negotiated with Boeing and was determined appropriate by DLA.

Currently, in setting the small business baseline percentage, DLA continues to utilize historical small business spend data and considers the small business subcontracting performance on sole source items included in the bundle. Additionally, an incentive/disincentive structure is being utilized against the baseline to further encourage and maximize small business participation. DLA considers actions already taken as meeting the intent of this recommendation and requests closure.

RECOMMENDATION B.1.c: Review subcontracting performance on an annual basis for all contract line item numbers on contract SPRPA1-14-D-002U to determine actual compliance with small business goals.

DLA AVIATION RESPONSE: Concur. DLA Aviation has recently and will continue to use incentives/disincentives and require annual CLIN level reporting via CDRLs to ensure receipt of actual small business participation. At the conclusion of the base period for CLINs with these reporting requirements, the reported data will be validated by DCMA and approved by the Contracting Officer. Prior to the incorporation of incentives/disincentives and annual reporting by program, actual small business data was reported at the BCOI level via eSRS and approved by the Contracting Officer. eSRS is a mechanism to document that these processes are taking place (provided under separate cover). DLA considers actions already taken as meeting the intent of this recommendation and requests closure.

RECOMMENDATION B.2: We recommend that the Defense Logistics Agency Aviation Commander direct contracting officials to:

RECOMMENDATION B.2.a: Plan for substantial bundling work at the beginning of contracts and document actions to maximize small business participation, as required by Federal Acquisition Regulation Part 7, "Acquisition Planning," in the acquisition strategy.

DLA RESPONSE: Concur. The DLA Office of Small Business Programs proactively developed and produced an online training module, in our Learning Management System, which is designed to help DLA acquisition workforce understand and implement the rules for contract consolidation and bundling in the Federal Acquisition Regulation and Defense Federal Acquisition Regulation Supplement. A significant portion of the training addresses the

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requirements in FAR Part 7 for acquisitions that involve substantial bundling, such as taking and documenting actions to maximize small business participation. DLA Acquisition will implement new policy requiring the acquisition team supporting any procurement involving substantial bundling to complete this training prior to our approval of the written determination that the bundling is necessary and justified, which is described FAR 7.107-3(a). Compliance with the requirement will be delivered and tracked via the DLA Learning Management System. Estimated Completion Date: June 30, 2021.

RECOMMENDATION B.2.b: Include contract incentives and disincentives for meeting and exceeding small business goals on all future bundled work.

DLA RESPONSE: Partially Concur. While DLA agrees that incentives and disincentives should be considered for acquisitions involving bundling, their inclusion may not be appropriate in every instance. The training referenced above details best practices for maximizing small business participation, including establishment of an award fee or other incentives that reward contractors for meeting or exceeding subcontracting goals, including goals for the small business socioeconomic programs. The training encourages the contracting officer to consider incentives and adopt other best practices, such as incorporating evaluation criteria for the source selection that incentivize the prime contractor's utilization of small businesses during performance of the contract. DLA considers implementation of the new policy referenced above meets the intent of this recommendation. Estimated Completion Date: June 30, 2021.

Acronyms and Abbreviations

CUI

BCA	Business Case Analysis
CAR	Corrective Action Request
CLIN	Contract Line Item Number

- CFR Code of Federal Regulations
- **COI** Captains of Industry
- **DCMA** Defense Contract Management Agency
 - DLA Defense Logistics Agency
 - FAR Federal Acquisition Regulation
 - MA Material Availability
- NAICS North American Industry Classification System
 - OTD On-Time Delivery
 - PCR Procurement Center Representative
 - SBA Small Business Administration



CUI

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CUI

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