



Office of the Inspector General U.S. Department of Justice

OVERSIGHT ★ INTEGRITY ★ GUIDANCE



Audit of the Drug Enforcement Administration's Aviation Support Services Contract with L3 Vertex Aerospace



Executive Summary

Audit of the Drug Enforcement Administration's Aviation Support Services Contract with L3 Vertex Aerospace

Objectives

The Department of Justice Office of the Inspector General completed an audit of a contract awarded by the Drug Enforcement Administration (DEA) to L-3 Communications Vertex Aerospace LLC (L3) to provide for total aviation support, including aircraft and avionics maintenance, flight training, and material support, to sustain the DEA's aircraft fleet in a safe, reliable, and fully mission-capable condition worldwide.

The objectives of this audit were to determine whether the DEA adhered to federal regulations during the contract award and administration processes, assess the adequacy of the DEA's contract oversight, and determine if L3 properly invoiced the government and complied with the terms and conditions of the contract award.

Results in Brief

We found that the DEA generally complied with applicable federal regulations during the contract award and administration processes. However, we identified potential areas of improvement related to the DEA's contract oversight procedures, particularly in relation to L3's reporting of the monthly operational readiness rates and communications between the contractor, DEA oversight personnel, and DEA pilots. We also found that improvements could be made in the areas of contract type selection and delegations of duties reserved for the Contracting Officer's Representative. Finally, our review of L3's compliance with the Service Contract Labor Standards statute and invoices to the DEA did not identify any significant deficiencies.

Recommendations

Our report contains seven recommendations to assist the DEA in improving the Aviation Division's operations and enhancing the DEA's monitoring and oversight under the L3 contract. We discussed our audit findings with the DEA and L3 and have included the DEA's written response to the report in Appendix 5. L3 elected not to provide a written response. Our analysis of DEA's response and actions necessary to close the report are included in Appendix 6.

Audit Results

Our audit focused on contract number DJD-13-C-0015, which is a cost-plus-fixed-fee contract that includes a 1-year base period with four 1-year option periods. The contract was scheduled to end in December 2017, but was extended through June 30, 2018, with a total contract value of approximately \$176.6 million.

Aircraft Maintenance Program Oversight - We identified opportunities for the DEA to improve its oversight of L3's performance under the contract for aircraft maintenance. We also found that the DEA's system of controls over L3's reporting of monthly operational readiness rates was not entirely effective.

Aircraft Maintenance Program Performance Standard - We found that the DEA's calculation of the aircraft operational readiness rate, using the formula provided in the contract, did not accurately reflect the DEA's stated objective of a rate that shows a percentage of total days all aircraft were available for mission performance during the period.

DEA Pilot Survey - Our audit further identified opportunities for improvement with communication between the DEA pilots, DEA contract oversight employees, and L3 fleet management planners.

Contract Type - We determined that L3's ability to forecast contract costs, as exhibited in the negotiated contract cost ceilings, is effective and similar efforts could be used to establish fixed-price terms for at least parts of future contracts.

Assignment of Oversight Responsibilities - We determined that L3's requests for approval for days excused from the operational readiness standard were approved by the DEA's Maintenance Supervisor without approval from the Contracting Officer's Representative (COR). The contract requires COR approval for such exceptions to the performance standard.

**AUDIT OF THE DRUG ENFORCEMENT ADMINISTRATION'S
AVIATION SUPPORT SERVICES CONTRACT WITH
L3 VERTEX AEROSPACE**

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AUDIT OF THE DRUG ENFORCEMENT ADMINISTRATION'S AVIATION SUPPORT SERVICES CONTRACT WITH L3 VERTEX AEROSPACE

INTRODUCTION

The Department of Justice Office of the Inspector General (OIG) audited the Drug Enforcement Administration's (DEA) contract number DJD-13-C-0015, awarded December 20, 2012, to L-3 Communications Vertex Aerospace LLC (L3).¹ The purpose of this contract is to provide for total aviation support services, including aircraft and avionics maintenance, flight training, and material support to sustain the worldwide DEA aircraft fleet in a safe, reliable, and fully mission-capable condition. The contract provides for reimbursement of L3's allowable costs plus a fixed fee to be paid for satisfactory performance. The contract had an original estimated award value of \$126.5 million, which included a 1-year base period, beginning January 1, 2013, and four 1-year option periods. The final option period was January 1, 2017, through December 31, 2017. In November 2017, the contract was extended to June 30, 2018, with a modified contract value of approximately \$176.6 million. In September 2017, the DEA issued the pre-solicitation notice for the next contract to be awarded for future aviation maintenance needs.

Background

The DEA was created through a July 1973 Executive Order in an effort to establish a single federal agency to enforce the federal drug laws as well as consolidate and coordinate the government's drug control activities and bring to justice those organizations and persons involved in illicit drug traffic. The DEA has nearly 5,000 special agents and an annual budget of \$2.03 billion. It operates through 221 domestic offices and 89 foreign offices in 68 countries.

The DEA's Aviation Division was created in 1971 as part of DEA's predecessor, the Bureau of Narcotics and Dangerous Drugs. Its purpose is to provide aviation support for operational and intelligence elements within the DEA and the law enforcement community. According to the DEA, aviation support is critical to disrupting and dismantling drug trafficking organizations.

As of January 2017, the Aviation Division consisted of 112 Special Agent Pilots and 98 aircraft. The fleet has an average age of approximately 20 years and requires more than 1,200 maintenance events each year.² The Aviation Division annually flies about 32,000 hours in missions that support DEA operations. These missions are typically requested on short notice with few missions scheduled in advance. The DEA has no spare aircraft for mission support during maintenance

¹ L-3 Communications Vertex Aerospace LLC, a subsidiary of L3 Technologies, changed its name to L3 Vertex Aerospace in May 2016. Throughout this report we refer to the company as L3.

² An analysis of the economic impact of the age of the fleet and the resulting costs of maintaining it was beyond the scope of our review.

events. Consequently, timely inspections, accurate diagnosis, and timely repair are critical.

The Aviation Division coordinates and oversees operations from the Aviation Operations Center located at Alliance Airport in Fort Worth, Texas. The Aviation Operations Center serves as the headquarters for the Aviation Division supervisory, administrative, and contract personnel. Additionally, the Aviation Division has four Aviation Resident Offices based near Conroe, Texas; Long Beach, California; Fort Lauderdale, Florida; and Fairfield, New Jersey. Figure 1 shows a portion of the operation at Alliance Airport.

Figure 1
Aviation Operations Center



Source: DOJ OIG photograph taken on June 8, 2017.

The Aviation Division has a requirement for total aviation support services encompassing program management, aircraft and avionics maintenance support, training support, logistical support, inventory management, and administrative support. These services support law enforcement activities such as aerial surveillance, intelligence gathering, flight training, special operations, cargo delivery, personnel transport, administrative, and maintenance operations. The Aviation Division's fleet includes 12 different types of fixed and rotary-wing aircraft that necessitate the expertise of many different maintenance providers. While L3 is the current prime contractor, approximately 70 percent of the work performed under this contract is completed by subcontractors according to the DEA.

The contract for the period of January 2013 through December 2017 is a cost-plus-fixed-fee contract. Under this arrangement, the DEA pays L3 for all of its allowable costs plus a fixed fee. The contract includes performance standards in the Quality Assurance Surveillance Plan to ensure the aircraft are available.

L3 Vertex Aerospace (L3) is a private subsidiary of L3 Technologies, Inc. and is located in Madison, Mississippi. L3 provides logistics support and maintenance to the Department of Defense (DOD), and other government agencies. During fiscal year 2016, the federal government obligated approximately \$400 million for L3

contracted logistics support and maintenance, of which about \$29 million was obligated by the DEA.

OIG Audit Approach

The objectives of our audit were to: (1) determine whether the DEA adhered to federal regulations during the contract award and administration processes; (2) assess the adequacy of the DEA's contract oversight; and (3) determine if L3 properly invoiced the government and complied with the terms and conditions of the contract award. The scope of this audit, unless otherwise stated, is the period of contract performance from January 1, 2013, through December 31, 2016.

To determine whether the DEA adhered to federal regulations during the contract award and administration processes, we reviewed the Federal Acquisition Regulation (FAR) to identify compliance requirements that were relevant to the audit objectives. We reviewed the DEA's procurement files and monitoring reports to determine whether the DEA's process for contract oversight met the requirements of the FAR.

To assess the adequacy of the DEA's contract oversight, we reviewed the Quality Assurance Surveillance Plan to ensure that the DEA's oversight mechanisms would identify any performance deficiencies or areas of noncompliance. Additionally, we reviewed the contractor's reporting mechanism to determine whether L3's system of controls allowed DEA to identify areas of improvement or noncompliance before performance becomes unsatisfactory. We assessed DEA pilots' level of satisfaction with aircraft maintenance and availability under the contract with L3.

To assess whether L3 complied with the terms and conditions of the contract award, we evaluated DEA's review of monthly invoices and award-fees to L3 and completeness of contract modifications resulting in net increases or decreases of obligated funds. We also reviewed the DEA's and L3's compliance with FAR requirements related to the payment of prevailing wages to staff based on locality and L3's compliance with contract requirements related to minimum wage rates due to L3's personnel.

A detailed explanation of the audit's scope and methodology is available in Appendix 1.

AUDIT RESULTS

DEA's Contract Oversight

The DEA's L3 contract is a performance-based acquisition subject to Part 37.6 of the Federal Acquisition Regulation (FAR), which requires contracts to include performance standards that establish the performance level required by the government to meet the contract requirements. The standards must be measurable and structured to permit an assessment of the contractor's performance. For the L3 contract, the DEA established performance standards that identified the required performance levels for program management, aircraft maintenance program, flight program, and administration program.

We assessed the adequacy of the DEA's contract oversight during January 2013 to December 2016. Specifically, we reviewed the extent to which performance standards were measurable and structured to permit an assessment of L3's performance under the terms of the contract. We also reviewed the method of oversight the DEA used to determine if the performance standards were achieved. We determined that the performance standards for program management, flight program, administration program, and the aircraft maintenance program were established in accordance with the FAR. And, the method of oversight for the performance standards was properly established except for the aircraft maintenance program performance standard.

Aircraft Maintenance Program Oversight

Aircraft availability is the core operational objective of this contract. To ensure aircraft availability, the contract requires L3 to meet certain performance standards on aircraft maintenance. Specifically, the contract requires L3 to maintain a fleet-wide operational readiness rate of 80 percent and to report this rate on a monthly basis. During the audit, we reviewed the DEA's system of internal controls over L3's reporting of fleet-wide operational readiness. We identified opportunities for the Aviation Division to improve its oversight of L3's performance under the contract for total aviation support services. Specifically, we found that the DEA's system of controls over L3's reporting of monthly operational readiness rates was not entirely effective.

The daily aircraft status reports that are used by the DEA to verify L3's reported monthly operational readiness rates were not intended for this use and are based on aircraft status as of the end of each day. However, the monthly operational readiness rates are based on aircraft status as of noon, which is the contract requirement for monthly status reporting. As a result, we could not independently verify the accuracy of L3's monthly operational readiness reports using the daily status reports as configured at the time of our review.

In accordance with the contract requirements, L3 is responsible for tracking the real-time operational status of every aircraft in the DEA's fleet. The contract requires that operational readiness be calculated based on aircraft status as of noon each day. As aircraft are grounded or returned to operational status, L3's fleet

management planners record each status change in the Maintenance, Repair, and Overhaul (MRO) system.³ The timing of these status changes is essential because this data feeds directly into the contractor's monthly report to the DEA regarding its achieved operational readiness rate for the fleet.

The aircraft maintenance performance standard requires that L3 maintain a minimum aircraft operational readiness rate of 80 percent. If L3 does not maintain the minimum percentage, the Contracting Officer can deduct up to 20 percent of the monthly invoiced fixed fee amount. During the period of contract performance, L3's aircraft operational readiness rate was within 1 percentage point of the monthly minimum rate in 11 of 48 months (between 80 and 81 percent). With a fleet of 98 aircraft, small changes in the reported data could result in the aircraft operational readiness rate dropping below 80 percent, and result in deductions to the fixed fees paid by the DEA. Accordingly, it is critical that the DEA be able to verify the accuracy of the monthly operational readiness reports to properly assess the contractor performance.

However, because of variations in the production of the monthly operational readiness reports and the daily status reports, the accuracy of the monthly reports cannot be fully verified. From January 2013 through June 2017, L3's fleet management planners coordinated the aircraft maintenance schedule and routinely generated daily aircraft status reports and submitted the reports to the DEA's quality assurance staff and operational supervisors. Each daily status report identifies each aircraft down for maintenance on that day. However, the daily status reports are based on the aircraft's availability as of the close of business each day, are not routinely verified by the DEA, and are not structured to support how the DEA uses the reports.

As part of the Quality Assurance Surveillance Plan (QASP), the contract requires that L3 provide each month, a report on the operational status of DEA's fleet. The monthly operational readiness report shows the average percentage of all aircraft that were operationally ready and the total number of days each aircraft was available, not mission capable, or in a non-reporting status as of noon each day of the prior month.⁴ L3 generates the monthly operational readiness report directly from the MRO system and submits it to the DEA. We confirmed that L3's monthly operational readiness report is designed to capture the fleet's status as of noon each day in accordance with contract requirements. However, the daily status reports capture the status at the end of the day. Therefore, the daily status reports cannot be used to reconcile the monthly operational readiness rate that L3 reports to the DEA in its monthly operational readiness report. Small changes in aircraft availability during the course of the day could create inconsistencies between the monthly and daily reports. In fact, the DEA's Maintenance Supervisor indicated that the daily status reports that DEA uses to verify L3's reported monthly

³ The MRO aviation software was purchased by the DEA for use by L3 in forecasting scheduled maintenance events, estimating unscheduled maintenance events, and tracking and reporting L3's performance under the contract.

⁴ The QASP is an exhibit to the contract that outlines the DEA's plan for providing quality assurance over the products and services delivered by L3.

operational readiness rate report have shown discrepancies. Given the importance of aircraft availability to the contract's performance objectives, it is critical that the DEA have the ability to fully and accurately assess L3's compliance with this requirement.

The DEA's Maintenance Supervisor explained to us that the monthly operational readiness rates are verified in two different ways. First, the DEA's quality assurance staff verify that the number of excused days shown in L3's monthly operational readiness report match the DEA's approval records. Second, the Maintenance Supervisor recalculates each monthly operational readiness rate using the same month's daily aircraft status reports. The contract does not require the daily aircraft status reports be used to reconcile the monthly operational readiness rates. The Maintenance Supervisor acknowledged to us that it was impossible to reconcile the monthly operational readiness reports completely with the daily status reports because of the differences in timing, but he explained that the daily status reports were the best support available. The Maintenance Supervisor told us that he uses the reconciliation only as a rough gauge of validity, and he follows up whenever the reconciliation is off by more than a few percentage points to make adjustments to the operational readiness rate for the affected period. We believe this type of review provides only limited assurance of the accuracy of L3's performance reports. The monthly operational readiness report, which fulfills a contract requirement, cannot be compared to any actual DEA-verified aircraft status information because the DEA does not create any independently verified status information. Consequently, we could not verify the accuracy of the monthly report, and, we determined that the DEA's practice of using the daily reports of status at the end of the day for reconciling the monthly reports of operational readiness as of noon is unreliable.⁵

Given that the accuracy of L3's monthly operational readiness reports could not be independently verified using available supporting documents, we concluded that the DEA's system of controls over L3's reporting of monthly operational readiness rates was not entirely effective. Since aircraft availability is the core operational objective of this contract, and performance therefore is based in part on the percentage of aircraft operational readiness rate, we believe that the DEA should require L3 fleet management planners to provide daily aircraft status reports that reflect the fleet's operational status as of noon each day, which is consistent with what the contract requires for monthly operational readiness reports. Such revision would result in daily status reports that would be a useful tool in verifying the monthly operational readiness reports. After we provided a draft of our report to the DEA, the DEA agreed there was no suitable tool that identified the daily status of aircraft at the noon cutoff and took proactive steps to require L3 to establish an automatic run of the daily status report at noon each day. We recommend that the DEA revise the contract provision for daily aircraft status

⁵ We also learned that DEA was unaware that L3 made edits to the aircraft status data used to generate the monthly operational readiness report as part of its reconciliation process. After reviewing the edits, we determined that they were insignificant to the overall operational readiness rates reported to the DEA. After we notified the DEA of the edits, L3 began informing the DEA Maintenance Supervisor whenever proposed edits to an aircraft's status are made.

reports to require daily reports that reflect the fleet's operational status as of noon each day, which is consistent with the contract requirement for monthly operational readiness reports. We also recommend the DEA begin fully reconciling L3's monthly operational readiness reports with the revised daily aircraft status reports using the DEA's approval records for non-reporting time, and L3 edits to account for any discrepancies.

Aircraft Maintenance Program Performance Standard

The aircraft maintenance program performance standards assess the extent to which aircraft and special mission equipment are operationally ready for mission support.⁶ As referenced above, the contract requires that L3 maintain a minimum aircraft operational readiness rate of 80 percent. If L3 does not maintain the minimum percentage, the contracting officer can deduct up to 20 percent of the monthly invoiced fixed fee amount. If L3 maintains aircraft operational readiness rates of 85 percent or higher, the company will earn an additional 1 to 3 percent of the monthly invoiced fixed fee amount. We found that the DEA's calculation of the aircraft operational readiness rate, using the formula provided in the contract, did not accurately reflect the DEA's stated objective of a rate that shows a percentage of total days all aircraft were available for mission performance during the period. Instead, the contract formula resulted in a slightly overstated percentage of days aircraft were operationally ready. The overstatement varied from 0.87 to 3.35 percent monthly because the DEA's calculation counted certain non-operational days when the aircraft were not in service as operational days.

The DEA calculated an operational readiness rate to identify the percentage of days the aircraft were operationally ready for mission support to determine if L3 maintained the required minimum aircraft operational readiness rate. The formula established in the contract was:

$$\frac{(\# \text{ Aircraft Assigned} \times \# \text{ Days in Month}) - (\text{Non-Operational Days} - \text{Excused Days})}{(\# \text{ Aircraft Assigned} \times \# \text{ Days in Month})}$$

In the formula, "Non-Operational Days" are days that aircraft are not in service because maintenance was underway, the delivery of needed supplies was delayed, or work was underway in response to a modification or mandate directed by the DEA. "Excused Days" are days that aircraft were not in service only because work was underway in response to a modification or mandate directed by the DEA. The L3 contract specified that these excused days should not decrease the operational readiness rate. The operational readiness rate calculation stated in the contract did not exclude these excused days entirely, but effectively gave credit for

⁶ The special mission equipment is any equipment installed in aircraft for mission performance that is not required or directly related to aircraft operation. Under the contract, the deduction of fee and earning of incentive fees for special mission equipment is handled similarly to how it is handled for aircraft, based on a calculation of operational readiness. The findings presented here for aircraft operational readiness also apply to special mission equipment but, because the deduction of fee for special mission equipment is a minor portion of the overall contract, we do not separately discuss our results related to fees paid based on the operational status of special mission equipment.

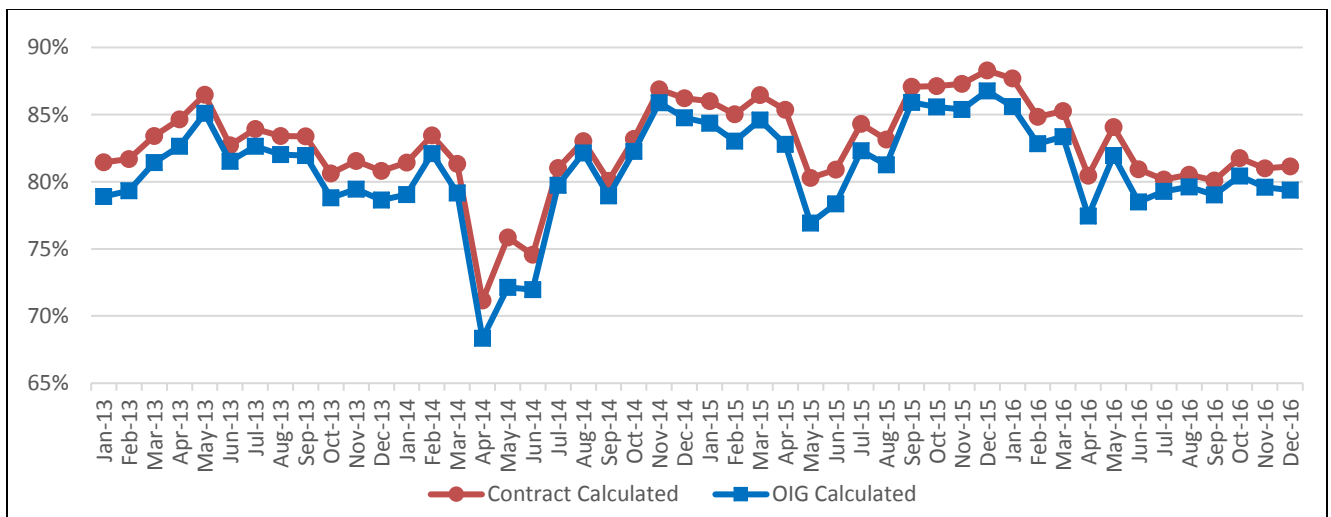
the excused days as if the aircraft was operationally ready by excluding them from the non-operational days only.

We believe that because excused days are not days that the aircraft is operational, a true readiness rate should remove excused days entirely from the available fleet used in the calculation, including from the total overall days that aircraft should be available. The formula stated in the contract calculates these aircraft operational readiness days as the product of the number of aircraft multiplied by the number of days in the month. The formula as stated in the contract removes excused days only from the non-operational days, resulting in the treatment of excused days as operational days and, consequently, overstates the aircraft operational readiness rate. A more accurate method would be to remove excused days from the entire calculation, effectively generating an operational readiness rate that more accurately represents the DEA’s objective of measuring the readiness of the available fleet. The more precise formula would be:

$$\frac{[(\# \text{ Aircraft Assigned} \times \# \text{ Days in Month}) - \text{Excused Days}] - (\text{Non-Operational Days} - \text{Excused Days})}{[(\# \text{ Aircraft Assigned} \times \# \text{ Days in Month}) - \text{Excused Days}]}$$

An example of the calculations using both formulas is contained in Appendices 2 and 3. Figure 2 shows the slight overstatement of the aircraft operational readiness rate over the 48 months from January 2013 to December 2016.

Figure 2
Comparison of Aircraft Operational Readiness Rates
under Alternative Calculation Formulas
January 2013 to December 2016



Source: OIG Analysis of the Monthly Aircraft Operational Readiness Reports for the period from January 2013 through December 2016.

Fee payments during the 48 months from January 2013 to December 2016 were made based on the formula contained in the contract and totaled \$2,343,885.65 in base fee payments, and \$29,106.07 in incentive fee payments.

However, if the contract had contained the more accurate aircraft operational readiness formula that removed excused days from the calculation, the DEA would have paid L3 \$183,000.37 less in base and incentive fees during that period. For 18 of the 48 months, the aircraft operational readiness rate based on the contract calculation exceeded the minimum 80 percent threshold when it would not have met the threshold had it been based on the formula that removed excused days from the calculation as described above. As a result, \$180,144.93 in base fees could have been deducted from invoice payments if excused days were removed entirely from the calculation. For 6 of the 48 months, the aircraft operational readiness rate based on the contract calculation exceeded the incentive threshold of 85 percent when it would have only met the minimum threshold if based on the more precise formula that removed excused days entirely from the calculation as described above. This resulted in incentive fees of \$2,855.45 that would not have been earned if the formula had properly accounted for excused days. Table 1 includes our assessment of fees had the more precise formula been used for calculating the aircraft operational readiness rate.

Table 1
Fees Resulting from Overstated Operational Readiness Rates
Based on the Contract Formula
January 2013-December 2016

Date	Performance Standard		L3 Performance		Fees Paid Because of Overstated Operational Readiness Rate	
	Minimum	Incentive	Contract Calculated	OIG Calculated	Base fees	Incentive fees
1/1/2013	80.00%	85.00%	81.45%	78.91%	\$10,495.28	
2/1/2013	80.00%	85.00%	81.69%	79.32%	\$10,478.18	
10/1/2013	80.00%	85.00%	80.61%	78.81%	\$10,036.63	
11/1/2013	80.00%	85.00%	81.54%	79.44%	\$10,036.63	
12/1/2013	80.00%	85.00%	80.81%	78.65%	\$10,036.63	
1/1/2014	80.00%	85.00%	81.43%	79.05%	\$8,970.22	
3/1/2014	80.00%	85.00%	81.32%	79.16%	\$8,970.22	
7/1/2014	80.00%	85.00%	81.02%	79.74%	\$11,008.99	
9/1/2014	80.00%	85.00%	80.07%	78.96%	\$11,008.99	
12/1/2014	80.00%	85.00%	86.21%	84.76%		\$517.44
1/1/2015	80.00%	85.00%	86.00%	84.36%		\$461.11
2/1/2015	80.00%	85.00%	85.01%	83.02%		\$469.37
3/1/2015	80.00%	85.00%	86.46%	84.59%		\$469.37
4/1/2015	80.00%	85.00%	85.36%	82.79%		\$469.37
5/1/2015	80.00%	85.00%	80.28%	76.93%	\$9,387.35	
6/1/2015	80.00%	85.00%	80.89%	78.34%	\$9,607.75	
3/1/2016	80.00%	85.00%	85.25%	83.35%		\$468.79
4/1/2016	80.00%	85.00%	80.44%	77.44%	\$9,375.76	
6/1/2016	80.00%	85.00%	80.92%	78.49%	\$9,798.80	
7/1/2016	80.00%	85.00%	80.15%	79.28%	\$10,232.30	
8/1/2016	80.00%	85.00%	80.51%	79.61%	\$10,232.26	
9/1/2016	80.00%	85.00%	80.10%	79.01%	\$10,319.27	
11/1/2016	80.00%	85.00%	80.99%	79.60%	\$10,319.27	
12/1/2016	80.00%	85.00%	81.14%	79.37%	\$9,830.40	
Total					\$180,144.93	\$2,855.45

Source: Contract No. DJD-13-C-0015 Quality Assurance Surveillance Plan, and OIG Analysis of the Monthly Aircraft Operational Readiness Reports and Contract Invoices for the period from January 2013 through December 2016.

We also evaluated the effect of using the formula as provided in the contract for special mission equipment. Although the formula resulted in a similar overstatement of the operational readiness rate, we found that use of the formula in the contract had no material effect on the base and incentive fees paid for maintenance of that equipment because excused days authorized for special mission equipment did not significantly affect L3's compliance with the required minimum threshold.

We discussed with Aviation Division officials our concerns about the formulas used to calculate aircraft operational readiness and special mission equipment. Those officials told us that they agree with our concerns and are in the process of

revising the formulas in future contracts. The Aviation Division officials told us that they do not plan to attempt to modify the current contract to incorporate an alternative aircraft operational readiness rate calculation because there was insufficient time to process a modification to the contract before the current contract concludes in December 2017. We agree that there was insufficient time to negotiate and process a modification because we brought this to the attention of the DEA very late in the life of the contract. Further, it is not clear that the potential savings achievable over the remaining life of the contract would justify the effort required to negotiate and process a modification.

Continued use of the Aviation Division's current method of oversight for the aircraft maintenance program will result in a continuation of the DEA's inability to determine if the Aircraft Maintenance Program standards were achieved and the DEA will potentially continue to pay fees for performance standards that are not met. Consequently, we recommend that the Aviation Division revise the method of oversight for the aircraft maintenance program in future contracts to incorporate an alternative aircraft operational readiness calculation that will not treat "excused" non-operational days as operational.

DEA Pilot Survey

We surveyed DEA's 112 pilots as of January 2017 to determine the pilots' level of satisfaction with aircraft maintenance and operational readiness under the contract with L3. We asked the pilots to rate the quality of maintenance work performed by L3 and subcontractors, the availability of aircraft for missions, the frequency of delayed or canceled missions because of maintenance, and the occurrence of safety hazards attributed to the maintenance work performed. We received responses from 71 DEA pilots (63 percent of the 112 pilots surveyed). Of the pilots who responded, 27 pilots (38 percent of the 71 pilots) identified little to no significant concern with aircraft maintenance. Six pilots identified safety concerns. We determined that the concerns identified by the remaining 38 pilots generally did not indicate contract noncompliance by L3, but did indicate that the pilots were often not informed about maintenance schedules and contract provisions and consequently had expectations that were not always realistic. The pilot survey responses are summarized in Appendix 4.

Because of the possible risk associated with the responses related to safety issues, we followed-up with each of the six pilots who identified safety hazard issues.

- Two pilots said they had experienced a major fluid leak after maintenance was performed by a subcontractor.
- One pilot said L3 performed maintenance, but failed to remove a protective shipping cap attached to the engine. The pilot reported the problem, and as a result a checklist titled 'Engine Pre-Installation Inspection' was developed for use at the Aviation Operation Center.
- Two pilots said a subcontractor failed to securely complete basic maintenance — properly tightening spark plugs and properly bolting down a battery cable

— causing failures of the ignition system and an electrical failure, respectively.

- One pilot said during a post maintenance test flight the elevator trim was incorrectly set. The pilot reported the problem and as a result, the subcontractor determined the cause and corrected the issue.

We determined that each of the safety issues had been previously reported to L3 or the DEA and corrective action had already been taken in each instance by either the DEA or L3.

The perceived communication issues identified by some of the pilots appear to be outside the scope of the contract provisions and primarily relate to communications within the DEA. We brought the safety concerns identified by the pilots to the attention of Aviation Division. An Aviation Division official told us they were aware of many of the concerns identified in the survey, including all of the safety issues as indicated above. The official explained that the DEA has various avenues for its Aviation Division employees to express their concerns. For safety concerns, DEA employees can report to the Safety Officer or through the Hazard Reporting System. Additionally, the DEA has a Special Agent-in-Charge (SAC) Advisory Board comprised of employees from various areas within the Aviation Division. Members are able to address concerns in greater detail in periodic meetings with the SAC. As a result of the most recent meeting, the Aviation Division initiated improvements to communication among the management, administrative, and operations staff of the Aviation Division. In addition, DEA has a suggestion box where employees can electronically submit comments and concerns. We asked the DEA how these improvements directly impact communications between DEA pilots, DEA contract oversight employees, and L3. A DEA official told us these improvements did not pertain to communication among these groups. However, in February 2018, DEA officials told us that the DEA and L3 had implemented a new practice for communications. The new practice calls for communications regarding maintenance scheduling and the status of aircraft placed in maintenance to include the pilots' field supervisors in addition to the L3 planners and DEA's contract oversight personnel. The new process also provided a checklist for pilots to provide feedback on completed maintenance. The DEA provided documentation of an example of this communication practice, which we believe should help improve communication between DEA and L3. To best ensure L3 understands the DEA's expectations for communicating maintenance plans and status, we recommend the DEA revise the contract to provide for communication that more fully informs the Aviation Division's field supervisors regarding maintenance scheduling and the status of aircraft placed in maintenance.

DEA's Award and Administration Process

The contract for the period of January 2013 through December 2017 is a cost-plus-fixed-fee contract. In such contracts, the contractor has less incentive to control costs than in fixed-price contracts. We determined that L3's ability to forecast contract costs, as exhibited in the negotiated contract cost ceilings, is

effective and similar efforts could be used to establish fixed-price terms for at least parts of future contracts.

Contract Type

Contracting officers are responsible for the selection of an appropriate contract type. The final determination of which contract type will be utilized must be made in consideration of the particular circumstances of the acquisition. However, due to the inherent risks of certain contract types, the FAR provides substantial guidance for contracting officers in making this decision, effectively establishing an order of preference.

Fixed-price contracts provide a compelling incentive for the contractor to control costs, because there is a predictable and inverse relationship between the costs of performing the contract and profits. Consequently, the FAR requires their use to the maximum extent practicable.

Cost reimbursement contracts provide for reimbursement of all allowable costs, based on an estimated cost ceiling and an explicit fee. In such contracts, the contractor inherently has less incentive to control costs. As a result, the government accepts more risk relative to contract cost. The FAR limits contracting officers' use of cost reimbursement contracts and directs that cost reimbursement contracts be used only when circumstances do not allow the agency to define its requirements sufficiently to allow for a fixed-price contract.

In situations where cost reimbursement contracts are necessary, the FAR encourages the use of incentives to the maximum extent possible to reduce the government's exposure to risk by tying the payment of fees to contractor performance. Fees may be categorized as incentive fees, which are paid based on an evaluation of contract performance using objective performance standards identified in the contract; or as award fees, which involve subjective assessments of performance. In cost-plus-fixed-fee contracts, the fee is predetermined at the inception of the contract and the contractor's performance has no effect on the amount of fees earned. Cost-plus-fixed-fee contracts shift all of the risks of cost overruns onto the government. For that reason, cost-plus-fixed-fee contracts are considered to be among the riskiest types available, and the FAR imposes stringent restrictions on their use. The DEA's contract for the period of January 2013 through December 2017 is a cost-plus-fixed-fee contract.

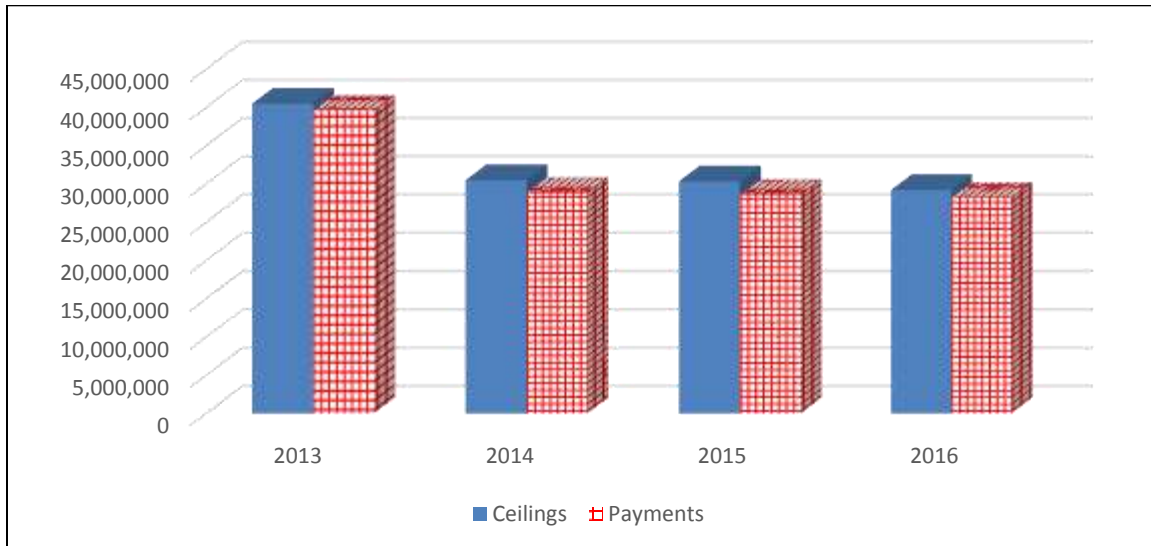
The FAR encourages agencies to continually reevaluate whether any contracts can be transitioned to firm-fixed-price or other lower-risk contract types. Specifically, FAR 16.103(c) urges contracting officers to "avoid protracted use of a cost-reimbursement or time-and-materials contract after experience provides a basis for firmer pricing." In addition, FAR 16.103(d) requires contracting officers to document a plan for the transition of subsequent contracts to fixed-price arrangements to the maximum extent practicable. Prior to the DEA's latest contract award, the Office of Federal Procurement Policy of the Office of Management and Budget again emphasized these goals in an October 27, 2009, memorandum titled "Increasing Competition and Structuring Contracts for the Best

Results.” The memo states that, even when cost reimbursement contracts are initially required because of uncertainties in performance, experience should generally enable the agency to address those uncertainties and move into a lower-risk fixed-price contract.

Contracting officers are required to document their reasoning any time a cost reimbursement contract is selected. We reviewed the DEA’s Determination and Findings document used to justify the contract type selected. The DEA Contracting Officer justified the use of the cost-plus-fixed-fee contract type by stating that continued uncertainties related to the nature and volume of both scheduled and unscheduled aircraft maintenance would not permit costs to be estimated with sufficient accuracy to support any type of fixed-price contract. The DEA’s Determination and Findings document did not document any experience gained from previous contracts to support this assertion, or any specific plans to transition to a fixed-price contract in the future.

The DEA has been operating its aviation operations since its inception and has extensive experience in aircraft maintenance requirements. The DEA has used cost-reimbursable type contracts since at least 2003. During the contract period from January 2013 to August 2017, the DEA accumulated an additional 5 years’ worth of program experience and recent cost data. We reviewed the historical costs for the contract, and noted that L3 did not request additional funding to complete the basic contract requirements. Additionally, the DEA’s payments to L3 for its allowable costs appear to have been reasonably steady over the course of the current contract. Figure 3 depicts the relationship between the negotiated cost ceilings for each contract period and the DEA’s payments for the actual costs incurred in those periods.

Figure 3
Comparison of Contract Payments to the Contract Cost Ceilings⁷



Source: Contract No. DJD-13-C-0015 Modifications and Expenditure Reports for the period from January 2013 through December 2016.

As the graph shows, the actual costs on this contract appear to have a strong relationship to the anticipated cost ceilings. This indicates that the overall forecasting of expected costs for maintenance performed under this contract has been effective within an acceptable range. For the next contract, the DEA should consider whether the use of a fixed-price type contract would be appropriate, at least for some aspects of its maintenance needs. Specifically, based on DEA’s experience and the results of our review, we believe that the DEA should consider issuing a hybrid contract with both fixed-price and cost reimbursement components. This would allow the DEA to price the more predictable routine aircraft maintenance events under a fixed-price line item, while the unexpected maintenance and repair events could remain on a cost reimbursement line. Consequently, we recommend that the DEA consider using a lower risk contract type, such as a hybrid contract with both fixed-price and cost reimbursement components, for future aviation support contracts.

Compliance with the Service Contract Labor Standards Statute

The Service Contract Labor Standards statute, previously known as the Service Contract Act of 1965, requires that employees working on federal service contracts in excess of \$2,500 be paid at least the minimum wages and fringe benefits required by law. The L3 contract exceeds this award threshold. Consequently, the contractor is required to pay employees the minimum wages and health and welfare fringe benefits specified in the applicable wage determination schedules issued by the U.S. Department of Labor. These wage determinations list

⁷ Existing obligations can generally be liquidated for up to 5 years after the expiration of the associated budgetary appropriation. Therefore, the DEA could make additional payments under these fiscal year obligations (cost ceilings), particularly for the more recent years.

the minimum wage and fringe benefit rates for different classes of laborers. The determinations are often adjusted over the term of a service contract.

During our audit, we assessed L3's compliance with rules and regulations related to the Service Contract Labor Standards statute to: determine if the company properly accounted for and paid the requisite amount of wages to its employees; ensure that the requests for price adjustment were accurate and justified; and assess whether the DEA properly reviewed and approved L3's requests for adjustment. To accomplish this, we reviewed: (1) payroll records containing service employees' actual wages, (2) the U.S. Department of Labor wage determinations containing the minimum wages, and (3) L3's claim for increased costs under the Service Contract Act as required by the exercise of Option III of the contract. We did not find any significant errors or other issues with the adjustments made as a result of wage determinations.

Assignment of Oversight Responsibilities

According to the FAR, contracting officers shall appoint a Contracting Officer's Representative (COR) to assist with oversight of contract performance and billing. A COR's responsibilities could include reviewing invoices, verifying the existence of adequate funding, and ensuring the goods or services have been received. For the L3 contract, the DEA formally assigned a DEA Aviation Division Quality Assurance Administrator to serve as the COR and two additional staff members as alternate CORs. The COR and the two assigned alternate CORs for this contract are responsible for:

- inspecting and monitoring contract performance to assure technical proficiency and compliance with the technical terms of the contract;
- reviewing and approving L3's designs, drawings, reports, and other deliverable items as may be required by the contract unless such approval is specifically reserved by the cognizant Contracting Officer;
- ensuring that L3 complies with the statement of work and other specifications contained in the contract;
- verifying that L3 has satisfactorily completed delivery of all items required under the contract;
- reviewing L3 invoices and vouchers and approving or disapproving for payment, as appropriate;
- obtaining certified funds when necessary for proposed increases, equitable adjustments, and settlements; and
- performing all acceptance tests that may be required by the contract in accordance within the time limitations stated therein.

We identified two issues regarding DEA designation of COR responsibilities. First, the Maintenance Supervisor regularly performs COR responsibilities although he has not been delegated the authority to act as a COR. The contract states that excused days are requested by the contractor to the COR and are approved with

the concurrence of the Maintenance Supervisor. The contract also states in a later section that excused days shall be approved in writing by an authorized Government Representative prior to utilization for adjusting the operational readiness rate. The Maintenance Supervisor is the recognized subject matter expert and authorizes excused days without involvement of the COR. Given that the contract is inconsistent in its requirement for approval of excused days, we recommend that the DEA clarify the contract requirement for the COR to approve excused days with the concurrence of the Maintenance Supervisor as specified in the contract.

Second, we found that one of the two alternate CORs did not maintain the COR certification in a current status in accordance with the Federal Acquisition Certification for Contracting Officer's Representatives (FAC-COR) continuing learning requirements. FAR 1.602-2 requires that the COR be certified and maintain certification in accordance with the current Office of Management and Budget memorandum.⁸ Without the appropriate training required for maintaining certification, the COR may not be qualified to perform the delegated responsibilities. We recommend that all CORs and alternate CORs or task monitors obtain and maintain the Federal Acquisition Certification as required by FAR 1.602-2(d)(3).

L3 Invoices

We reviewed the L3 invoices submitted to the DEA. We determined that the invoices submitted were in compliance with the FAR and we did not find any deficiencies beyond the deficiencies identified by the DEA in its previous review in this area.

Invoice Accuracy and FAR Compliance

We evaluated L3's compliance with the terms and conditions of the contract, which states that L3 must submit a proper invoice to the DEA in accordance with FAR 32.905(b). Of the 41 available invoices, we selected 2 totaling more than \$2.8 million to review.⁹ We then obtained the transaction detail from L3 and selected a non-statistical sample of 13 transactions from the 686 transactions within these 2 invoices to verify based on the supporting documentation. Each invoice submitted to the DEA contains indirect billing rates. Indirect costs are determined by applying the billing rates to direct costs. To evaluate the contractor's billing rates we compared the rates from L3's invoices to the billing rates approved by the cognizant federal agency, which in this case is the

⁸ Office of Federal Procurement Policy memorandum, *Revisions to the Federal Acquisition Certification for Contracting Officer's Representatives (FAC-COR)*, dated September 6, 2011.

⁹ L3 had submitted a total of 41 invoices to the DEA for contract performance during the months of June 2016 through December 2016. The sample methodology is more fully explained in Appendix 1.

Department of Defense.¹⁰ The audit team confirmed the rates contained in the L3 invoices matched the approved provisional billing rates.

We also reviewed DEA's updated process for approving invoices for payment. In February 2016, more than 9 months prior to when we began our field work, DEA's Financial Management Division conducted an internal control review of the Aviation Division. The review determined that the Aviation Division lacked adequate procedures for performing receipt, acceptance, and review of contractor invoices. Specifically, the review determined that:

- the COR did not review timesheets, material invoices, and other supporting documentation during their review of a summary invoice;
- contractors did not sign in and sign out in a printed log or other internal timekeeping system; and
- the COR did not adequately review the labor billing rates L3 used to calculate the labor costs submitted on each invoice.

The Financial Management Division recommended that the Aviation Division strengthen its internal controls over the receipt, acceptance, and review process of L3 invoices. In response, the Aviation Division required the COR to: (1) maintain an up-to-date list of names and review all the labor categories and billing rates, and (2) monitor and spot check material and stock purchases.

We obtained a copy of the Aviation Division's new invoice verification checklist to determine whether the Aviation Division had improved its process for reviewing L3 invoices. We found that the Aviation Division had taken corrective actions on the recommendations in the Financial Management Division's report. Also, as of June 30, 2017, the DEA's Financial Management Division closed the recommendation related directly to the invoice review process. Based on the corrective actions taken by the Aviation Division and the closure of the recommendation by the Financial Management Division, along with our limited review of the selected invoices, we do not take exception with the Aviation Division's review process.

¹⁰ Per FAR 42.003, the cognizant federal agency normally will be the agency with the largest dollar amount of negotiated contracts, including options. The cognizant federal agency for indirect costs is established according to the OMB Uniform Guidance at 2 C.F.R. part 200, Appendices III and IV, respectively.

CONCLUSION AND RECOMMENDATIONS

We found that the DEA generally complied with applicable federal regulations during the contract award and administration processes, but improvements could be made in the areas of contract type selection and delegations of duties reserved for the Contracting Officer's Representative. We also identified potential areas of improvement related to the DEA's contract oversight procedures, particularly in relation to L3's reporting of the monthly operational readiness rates and communications between the contractor, DEA oversight personnel, and DEA pilots. Our review of L3's compliance with the Service Contract Labor Standards statute and invoices to the DEA did not identify any significant deficiencies that had not already been addressed as to the latter by the DEA.

We recommend that the DEA:

1. Revise the contract provision for daily aircraft status reports to require daily reports that reflect the fleet's operational status as of noon each day, which is consistent with the contract requirement for monthly operational readiness reports.
2. Fully reconcile L3's monthly operational readiness reports with the revised daily aircraft status reports using the DEA's approval records for non-reporting time and L3 edits to account for any discrepancies.
3. Revise the method of oversight for the aircraft maintenance program in future contracts to incorporate an alternative aircraft operational readiness calculation that will not treat "excused" non-operational days as operational.
4. Revise the contract to provide for communication that more fully informs the Aviation Division's field supervisors regarding maintenance scheduling and the status of aircraft placed in maintenance.
5. Consider using a lower risk contract type, such as a hybrid contract with both fixed-price and cost reimbursement components, for future aviation support contracts.
6. Clarify the contract requirement for the Contracting Officer's Representative to approve excused days with the concurrence of the Maintenance Supervisor as specified in the contract.
7. Require that all Contracting Officer's Representatives and alternate Contracting Officer's Representatives or task monitors obtain and maintain the Federal Acquisition Certification as required by FAR 1.602-2(d)(3).

STATEMENT ON INTERNAL CONTROLS

As required by *Government Auditing Standards*, we tested, as appropriate, internal controls significant within the context of our audit objectives. A deficiency in an internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to timely prevent or detect: (1) impairments to the effectiveness and efficiency of operations, (2) misstatements in financial or performance information, or (3) violations of laws and regulations. Our evaluation of the Drug Enforcement Administration's (DEA) administration of contract number DJD-13-C-0015 with L3 Vertex Aerospace (L3) for total aviation support services was *not* made for the purpose of providing assurance on the entity's internal control structures as a whole. The DEA's management is responsible for the establishment and maintenance of internal controls.

As noted in the Audit Results section of this report, we identified a deficiency in the DEA's internal controls over the operational readiness rate reports that L3 submits each month in accordance with the contract's Quality Assurance Surveillance Plan. The DEA is unable to fully reconcile L3's reports to actual DEA-verified aircraft status information. Additionally, the DEA was unaware that L3 personnel frequently made edits to aircraft status records. As a result, the DEA's oversight of L3's reported aircraft operational readiness rates was limited, which increases the risk of improper payments for contract performance that cannot be verified.

Because we are not expressing an opinion on the DEA's internal control structure as a whole, this statement is intended solely for the information and use of the DEA. This restriction is not intended to limit the distribution of this report, which is a matter of public record.

STATEMENT ON COMPLIANCE WITH LAWS AND REGULATIONS

As required by *Government Auditing Standards*, we tested, as appropriate given our audit scope and objectives, selected transactions, records, procedures, and practices to obtain reasonable assurance that the DEA and L3 management complied with federal laws and regulations for which noncompliance, in our judgment, could have a material effect on the results of our audit. The DEA and L3 management are responsible for ensuring compliance with federal laws and regulations. In planning our audit, we identified the following laws and regulations that concerned the operations of the auditee and that were significant within the context of the audit objectives:

- Federal Acquisition Regulation (FAR) Part 16, *Types of Contracts*
- FAR Subpart 46.4, *Government Contract Quality Assurance*
- FAR Subpart 37.603, *Performance Standards*
- FAR 52.222-43, *Fair Labor Standards Act and Service Contract Labor Standards, Price Adjustment (Multiple Year and Option Contracts)*

Our audit included examining, on a test basis, the DEA's and L3's compliance with the aforementioned laws and regulations that could have a material effect on the DEA's and L3's operations. We interviewed L3 staff and DEA personnel, assessed internal control procedures, and examined accounting records and performance reports. As noted in the Audit Results section of this report, we found instances where the DEA did not comply with the FAR.

OBJECTIVES, SCOPE, AND METHODOLOGY

Audit Objectives

The primary objectives of our audit were to: (1) determine whether the Drug Enforcement Administration (DEA) adhered to federal regulations during the contract award and administration processes, (2) assess the adequacy of the DEA's contract oversight, and (3) determine if L3 Vertex Aerospace (L3) properly invoiced the government and complied with the terms and conditions of the contract award.

Scope and Methodology

We conducted this performance audit 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.

This was an audit of DEA contract number DJD-13-C-0015 with L3 Vertex Aerospace (L3). Our audit generally covered, but was not limited to the period January 1, 2013, through December 31, 2016; and included the DEA and L3.

To determine whether the DEA adhered to the federal regulations during contract award and administration processes, we reviewed the DEA's procurement files and monitoring reports to ascertain whether the DEA's process for contract oversight met the requirements of the FAR.

To assess the adequacy of the DEA's contract oversight, we reviewed the Quality Assurance Surveillance Plan to determine whether the DEA's oversight mechanisms would identify any performance deficiencies or areas of noncompliance. We also reviewed L3's reporting mechanism to determine whether its L3 system of controls allowed it to identify areas of improvement or noncompliance before performance becomes unsatisfactory.

To ensure compliance with contract requirements regarding billings, we evaluated the DEA's review of monthly invoices and award-fees to L3 and completeness of contract modifications resulting in net increases or decreases of obligated funds. We also reviewed the DEA's and L3's compliance with Federal Acquisition Regulation (FAR) requirements related to the payment of prevailing wages to staff based on locality and L3's compliance with contract requirements related to minimum wage rates due to L3's personnel.

Analysis of Aircraft Operational Readiness Report

We reviewed the contract calculated aircraft operational readiness reports, provided by the DEA, to identify the effect of the contract operational readiness

report formula revision on the monthly aircraft operational readiness rate. To determine the effect of the contract operational readiness report formula revision, we reviewed the monthly aircraft operational readiness reports from January 2013 through December 2016. We calculated the contract monthly aircraft operational readiness rate based on the aircraft operational readiness report formula stated in the contract. We calculated the OIG's assessment of the actual monthly aircraft operational readiness rate based on the OIG's suggested aircraft operational readiness report formula.¹¹ We compared the contract aircraft operational readiness rates to the OIG monthly aircraft operational readiness rates. Then we compared the OIG monthly aircraft operational readiness rates that were less than the contract monthly aircraft operational readiness rate to the contract requirements. Finally, we calculated the base fee deductions and incentive fee earned based on the contract calculated aircraft operational readiness rate to identify the effect of the contract aircraft operational readiness report formula revision.

Analysis of Special Mission Equipment Operational Readiness Report

We reviewed the contract calculated special mission equipment operational readiness reports, provided by the DEA, to identify the effect of the contract operational readiness report formula revision on the monthly operational readiness rate. To determine the effect of the contract operational readiness report formula revision, we reviewed the monthly special mission equipment operational readiness reports from July 2013 through December 2016.¹² We calculated the contract monthly operational readiness rate based on the contract operational readiness report formula. We calculated the OIG's assessment of the actual monthly operational readiness rate based on the OIG's suggested operational readiness report formula. We compared the contract operational readiness rates to the OIG monthly operational readiness rates. Then we compared the OIG calculated monthly operational readiness rates that were less than the contract calculated monthly operational readiness rate to the contract requirements. Finally, we calculated the base fee deductions and incentive fees earned based on the contract calculated operational readiness rate to identify the effect of the contract operational readiness report formula revision.

Analysis of Invoices

L3 had submitted a total of 41 invoices to the DEA for contract performance during the months of June 2016 through December 2016. These invoices represented obligations of over \$17 million. During our audit, we determined that the procedures the DEA used to review invoices changed in June 2016. Therefore, we used the period of June 2016 through December 2016 as our universe. Using professional judgment, we selected a nonstatistical sample of two invoices totaling

¹¹ The OIG aircraft operational readiness report formula removed the excused non-operational days from the entire calculation, as detailed in the body of this report.

¹² The contractual requirement to provide formal monthly special mission equipment operational readiness reports was not established until July 2013.

more than \$2.8 million for testing. We reviewed each of the sample invoices to verify the accuracy and appropriateness of the contractor's calculations. We selected a non-statistical sample of 13 transactions from the 686 transactions within the 2 invoices to verify to supporting documentation. However, this nonstatistical sample design does not allow for a projection of the sample results to all invoices.

Review of Compliance with the Service Contract Labor Standards Statute

We assessed L3's compliance with the Service Contract Labor Standards statute by assessing whether the contractor's employees were paid the requisite amounts of wages; whether L3's request for equitable adjustment to the contract price were accurate and justified; and whether the DEA properly reviewed, approved, and monitored L3's requests for reimbursement. To accomplish this, we obtained payroll records for L3 employees' actual wages, U.S. Department of Labor wage determinations containing the minimum required wage rates, and the contractor's request for equitable adjustments sent to the DEA.

To verify the amounts claimed in L3's request for equitable adjustment, we reviewed the wage rate increases that were required by revisions to the U.S. Department of Labor wage determinations and confirmed that the contractor's payroll records reflected the higher wage rates, effective as of the beginning of the contract year. We also confirmed that the contractor accurately calculated its reimbursement from the DEA, and that the request for reimbursement was justified by actual increases in the costs resulting from revisions to the wage determinations.

Pilot Survey

We developed a series of survey questions that evaluated the quality of maintenance work performed by L3 and subcontractors, maintenance delays and the causes for such delays, safety hazards, and interruptions of enforcement missions resulting from maintenance delays and aircraft availability. We issued the survey by email to all 112 DEA pilots on March 21, 2017. From March 21, 2017 to April 4, 2017, we received 71 DEA pilots' responses to the survey resulting in a response rate of about 63 percent. We followed up with each pilot that identified a safety hazard issue to obtain specifics on the known corrective actions and to conclude what was done to address the safety hazard.

APPENDIX 2

AIRCRAFT OPERATIONAL READINESS REPORT USING CONTRACT AND OIG CALCULATIONS

Contract Calculation:

$$\frac{\# \text{ Aircraft Assigned} \times \# \text{ Days in Month} - (\text{Non-Operational Days} - \text{Excused Days})}{(\# \text{ Aircraft Assigned} \times \# \text{ Days in Month})}$$

Example:

10 Aircraft Assigned
30 Days in Month
55 Total Non-Operational Maintenance Days
10 Total Non-Operational Supply Days
5 Total Authorized Excused Maintenance and/or Supply Days

$$\begin{aligned} \text{Operationally ready} &-- \frac{(10 \times 30) - (55+10-5)}{(10 \times 30)} = \frac{240}{300} = 80 \text{ percent} \\ \text{Total aircraft days available} &= 300 \end{aligned}$$

OIG Corrected Calculation:

$$\frac{[(\# \text{ Aircraft Assigned} \times \# \text{ Days in Month}) - \text{Excused Days}] - (\text{Non-Operational Days} - \text{Excused Days})}{[(\# \text{ Aircraft Assigned} \times \# \text{ Days in Month}) - \text{Excused Days}]}$$

Example:

10 Aircraft Assigned
30 Days in Month
55 Total Non-Operational Maintenance Days
10 Total Non-Operational Supply Days
5 Total Authorized Excused Maintenance and/or Supply Days

$$\begin{aligned} \text{Operationally ready} &-- \frac{[(10 \times 30) - 5] - (55+10-5)}{[(10 \times 30) - 5]} = \frac{235}{295} = 79.66 \text{ percent} \\ \text{Total aircraft days available} &= 295 \end{aligned}$$

APPENDIX 3

SPECIAL MISSION EQUIPMENT AVAILABILITY REPORT USING CONTRACT AND OIG CALCULATIONS

Contract Calculation:

$$\frac{\# \text{ Equipment Assigned} \times \# \text{ Days in Month} - (\text{Non-Operational Days} - \text{Excused Days})}{(\# \text{ Equipment Assigned} \times \# \text{ Days in Month})}$$

Example:

10 Equipment Assigned
30 Days in Month
12 Total Non-Operational Maintenance Days
5 Total Non-Operational Supply Days
2 Total Authorized Excused Maintenance and/or Supply Days

$$\begin{aligned} \text{Operationally ready} &-- \frac{(10 \times 30) - (12+5-2)}{(10 \times 30)} = \frac{285}{300} = 95 \text{ percent} \\ \text{Total aircraft days available} &= 300 \end{aligned}$$

OIG Corrected Calculation:

$$\frac{((\# \text{ Equipment Assigned} \times \# \text{ Days in Month}) - \text{Excused Days}) - (\text{Non-Operational Days} - \text{Excused Days})}{(\# \text{ Equipment Assigned} \times \# \text{ Days in Month} - \text{Excused Days})}$$

Example:

10 Equipment Assigned
30 Days in Month
12 Total Non-Operational Maintenance Days
5 Total Non-Operational Supply Days
2 Total Authorized Excused Maintenance and/or Supply Days

$$\begin{aligned} \text{Operationally ready} &-- \frac{[(10 \times 30) - 2] - (12+5-2)}{[(10 \times 30) - 2]} = \frac{283}{298} = 94.97 \text{ percent} \\ \text{Total aircraft days available} &= 298 \end{aligned}$$

DEA PILOT SURVEY RESULTS

We surveyed DEA's 112 pilots as of January 2017 to determine the pilots' level of satisfaction with aircraft maintenance and operational readiness under the contract with L3. We received responses from 71 DEA pilots (63 percent of the 112 pilots surveyed). We asked the pilots to rate the quality of maintenance work performed by L3 and subcontractors, the availability of aircraft for missions, the frequency of delayed or canceled missions because of maintenance, and the occurrence of safety hazards attributed to the maintenance work performed. While the concerns identified by the pilots did not indicate contract noncompliance by L3, the concerns did indicate that the pilots were often uninformed about maintenance schedules and contract provisions. Consequently, the pilots had expectations that were not always realistic. We determined that the responses were indicative of DEA's need to improve communication, as discussed in the Pilot Survey section of this report. The pilot survey responses are summarized below.

Communication and Coordination of Aircraft Maintenance

Twenty-five pilots (35 percent of those responding) identified concerns with L3's communication and coordination of aircraft maintenance resulting in delays of enforcement missions.

- Maintenance delays may occur because of L3's poor communication and coordination with subcontractors.
- Aircraft maintenance consistently takes longer than expected.
- L3 and the DEA appear to do little to ensure work is completed in the designated timeframe and there does not appear to be any consequence when work is delayed.
- It appears that L3 adds work based on optional (non-mandatory) Federal Aviation Administration recommendations that results in additional delays.
- Pilots are often informed at the last minute about maintenance work that is scheduled, which can result in delays or cancellations of enforcement missions.
- Communication with L3 can be difficult.

The perceived communication issues identified by the pilots appear to be outside the scope of the contract provisions and primarily relate to communications within the DEA. We brought the pilots' concerns to the attention of Aviation Division officials. An Aviation Division official explained that the DEA has various avenues for its Aviation Division employees to express their concerns. The Aviation Division recently initiated improvements to communication among the management, administrative, and operations staff of the Aviation Division.

Additional coverage of the communication concerns identified in the pilots' responses is included in the DEA Pilot Survey section of this report.

L3's Subcontracting Practices

Sixteen pilots (23 percent) identified concerns regarding L3's subcontracting practices.

- L3's subcontractor award decisions may be made based on lowest price and not best quality.
- L3 should solicit bids from competent and reputable vendors with experience in the type of maintenance work to be performed.
- L3 does not appear to consider, in its subaward decision, the time and expense incurred when pilots have to take aircraft to maintenance facilities far from their home base.
- Delays in the bid selection process can cause maintenance work to be postponed.

The contract requires that L3 establish an acquisition plan and provide qualified acquisition support personnel for obtaining supplies and services or related subcontracting efforts required within the scope of the contract. While the contract requires that L3 comply with the FAR and supplemental Department of Justice regulations, it does not require a specific process for selecting subcontractors, and L3 is allowed discretion in the determination of best value.

Maintenance Planning

Thirteen pilots (18 percent) identified concerns with L3's maintenance planning, including untimely delivery of aircraft parts and supplies.

- L3 needs to improve its forecasting of upcoming maintenance events.
- L3 appears to have a tendency to add additional work after scheduled maintenance work has been completed causing further aircraft downtime.
- Parts should be more readily available.
- L3 should find more reliable part suppliers.
- Maintenance delays can be associated with the lack of parts in inventory.

The contract allows the contractor discretion in managing maintenance events. Specifically, the contract's Quality Assurance Surveillance Plan gives the contractor responsibility for "the day-to-day operations, the delivery of aircraft maintenance, pilot training, administrative support, and all management and quality control actions required to meet the terms of the contract." We discussed the pilots' concerns related to maintenance scheduling with the DEA. A DEA official told us that the addition of unscheduled maintenance work is an inherent part of

the planning process and frequently happens because of previously unknown issues identified during the scheduled maintenance and is primarily attributed to the advanced age of many of the aircraft. As a result, we do not make any recommendations to address this concern, though it is a potential issue of which the DEA should be mindful in ensuring that its contractor does not fail to anticipate maintenance the need for which could have been foreseen.

We interviewed various DEA and L3 staff about aircraft parts and supplies. Officials from both the DEA and L3 told us that the availability of supplies and parts is a systemic problem. As noted at the outset, DEA's aircraft fleet is comprised of 12 different types of aircraft, many of which are so old that it is often difficult to locate parts for the aircraft. Stockpiling parts for these aircraft could result in excess expenses if the aircraft is replaced or fails to a point beyond repair. In addition, a DEA official told us that because of budget restraints inventory is purposefully kept at a low level. Again, these are issues that are beyond the scope of our audit of DEA's maintenance contract with L3, but they present concerns that directly impact that work and its cost that we believe DEA should be mindful of going forward.

L3's Staffing and Training

Twelve pilots (17 percent) identified concerns with L3's staffing and training.

- L3 appears to have a high attrition rate.
- L3 mechanics need adequate training in specific aircraft maintenance and mechanics' skills need better evaluation.
- Aircraft maintenance delays occurred because of a subcontractor's lack of knowledge in performing a particular maintenance request, in some instances, causing additional delays when the maintenance work had to be redone.

The contract only specifies key personnel positions that remain dedicated throughout the contract. The contract specifically lists the positions identified as key personnel: the Program Manager, Contract Negotiator, Aircraft Maintenance Manager, Aircraft Quality Control Manager, and the Flight Program Lead Pilot. Mechanics and fleet management planners are not identified in the contract as key personnel. While attrition in these positions may cause frustration for the DEA pilots, such attrition alone does not result in contract noncompliance. In addition, Aviation Division officials told us that they relied on the Federal Aviation Administration (FAA) certification of L3 and subcontractor staff as assurance that the mechanics' skills meet standard qualifications. Our review of FAA certification standards revealed that the FAA maintenance repair station certification assures that individual mechanics' certification and training are appropriate for the specific aircraft addressed in the certification. We verified L3's status as an FAA-certified maintenance repair station as well as the company's requirement that all subcontractors be certified repair stations. Based on our analysis, it appears that the risk of inadequate training or insufficient staffing was low.

Tracking and Reporting Aircraft Readiness

Seven pilots (10 percent) identified concerns with L3's tracking and reporting of aircraft readiness.

- The Maintenance, Repair, and Overhaul (MRO) system does not function efficiently and needs improvement.
- L3 blames its inability to accurately track aircraft maintenance on its antiquated tracking system.
- L3 often failed to show an aircraft in a "down" status on their aircraft status sheet when the aircraft was actually down, which resulted in an overstated aircraft operational readiness rate.

We interviewed DEA officials about the MRO system. A DEA official told us the DEA intends to replace the current MRO system and have the new system in place prior to the start date of the next contract for aircraft maintenance. In January 2017, a "sources sought notice" was posted to the Federal Business Opportunities website by the DEA seeking information from potential sources for MRO software. We evaluated L3's status reporting separately from the pilot survey. The results of that analysis are shown in the Aircraft Maintenance Program Oversight section of this report.

THE DEA'S RESPONSE TO THE DRAFT AUDIT REPORT



U. S. Department of Justice
Drug Enforcement Administration


www.dea.gov

Washington, D.C. 20537

MAR 19 2018

MEMORANDUM

TO: Jason R. Malmstrom
Assistant Inspector General
For Audit

FROM: Mary B. Schaefer 
Chief Compliance Officer
Office of Compliance

SUBJECT: DEA Response to the OIG Formal Draft Report: "Audit of the Drug Enforcement Administration's Aviation Support Services Contract with L-3 Vertex Aerospace"

The Drug Enforcement Administration (DEA) has reviewed the Department of Justice (DOJ) Office of the Inspector General's (OIG), Audit Division, report entitled "Audit of the Drug Enforcement Administration's Aviation Support Services Contract with L-3 Vertex Aerospace." DEA acknowledges and is appreciative of the role the OIG played in identifying areas of weakness to assist DEA in improving contract administration and oversight of contract procedures.

As a result of its review, the OIG determined that DEA generally complied with applicable federal regulations for work being performed under this contract and that no significant deficiencies were identified. DEA acknowledges that there is always room for improvement especially in the areas of contract oversight and contract type selections and is in the process of revising the Performance Work Statement (PWS) for the current and future contracts.

OIG made seven recommendations in this report. DEA provides the following responses to the recommendations:

Recommendation 1. Require L-3 fleet management planners to revise the daily aircraft status reports to reflect the fleet's operational status as of noon each day, which is consistent with what the contract requires for monthly operational readiness reports.

DEA RESPONSE

DEA concurs with the recommendation. DEA will revise the Performance Work Statement (PWS) to require the L-3 fleet management planners to amend the daily aircraft status report to reflect the fleet's operational status as of noon each day. Once the PWS is finalized, DEA will provide the revised PWS to the OIG.

Recommendation 2. Fully reconcile L-3's monthly operational readiness reports with the revised daily aircraft status reports using the DEA's approval records for non-reporting time and L-3 edits to account for any discrepancies.

DEA RESPONSE

DEA concurs with the recommendation. DEA is in the process of reconciling L-3's monthly operational readiness reports with the revised daily aircraft status reports. Once completed, DEA will provide OIG with a copy of the supporting reconciliation. The PWS is also currently being revised to reflect the reconciliation process. Once the PWS is finalized, DEA will provide a copy to the OIG.

Recommendation 3. Revise the method of oversight for the aircraft maintenance program in future contracts to incorporate an alternative aircraft operational readiness calculation that will not treat "excused" non-operational days as operational.

DEA RESPONSE

DEA concurs with the recommendation. DEA will revise the aircraft readiness rate calculation for future contracts and will address this in the PWS. Once the PWS is finalized, DEA will provide a copy to the OIG.

Recommendation 4: Develop and implement guidance to help facilitate better communication between the DEA pilots, DEA contract oversight employees, and L-3 fleet management planners.

DEA RESPONSE

DEA concurs with the recommendation. DEA has developed and implemented guidance to facilitate communication between DEA pilots, oversight employees and L-3 fleet management planners. DEA is in the process of revising the PWS to fully document this communication guidance.

Recommendation 5. Consider using a lower risk contract type, such as a hybrid contract with both fixed-price and cost reimbursement components, for future aviation support contracts.

DEA RESPONSE

DEA concurs with the recommendation. The DEA Contracting Officer responsible for the

solicitation of DEA's next Aviation Support Services contract will review the new requirement. Prior to the closure of the solicitation, the Contracting Officer will determine whether a hybrid contract with both fixed-price and cost reimbursement components is the appropriate contract type in accordance with FAR 16.104. DEA will document the consideration in a contemporaneous Determination and Findings in accordance with FAR 16.102(d) and 16.104.

Recommendation 6. Require the Contracting Officer's Representative to approve excused days with the concurrence of the Maintenance Supervisor as required by the contract.

DEA RESPONSE

DEA concurs with the recommendation. DEA Contracting Officer's Representatives currently approve excused days with the concurrence of the Maintenance Supervisor. DEA will further document this requirement in the PWS. Once the PWS is final, DEA will provide a copy to the OIG.

Recommendation 7. Require that all Contracting Officer's Representatives and alternate Contracting Officer's Representatives obtain and maintain the required Federal Acquisition Certification as required by FAR 1.602-2(d)(3).

DEA RESPONSE

DEA concurs with the recommendation. As required by FAR 1.602-2(d)(3), the DEA Office of Acquisition and Relocation Management (FA) has reviewed and confirmed that the Aviation Division's Contracting Officer's Representatives and alternate Contracting Officer's Representatives obtained and maintained the required Federal Acquisition Certification. DEA uses the Government-wide Federal Acquisition Institute System (FAITAS) which processes training and tracks COR certificates for all federal agencies to ensure CORS remain current with training and certification requirements as required by FAR 1.602-2(d)(3). DEA has confirmed that the Maintenance Supervisor and all COR Level I's transitioned to Contracting Officer Representative Level II's for the L-3 contract, and can evidence that the Delegation Memorandums have been issued to all required individuals on this contract in accordance with FAR 1.602-2(d)(3).

Based on this information, DEA requests closure of this recommendation upon issuance of the final report.

Thank you for the opportunity to respond and address the OIG's concerns. If you have any questions regarding this response, please contact DEA's Audit Liaison Team at 202-307-8200.

**OFFICE OF THE INSPECTOR GENERAL
ANALYSIS AND SUMMARY OF ACTIONS
NECESSARY TO CLOSE THE REPORT**

The Office of the Inspector General (OIG) provided a draft of this audit report to the Drug Enforcement Administration (DEA) and L3 Vertex Aerospace (L3). The DEA's response is incorporated in Appendix 5 of this final report. While L3 elected not to provide a written response to include in the final audit report, during the audit we discussed our findings with L3 officials and included their views, as appropriate, in the report. In response to our draft audit report, the DEA concurred with our recommendations, and as a result, the status of the audit report is resolved. The following provides the OIG analysis of the response and summary of actions necessary to close the report.

Recommendations for the DEA:

- 1. Revise the contract provision for daily aircraft status reports to require daily reports that reflect the fleet's operational status as of noon each day, which is consistent with the contract requirement for monthly operational readiness reports.**

Resolved. The DEA concurred with our recommendation. The DEA stated in its response that it will revise the Performance Work Statement (PWS) to require the L3 fleet management planners to amend the daily aircraft status report to reflect the fleet's operation status as of noon each day.

This recommendation can be closed when we receive DEA's finalized PWS to demonstrate that the daily reports reflect the fleet's operational status as of noon each day, which is consistent with the contract requirement for monthly operational readiness reports.

- 2. Fully reconcile L3's monthly operational readiness reports with the revised daily aircraft status reports using the DEA's approval records for non-reporting time, and L3 edits to account for any discrepancies.**

Resolved. The DEA concurred with our recommendation. The DEA stated in its response that it is in the process of reconciling L3's monthly operational readiness reports with the revised daily aircraft status reports. The DEA also stated that it is revising the PWS to reflect the reconciliation process.

This recommendation can be closed when we receive documentation that a monthly reconciliation is required in the DEA's verification of operational readiness reports and the revised PWS reflects the contractor's role in providing the necessary daily status reports.

- 3. Revise the method of oversight for the aircraft maintenance program in future contracts to incorporate an alternative aircraft operational readiness calculation that will not treat “excused” non-operational days as operational.**

Resolved. The DEA concurred with our recommendation. The DEA stated in its response that it will revise the aircraft readiness rate calculation for future contracts and will address this in the PWS.

This recommendation can be closed when we receive the finalized PWS including the revised aircraft readiness rate calculation.

- 4. Revise the contract to provide for communication that more fully informs the Aviation Division’s field supervisors regarding maintenance scheduling and the status of aircraft placed in maintenance.**

Resolved. The DEA concurred with our recommendation. The DEA stated in its response that it has developed and implemented guidance to facilitate communication between DEA pilots, oversight employees, and L3 fleet management planners. The DEA also stated that it is revising the PWS to fully document the communication guidance.

This recommendation can be closed when we receive the updated PWS that fully documents the new guidance for communication between DEA pilots, oversight employees, and L3 fleet management planners.

- 5. Consider using a lower risk contract type, such as a hybrid contract with both fixed-price and cost reimbursement components, for future aviation support contracts.**

Resolved. The DEA concurred with our recommendation. The DEA stated in its response that the DEA Contracting Officer responsible for the solicitation of DEA’s next Aviation Support Services contract will determine whether a hybrid contract with both fixed-price and cost reimbursement components is the appropriate contract type in accordance with FAR 16.104.

This recommendation can be closed when we receive documentation of the determination and findings for the next contract award showing consideration of the appropriate contract type.

- 6. Clarify the contract requirement for the Contracting Officer’s Representative to approve excused days with the concurrence of the Maintenance Supervisor as specified in the contract.**

Resolved. The DEA concurred with our recommendation. The DEA stated in its response that the DEA Contracting Officer’s Representatives currently

approve excused days with the concurrence of the Maintenance Supervisor. DEA also stated that it will further document this requirement in the PWS.

This recommendation can be closed when we receive the updated PWS documenting this requirement.

7. Require that all Contracting Officer's Representatives and alternate Contracting Officer's Representatives or task monitors obtain and maintain the Federal Acquisition Certification as required by FAR 1.602-2(d)(3).

Resolved. The DEA concurred with our recommendation. The DEA stated in its response that it has reviewed and confirmed that the Aviation Division's Contracting Officer's Representatives and alternate Contracting Officer's Representatives (COR) obtained and maintained the required Federal Acquisition Certification. The DEA provided documentation of current certifications for all but one of the CORs. The DEA was unable to provide a certificate for one COR who was re-certified in January 2018 because the website for the Federal Acquisition Institute Training Application System, which processes and tracks COR certificates, was not available. DEA requested closure of the recommendation.

Based on the documentation provided by the DEA, we were not able to verify the certification of one COR. Consequently, we are unable to close the recommendation.

This recommendation can be closed when we receive documentation of certification for the COR who was re-certified in January 2018 and documentation that the DEA has implemented a strategy to ensure that CORs maintain the required certification.



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