U.S. Customs and Border Protection’s Management of National Aviation Maintenance Activities

Through this management advisory, we are bringing to your attention deficiencies we identified in U.S. Customs and Border Protection’s (CBP) management of its national aviation maintenance activities, as well as the steps CBP has taken to address these deficiencies. We are making no additional recommendations in this advisory.

Background

In February 2008, CBP released a solicitation for a new contract for national aviation maintenance. The contract required maintenance support at about 50 locations for about 265 aircraft (both airplanes and helicopters) to fly approximately 100,000 hours per year. In November 2009, CBP awarded Defense Support Services, LLC (DS2) a $938 million contract to provide national aircraft maintenance and logistics support for 1 base year and nine 1-year option periods.

Since 2009, the number of CBP aircraft maintained, annual flight hours, and the average age of CBP’s aircraft fleet decreased. However, during the same period, CBP’s national aviation maintenance contract costs increased. As a result of inconsistent and unreliable data, we could not reconcile maintenance labor hours to determine if they were being accurately recorded and charged to CBP by DS2. Additionally, CBP did not have sufficient internal controls to adequately address and correct deficiencies in aircraft maintenance through its corrective action process.

Aircraft and Flight Hours Decreased While Costs Increased

From fiscal year (FY) 2010 through FY 2013, the number of CBP aircraft maintained under the contract with DS2 fell from 284 to 249, or by 13 percent; annual flight hours decreased from 93,823 to 61,320, or by 35 percent; and the average age of CBP’s aircraft also decreased. However, during the same period, CBP’s national aviation maintenance contract annual costs increased an average of 8.9 percent every year. Table 1 depicts these numbers graphically.
Table 1: CBP’s Number of Flight Hours, Cost of National Aviation Maintenance Contract, Number of Aircraft, and Average Age of Aircraft Fleet, FYs 2010–2013

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Flight Hours</th>
<th>Number of Aircraft</th>
<th>Costs ($ Millions)</th>
<th>Average Age (Years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY10</td>
<td>55,000</td>
<td>240</td>
<td>18.5</td>
<td>21.5</td>
</tr>
<tr>
<td>FY11</td>
<td>65,000</td>
<td>250</td>
<td>19.0</td>
<td>21.0</td>
</tr>
<tr>
<td>FY12</td>
<td>75,000</td>
<td>260</td>
<td>19.5</td>
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<tr>
<td>FY13</td>
<td>85,000</td>
<td>270</td>
<td>20.0</td>
<td>20.0</td>
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Source: Summary of CBP provided data.

In March 2013, CBP senior officials projected that the cost of the contract for FY 2013 was going to rise to $104.9 million. In March 2014, we reviewed all invoices paid on the contract since inception, and determined that in FY 2013, CBP actually paid $117.8 million or $14.8 million (14 percent) more than the original FY 2013 proposed cost of $103 million. By FY 2014, CBP estimated the total contract cost to have risen to $1.056 billion, or about $118 million (12.6 percent) above the original contract award of $938 million.

**Labor Hour Tracking**

During our review, we attempted to reconcile maintenance labor hours...
completed with the labor hours DS2 charged to CBP. DS2 and CBP use two separate data systems for recording maintenance labor hours. DS2’s Deltek accounting system tracks the dollar amounts charged by contract line item number, location, and job function code. Only DS2 employees enter information into Deltek. CBP uses the Electronic Maintenance Records Keeping System (EMRKS) to track maintenance actions and related historical information.

We tried to compare EMRKS labor hour data provided by CBP Supervisory Aviation Maintenance Officers (SAMO) to labor hour data provided by the contractor, but the data was inconsistent and did not match. This unreliable data precluded further analysis.

After communicating the results of our review, CBP reported it planned to examine and recommend modifications to improve verification and tracking of maintenance labor hours.

**Addressing Maintenance Deficiencies**

CBP needs to improve its policies and procedures to address aircraft maintenance deficiencies. CBP guidance for reporting maintenance deficiencies does not specify how to review and address deficiencies or when to submit Deficiency Reports (DR) to the contractor. If CBP does not properly review, address, and report maintenance deficiencies, it increases the risk of repeat occurrences of the deficiencies, potentially affecting the safety of operations.

Our analysis of 418 DRs from 13 selected operational air locations from FY 2010 through May 2013 showed that maintenance incidents occurred at multiple operational air locations. Specifically, DRs documented incidents related to air worthiness, incorrect maintenance, and maintenance-induced damage, such as:

- disconnected battery vent tubes and an unsecured generator bolt;
- installation of the wrong rotor blades on a helicopter, which was then flown; and
- improper lowering of an aircraft from jacks during maintenance, causing severe damage.

CBP guidance also does not specify when DRs need to be submitted to the contractor. By delaying notification of DS2 about deficiencies, CBP increases the risk that maintenance will be delayed and that similar costly incidents will occur. These delays and incidents could also cause safety issues.
The Office of Logistics and Maintenance in CBP’s Office of Air and Marine reported to us that it (1) planned to disseminate Corrective Action Reports more broadly via email to CBP, (2) create, and maintain a web-based folder on CBP’s intranet site, which would allow all SAMOs to access all Corrective Action Reports issued.
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