

# **ASSESSMENT OF COST ACCOUNTING SYSTEM AND PRACTICES**

*Federal Aviation Administration*

*Report Number: FI-2008-045*

*Date Issued: March 21, 2008*



# Memorandum

U.S. Department of  
Transportation  
Office of the Secretary  
of Transportation  
Office of Inspector General

Subject: ACTION: Assessment of Cost Accounting System and Practices  
Date: March 21, 2008  
Federal Aviation Administration  
Report No. FI-2008-045

From: Mark H. Zabarsky *Mark H. Zabarsky* Reply to  
Assistant Inspector General for Acquisition and Procurement Audits Attn. of: JA-60

To: Acting Federal Aviation Administrator

In accordance with the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century [(AIR-21), Public Law 106-181], we assessed the Federal Aviation Administration's (FAA) progress in implementing a cost accounting system. AIR-21 required five assessments of eight specific areas covering FAA's methods for calculating and assigning costs to specific users, including whether these methods are appropriate, reasonable, and understandable. This is our final assessment report as required by AIR-21.<sup>1</sup>

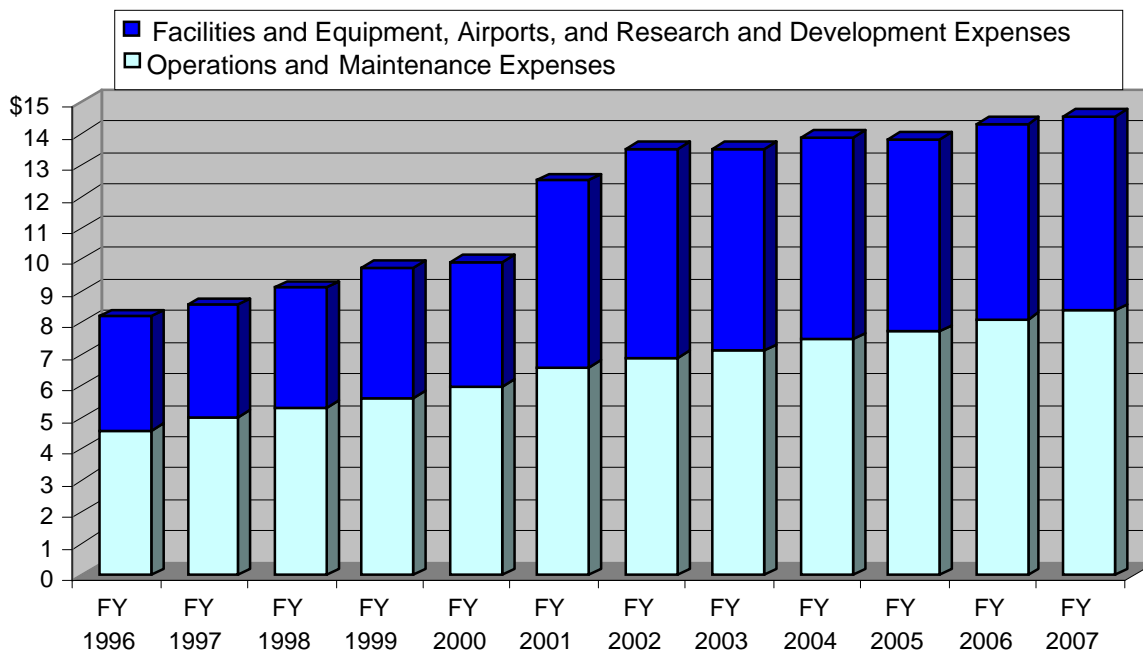
FAA began developing its cost accounting system in 1996, as directed by the Federal Aviation Reauthorization Act of 1996. The Act required FAA to develop a cost accounting system that adequately and accurately reflected the investments, operating and overhead costs, revenue, and other financial measurements and reporting aspects of its operations. In 1997, the National Civil Aviation Review Commission also recommended that FAA establish a cost accounting system to manage its resources in a businesslike manner.

Since 1996, FAA has spent more than \$66 million to complete the implementation of its cost accounting system. During this same period, FAA's total budget almost doubled, from about \$8 billion in fiscal year (FY) 1996 to about \$14 billion in FY 2007 (see figure 1). A multibillion-dollar organization such as FAA must have a cost accounting system that provides visibility into the cost of its operations to help management shape decisions and establish priorities. FAA's cost accounting

<sup>1</sup> VISION-100, the Century of Aviation Reauthorization Act (Public Law 108-176), followed AIR-21, expired at the end of September 2007 and did not retain this specific provision.

system should provide managers and executives with the information they need to identify and eliminate wasteful spending, hold or reduce operating costs, and better link financial performance to mission objectives.

**Figure 1. Growth in FAA's Annual Budget, FYs 1996–2007  
(\$ in billions)**



Source: FAA's enacted budgets and budget submissions from FY 1996 through FY 2007. The actual dollar amounts comprising figure 1 are in exhibit B.

Our audit objectives were to determine the status of the cost accounting system implementation and assess the eight areas specified in AIR-21 concerning FAA's methods of calculating and assigning costs to specific users, including whether these methods are appropriate, reasonable, and understandable.<sup>2</sup> 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. A detailed description of our audit scope and methodology is presented in exhibit A.

<sup>2</sup> This review focuses on the cost accounting system. It does not address FAA's proposed cost allocation or user fee calculation.

On December 13, 2007, we briefed FAA's Office of Financial Management staff on the results of our assessment. The charts from that briefing are included in exhibit D. We also conducted meetings with these managers to discuss our conclusions and recommendations on April 12, September 26, and October 22, 2007. The results of our assessment are summarized as follows.

## **FINDINGS**

AIR-21 requires that OIG assess eight specific areas regarding FAA's progress in implementing a congressionally-mandated cost accounting system. This report summarizes key findings concerning FAA's cost accounting and labor distribution systems as of September 30, 2007.

FAA has made significant progress since our last assessment report in November 2004. During FY 2006, it completed the implementation of the cost accounting system. Executives in all four FAA lines of business—the Air Traffic Organization (ATO), Aviation Safety, Airports, and Commercial Space—are receiving management reports from the cost accounting system on a quarterly basis. Additionally, in FY 2007, FAA finalized implementation of the labor distribution system to manage its \$6.6 billion annual labor costs—FAA's single largest cost element.

Overall, FAA's cost accounting system is properly designed to assign costs directly to responsible service organizations; however, management needs to (1) stay vigilant in order to maintain the integrity of the underlying financial data, (2) continue enhancing controls over labor cost distribution, (3) identify the full cost of facilities and use these cost data to manage operations, and (4) ensure the cost accounting processes are properly documented.

Congress is currently considering legislation to reauthorize FAA's programs through FY 2011. One legislative proposal calls for cost-based fees for aircraft certification and registration and air traffic control for overflights—those aircraft flights that neither take off nor land in the United States. FAA's cost accounting system is capable of supporting these fees.

### **Integrity of the Underlying Financial Accounting Data for Property and Related Expenses Remains Unstable**

In FY 2006, FAA received a qualified audit opinion on its financial statements because it could not adequately support the Construction in Progress (CIP) asset balance, totaling \$4.7 billion as of September 30, 2006. FAA lacked sufficient internal controls over its financial management practices for capitalizing Property, Plant, and Equipment, which included CIP asset balances.

During FY 2007, FAA executed an extensive corrective action plan, including a complete review of the CIP balance reported as of September 30, 2006. FAA's review of CIP resulted in a significant restatement of the DOT FY 2006 financial statements, including a reclassification of \$1.7 billion from CIP to in-use fixed assets and more than \$900 million from CIP to expense. Since more than \$900 million should have been recorded as expenses through FY 2006, costs associated with individual service delivery points were understated in the cost accounting system.

In its FY 2007 audit report, KPMG<sup>3</sup> again identified the processing of transactions and accounting for Property, Plant, and Equipment including the CIP account, as a material weakness. KPMG noted that FAA had not fully complied with standardized policies and procedures on unit costs, overhead allocations, and entry of transactions in the fixed asset subsidiary ledger, to ensure CIP and related Plant, Property & Equipment balances were accurate, complete, and recorded in a timely manner throughout the year. Substantial manual processes were necessary for FAA to account for and report CIP transactions occurring during FY 2007 and to determine the appropriate balances reported at year end. The accuracy of the CIP account and FAA's corrective actions were addressed in our report FI-2008-011, "DOT's Consolidated Financial Statements for FY07 and FY06," dated November 13, 2007.<sup>4</sup>

Accurate CIP data would permit ATO financial managers to gain better insight into the full costs of facilities and activities, allowing them to better identify ways to increase efficiency and productivity leading to cost savings. FAA must stay vigilant in maintaining the integrity of its underlying financial accounting data.

### **Controls Over the Distribution of Labor Costs Have Improved, Continued Enhancement Needed**

FAA has implemented its labor distribution system to manage its annual labor costs. It has corrected various control deficiencies that we reported in the past, such as allowing controllers to override system clocks when checking in and out of their shifts. Despite these improvements, we continue to find that FAA employees are not consistently charging their time to valid projects. This results in excessive labor costs being processed as "No Project" and recorded as overhead (indirect cost), instead of direct labor hours in the labor distribution system. Recording hours as "No Project" overstates overhead costs and understates costs associated with direct projects at facilities' air traffic control towers and en route centers.

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<sup>3</sup> KPMG was under contract to us and under our supervision.

<sup>4</sup> OIG products can be found on our website at: [www.oig.dot.gov](http://www.oig.dot.gov)

FAA has taken steps to reduce its “No Project” labor charges. For example, it reduced the number of labor hours not charged to valid projects from 27 percent, valued at about \$1.8 billion as of September 30, 2004, to about 4.4 percent, valued at about \$290 million, as of September 30, 2007. Although it is not realistic for a large organization such as FAA to achieve perfect accuracy, more can be done to further reduce the labor hours charged to “No Project.” Areas needing attention, sometimes resulting in inaccurate reporting of labor costs, are discussed below.

### *Employees and Supervisors Are Not Consistently Following Labor Distribution System Policies*

FAA employees are not consistently entering time charges to projects in the labor distribution system in a timely manner. FAA Order 2700.37, which established agencywide FAA policy on labor distribution reporting, requires that employee time charges be entered into the labor distribution system, noting the hours worked by project during a pay period, which a supervisor then approves. If employees’ labor hours are not entered into the system and certified by the required date, they are automatically charged to “No Project.”

FAA placed its emphasis on completing the labor distribution system for its entire organization. During this past year, management began focusing its attention on training employees to properly use the system. As of August 9, 2007, all FAA employees completed such training. Also, at the Headquarters level, FAA began tracking labor hours charged to “No Projects.” FAA needs to monitor this process to ensure employees are following its policies to enter time charges in the system in a timely manner.

### *System Interface Problem Contributing to Controllers’ Labor Hours Being Charged to “No Project”*

An interface deficiency between two computerized timekeeping systems—Air Traffic Organization (ATO) Resource Tool (ART) and CruSupport—contributed to labor costs that could not be identified by specific project. Approximately 14,500 air traffic controllers enter their time charges into ART. The ART collection system then inputs time charges into the CruSupport timekeeping system for all ATO employees.

The interface problem between the two systems occurs because ART records time charges in minutes and CruSupport converts those minutes into fractions-of-an-hour. For example, 80 minutes in ART converts to 1.33333 hours in CruSupport; however, CruSupport would only display 1.33 hours. More than 80.00 hours can accumulate per pay period when these additional fractional hours are summed, resulting in direct project charges being defaulted to the “No Project” code. This conversion problem understates time spent on direct projects at air traffic control facilities.

During our review in June 2007, FAA took action to address these problems by modifying CruSupport to add an extra decimal place when totaling hours worked per day. FAA timekeepers can now make manual adjustments using a Minute-to-Decimal Conversion Table to help ensure exactly 80 hours are computed in CruSupport. Although this will not fully correct the problem, it helps identify if 80 hours are exceeded in CruSupport. A system change request is planned to fully correct the problem; however, due to higher priorities, FAA does not have a planned date to implement it.

### *New Project Codes Are Delayed and “No Project” Charges Are Not Being Corrected Timely*

New project codes are taking up to 3 weeks to become available in the Cru-X labor distribution system. Delays exist because the processes to obtain these new codes are cumbersome. New projects first require funding approval from the Budget Office. Upon obtaining this approval, new project information is established in Delphi, the financial management system, and subsequently in the cost accounting system. Adding to administrative delays is the fact that new projects are only updated and made available once a week in the Cru-X labor distribution system. In the absence of new project codes, FAA employees charge “No Project.”

According to FAA financial managers, it takes 2 weeks to either correct or amend “No Project” charges; however, we found that it often took a great deal longer. We judgmentally selected 14 employees who had a total of 6,593 hours charged as “No Project” during FY 2006. Only 224 hours, which represented a portion of “No Project” hours recorded for one employee, were corrected within 2 weeks. None of the remaining 6,369 hours were corrected during the entire fiscal year. FAA has standard compliance reports that identify individuals with “No Project” charges; however, not all managers were aware of, or had been trained in using, the reports.

### **FAA Did Not Identify Full Cost of Individual Facilities or Use Cost Accounting Data to Manage Operations**

FAA does not accumulate the full costs of its individual facilities. Federal Accounting Standards require agencies to report the full cost of outputs by responsibility segment.<sup>5</sup> Outputs are the services or products produced and delivered by the responsibility segment or the missions or tasks performed by the segment. As such, the costs assigned to outputs are direct and indirect costs incurred within the responsibility segment. Knowing the full operating costs for

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<sup>5</sup> A responsibility segment is a component of a reporting entity that is responsible for carrying out a mission, conducting a major line of activity, or producing one or a group of related products or services. FAA defines responsibility segments as its lines of business.

each facility is essential for developing benchmarks and performance goals that will reduce costs and improve services. With reliable facility-level cost information, FAA managers could compare the full costs of similar facilities and focus on costs that should be reduced.

Also, FAA does not consistently use data in the cost accounting system to manage its operations. Using the available cost accounting information to identify opportunities to reduce costs or increase efficiency is a primary purpose of a cost accounting system.

### *FAA Did Not Fully Allocate Operating Expenses to FAA Service Facilities*

In November 2004, we reported that FAA did not properly assign more than \$1 billion in investment costs—development, asset implementation, and asset depreciation—annually to its individual facilities. As of June 30, 2007, FAA continues to report these costs, now more than \$1.5 billion, as lump-sum amounts rather than as costs of individual facilities. This practice does not comply with Federal accounting standards, which require agencies and responsibility segments to account for the full cost of their outputs and services in cost accounting systems and general purpose financial reports. The standards also require that costs not directly identifiable with a final cost objective or facility, or benefiting more than one facility, be assigned on a cause-and-effect basis or allocated as overhead to those objectives or facilities.

ATO assigns these investment costs at the service level,<sup>6</sup> one level above its individual facilities. While the service level is an integral part of ATO's operations, they represent costs at too high a level to be useful to managers for decision-making purposes. Also, the costs associated with this level are too broad to tie to a particular output, such as the services being performed at an individual air traffic control facility.

### *FAA Still Is Not Using Cost Accounting Information When Managing Its Operations*

FAA placed emphasis on completing the implementation of the cost accounting system for each line of business. Since that completion in FY 2006, FAA has made little use of this information when managing its operations and reporting on performance measures, instead relying on other information, such as budget data and Delphi data, to do so.

According to Statement of Federal Financial Accounting Standard No. 4, a primary reason for using information in the cost accounting system is to measure performance. The standard notes that such information should be used to assess

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<sup>6</sup> ATO defines service level as en-route centers, oceanic centers, terminals, and flight service stations.



how much it costs to perform whatever is being measured, thus allowing an assessment of whether that cost seems reasonable. It also allows the opportunity to establish a baseline for comparison against what it costs others to perform similar work or achieve similar results. Using the system as intended would help FAA identify ways to reduce costs and determine the most efficient practices at all locations.

### **FAA Has Not Adequately Documented Procedures Governing Cost Accounting System Processes**

System documentation is a standard information technology control often overlooked and undervalued. FAA's documentation of the cost accounting system's procedures does not contain the level of detail necessary to provide employees and users with an adequate understanding of the system. Documents such as the memorandum of agreement for each line of business defining system objectives and scope are vague and missing important information. To illustrate, the memorandums do not contain procedures for producing cyclical reports or making manual adjustments in the system. Statement of Federal Financial Accounting Standard No. 4 states, "All managerial cost accounting activities, processes, and procedures should be documented by a manual, handbook, or guidebook of applicable accounting operations. This reference should outline the applicable activities, provide instructions for procedures and practices to be followed, list the cost accounts and subsidiary accounts related to the standard general ledger, and contain examples of forms and other documents used."

As a result, system knowledge and processes, such as adjusting costs not charged to projects or lines of business, are retained by only a few key personnel within the Cost Accounting Division. By relying on individual knowledge, FAA is subjected to unnecessary risks, in the absence of these individuals, that it could be deprived of the requisite knowledge and information necessary to address system and operational issues.

FAA managers acknowledge the importance of adequate documentation and, in June 2007, contracted with an outside party to create a plain language document explaining the process for each line of business. FAA plans to complete the system documentation in early 2008.

Our recommendations to FAA are designed to ensure that employees charge valid projects, including making system changes to enhance the accuracy of data reported in the cost accounting system; ensure more equitable allocation of acquisition and indirect costs; and ensure that FAA documents and uses the cost accounting system to manage operations. Our detailed recommendations follow.

## RECOMMENDATIONS

We recommend that the Acting FAA Administrator direct the Chief Financial Officer to:

1. Strengthen procedures and controls to ensure that hours worked are charged to the proper projects, instead of “No Project,”
2. Comply with Statement of Federal Financial Accounting Standard No. 4 and use cost accounting system data to measure performance and manage operations for all lines of business, and
3. Ensure that the cost accounting system documentation complies with Federal accounting standards.

The Acting FAA Administrator should also direct the Chief Operating Officer, ATO, to:

4. Implement the system change request in the ART system to prevent hours being charged to “No Project” by March 31, 2008; and
5. Distribute all acquisition costs for ATO to each service delivery point, and report the results to FAA management.

## AGENCY COMMENTS AND OFFICE OF INSPECTOR GENERAL RESPONSE

We provided FAA with a draft of this report on December 26, 2007, and received FAA’s reply on February 20, 2008. FAA concurred with recommendations 1 through 4, and partially concurred with recommendation 5. FAA’s entire response is included as an appendix to this report.

**Recommendation 1:** FAA stated that it will train staff on the use of labor distribution system reporting tools by April 2008 and continue actions to improve timekeeping internal controls and reduce “No Project” charges. For example, FAA stated that they will continue to use labor distribution system quality assurance and finance groups to monitor labor distribution system issues and help reduce non-compliance rates for labor charging.

**Recommendation 2:** FAA stated that it is continuing efforts to use cost accounting system data to examine and improve agency operations. As a new business plan goal beginning in FY 2007, the CFO requested that each line of business report on cost efficiency metrics using the cost accounting system within

90 days of the end of each reporting quarter. The first set of “90 Day” reports were received in February 2008 and FAA provided us copies of these reports. FAA officials stated that they will continue to work with lines of business to improve the quality of the “90 Day” reports. As part of the “90 Day” reviews, the Office of Financial Management will:

- Work with lines of business to identify cost efficiency metrics using cost accounting data. For instance, comparing costs of operations between two similar units within a line of business.
- Determine the utility of using cost accounting system data in daily operations.

**Recommendation 3:** FAA stated that its cost methodology report is being updated to reflect how the cost accounting system operated in FY 2006. On February 29, 2008, FAA provided us with a copy of its FY 2006 Costing Methodology Report. FAA also stated that it is in the process of documenting the methodology used for FY 2007 cost accounting system data, including the portion of the system for the Offices of Airports and Aviation Safety. FAA plans to complete the documented version of the system for FY 2007 by June 30, 2008.

**Recommendation 4:** FAA stated that the May 1, 2008, release of CRU-X/ART will no longer convert time to decimals and the May 15, 2008, release of Cru-Support will record all time in minutes.

**Recommendation 5:** FAA stated that it will first conduct a cost-benefit analysis by June 30, 2008, to determine the additional processes and reports needed to fully distribute and manage all costs at the service delivery point. FAA stated it will notify us of their decision by July 31, 2008.

FAA also indicated that their review of the Statement of Federal Financial Accounting Standard No. 4 indicates that they have considerable flexibility defining its cost centers. FAA stated that distributing costs to its service delivery points would degrade the usefulness of the reporting structure and apply costs for which the service delivery point does not manage or is not responsible.

**OIG Response:**

Regarding recommendation 5, we agree that Statement of Federal Financial Accounting Standard No. 4 allows some flexibility in defining cost centers; however, in our opinion, FAA needs to collect and report costs by service delivery point locations to the greatest extent practical. Specific cost information for each service delivery point is necessary for managers to compare performance among delivery point locations.

## **ACTIONS REQUIRED**

FAA's response and planned actions address the intent of our recommendations. We therefore consider recommendations 1 through 5 resolved but open until FAA completes its proposed actions. We request that FAA provide us with its cost-benefit analysis on whether it intends to fully distribute and manage all costs to service delivery points.

We appreciate the courtesies and cooperation of FAA representatives during this audit. If you have any questions concerning this report, please call me at (202) 366-5225, or Terrence Letko, Program Director, at (202) 366-9917.

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cc: Chief Financial Officer  
Chief Operating Officer, ATO  
Director, Office of Financial Management  
Anthony Williams, ABU-100  
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## **EXHIBIT A. OBJECTIVES, SCOPE, AND METHODOLOGY**

AIR-21 requires that OIG assess eight specific areas regarding FAA's progress in implementing a congressionally-mandated cost accounting system. This report summarizes key findings concerning FAA's cost accounting and labor distribution systems as of September 30, 2007.

Our audit objectives were to determine the status of the cost accounting system implementation and to assess the following eight areas specified in AIR-21 concerning FAA's methods of calculating and assigning costs to specific users, including whether these methods are appropriate, reasonable, and understandable: (1) method for calculating and assigning costs to users, (2) integrity and reliability of cost input data, including source documents and data collection processes, (3) system for tracking assets, (4) methods for establishing asset values and depreciation, (5) internal controls over cost data, (6) definition of services to which it attributes costs, (7) overhead pools and the reliability of the bases used for assigning common costs, and (8) use of cost and performance management for improving performance and productivity.

We assessed control risks and compliance with applicable laws and regulations. Our assessment of control risks account for the fact that we did not specifically examine all internal controls that may be applicable to FAA's cost accounting system while the system was still under development. The analyses we performed (1) provided an understanding of the design of the internal controls, (2) determined whether the internal controls had been placed in operation, and (3) determined whether the internal controls were sufficient to assess the control risks associated with the cost accounting system. Our audit was not an audit of FAA's Cost Allocation Plan for Reauthorization and establishing user fees. Consequently, our audit results should not be used as a basis to evaluate user fees.

This report also relies on evaluations of financial, labor distribution, and cost accounting system records and prior work we performed on FAA's cost accounting system and annual financial statements. We interviewed FAA financial managers, including those responsible for developing and operating the cost accounting system; reconciled expenses, revenue, gains, and losses in Delphi to the amounts reported in the cost accounting system; floorchecked managers and staff to understand the reasonableness of the design of the system and adherence to timekeeping procedures; judgmentally tested financial transactions, tracing them to supporting records; reviewed procedures for recording transactions without cost centers; and verified whether all air traffic control facilities were accounted for in the cost accounting system.

We conducted this performance audit between March 2004 and November 2007. We performed our audit at FAA Headquarters in Washington, DC; the William J. Hughes Technical Center in Atlantic City, New Jersey; and the Mike Monroney Aeronautical Center in Oklahoma City, Oklahoma. We performed this 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. We included our response to the eight required assessment areas as part of the briefing slides at exhibit D.

**EXHIBIT B. GROWTH IN FAA'S ANNUAL BUDGET, FISCAL YEARS 1996–2007 (DOLLARS IN BILLIONS)**


<b>Fiscal Year</b>	<b>Operations and Maintenance Expenses</b>	<b>F&amp;E, Airports, and R&amp;D Expenses</b>	<b>Total Budget</b>
<b>1996</b>	\$4.6	\$3.6	\$8.2
<b>1997</b>	\$5.0	\$3.56	\$8.56
<b>1998</b>	\$5.3	\$3.81	\$9.11
<b>1999</b>	\$5.6	\$4.15	\$9.75
<b>2000</b>	\$6.0	\$3.94	\$9.94
<b>2001</b>	\$6.6	\$5.92	\$12.52
<b>2002</b>	\$6.9	\$6.63	\$13.53
<b>2003</b>	\$7.1	\$6.41	\$13.51
<b>2004</b>	\$7.48	\$6.39	\$13.87
<b>2005</b>	\$7.70	\$6.12	\$13.82
<b>2006</b>	\$8.10	\$6.21	\$14.31
<b>2007</b>	\$8.37	\$6.16	\$14.53

**EXHIBIT C. MAJOR CONTRIBUTORS TO THIS REPORT**

<b><u>NAME</u></b>	<b><u>TITLE</u></b>
Terrence Letko	Program Director
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## EXHIBIT D. BRIEFING TO FAA ON COST ACCOUNTING SYSTEM



# Assessment of FAA Cost Accounting System and Practices

Office of the Inspector General  
FAA Briefing  
December 13, 2007



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## Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (AIR-21)



- AIR-21 directed OIG assessment of FAA's progress in implementing a cost accounting system.
- AIR-21 requires assessments of eight specific areas covering FAA's methods for calculating and assigning costs to specific users, and whether these methods are appropriate, reasonable, and understandable.

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## Scope and Methodology



- Our audit steps included the following procedures:
  - Interviewed FAA financial managers, including those responsible for developing and operating the cost accounting system (CAS).
  - Reconciled expenses, revenue, gains, and losses in Delphi to the amounts reported in the cost accounting system for FY 2006.
  - Conducted floorchecks of managers and staff to understand the reasonableness of the design of the system and adherence to timekeeping procedures.

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## Scope and Methodology (cont'd)



- Judgmentally sampled transactions, traced them to supporting documentation, and reviewed procedures for recording transactions without cost centers, and other adjustments.
- Developed an understanding of the design of the internal controls and determined whether they had been placed in operation and were sufficient to assess the control risk.
- Coordinated with auditors on reviews of FAA's financial statements and CAS, and followed up on significant findings and recommendations.

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## Finding 1



### Integrity of the Underlying Financial Accounting Data for Property and Related Expenses Remains Unstable

- In FY 2006, FAA received a qualified opinion on its financial statements because it could not adequately support the Construction in Progress (CIP) asset balance totaling \$4.7 billion as of September 30, 2006.
- FAA had not institutionalized internal controls over its financial management practices for capitalizing Property, Plant, & Equipment (PP&E), which includes CIP.

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## Finding 1 (cont'd.)



- Policies and procedures lacked clear instruction on capitalizing research and development.
- Controls were lacking to ensure CIP projects are capitalized and depreciated timely after assets are in service.
- CIP balances were not reconciled to subsidiary records.
- In October 2007, FAA completed a detailed review of CIP balances and revised its FY 2006 financial statements. These procedures helped FAA receive an unqualified audit opinion for its revised FY 2006 financial statements and an unqualified opinion for FY 2007.

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## Finding 1 (cont'd.)



- As part of its review, FAA reclassified \$2.6 billion of the \$4.7 billion CIP balance due to accounting errors. Of the \$2.6 billion, \$1.7 billion should have been capitalized because assets reported in CIP were in use. Also, more than \$900 million should have been recorded as expense rather than CIP.
- Although FAA's intensive effort corrected CIP balances, the FY 2007 financial statement audit concluded a material weakness still exists because the design and implementation to ensure that CIP and related processes are operating effectively are not in place. Not all of the conditions that led to material weakness for FY 2006 were corrected.

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## Finding 1 (cont'd.)



- Not properly accounting for CIP resulted in the understatement of depreciation and acquisition expenses in CAS.
- FAA plans to contract for a review of internal controls of its capitalization process and execute a Capitalization Program Management Plan to institutionalize needed changes.

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## Finding 2



### Controls Over Distribution of Labor Costs Improved, Continued Enhancement Needed

- In FY 2006, labor costs accounted for 46 percent of FAA's total costs. FAA made significant progress by implementing labor distribution system (LDR) for employees. LDR involves recording actual hours worked on projects and enhances accuracy of labor costs assigned to facilities and activities.
- FAA has corrected all previously reported deficiencies related to how air traffic controllers account for labor in LDR.
  - Actual start times and time spent on indirect activities for controllers are being recorded.

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## Finding 2 (cont'd.)



- In FY 2004, when FAA began implementing LDR, about 27 percent or \$1.8 billion of labor was recorded as “No Project.”
- Based on our prior findings, FAA is taking action to reduce the amount of labor hours charged to an invalid “No Project” code in LDR. “No Project” charges misstate labor charges, causing overhead (indirect costs) to be higher and direct charges to be lower than actual.

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## Finding 2 (cont'd.)



- As a result of corrective actions taken, “No Project” hour charges were reduced to about 13 percent, or \$820 million, for FY 2006 and were further reduced to 4.4 percent, or about \$290 million, for FY 2007.
- Despite the improvement, we continue to identify opportunities to reduce invalid “No Project” charges by strengthening controls and correcting a design weakness.

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## Finding 2 (cont'd.)



- Misstating the direct hour charges to projects reduces reliability of the labor costs assigned to individual facilities and activities in CAS, such as air traffic control towers and aircraft repair stations.
- Misstating direct hour charges impacts accuracy of overhead costs being allocated to direct projects. For example, each \$100 of direct project costs at an air traffic control tower should include an allocation of \$105 of overhead costs for FY2006.

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## Finding 2 (cont'd.)



- Several reasons exist why significant numbers of labor codes continue to be charged "No Project":
  - Lack of accountability for completing and certifying timesheets.
    - Employees not entering their time into the system, and managers not verifying accuracy of the charges by required date. Missing or uncertified hours reported as "No Project."
    - FAA concentrated on finalizing implementation of the labor distribution system. FAA since shifted focus on training and monitoring compliance for the LDR timekeeping order. These efforts decreased "No Project" cost rates.
    - Employees completed training by August 9, 2007.
    - FAA managers began tracking organizations with significant "No Project" costs.

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## Finding 2 (cont'd.)



- Systems interface problem contributing to controllers' labor hours charged to "No Project."
  - Controller time is rounded during conversion from minutes in the Air Traffic Organization Resource Tool "ART" (the time collection system for controllers) to fractions-of-an-hour in CruSupport (the timekeeping system). This can result in more than 80 hours charged for bi-weekly pay periods. When more than 80 hours charged, all direct project hours default to "No Project" (overhead).
  - For example, 100 minutes in ART converts to 1.66666 hours in CruSupport; however, CruSupport displays 1.66 hours. More than 80.00 hours can occur when additional fractional hours are summed for a pay period resulting in direct project charges defaulting to "No Project."

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## Finding 2 (cont'd.)



- FAA implemented procedure to identify when 80 hours are exceeded in CruSupport. This allows manual adjustments to prevent conversion errors. FAA also established a system change request to eliminate the conversion problem; however, it is being delayed due to other priorities.
- The creation of new project codes are delayed and could take up to 3 weeks to become available for labor charging. The Budget Office must approve funds for each new project request. New project codes are established in Delphi and the cost accounting system; however, they are only updated weekly in the Cru-X labor distribution system.

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## Finding 2 (cont'd.)



- In absence of the new project codes, FAA employees charge their labor hours to “No Project.”
- “No Project” charges not being corrected timely. FAA officials indicated all “No Project” charges should be corrected within two weeks. Despite this emphasis, our judgmental review of 14 employees’ “No Project” charges for FY 2006 found only one employee had any invalid charges corrected by year end. Only 224 of the 6,593 “No Project” hours reviewed were corrected.

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## Finding 3



### FAA Did Not Identify Full Cost of Facilities to Manage Operating Costs

- Federal accounting standards require agencies to identify full costs of outputs, which Air Traffic Organization (ATO) defines as service delivery points or facilities, such as individual air traffic control towers.
  - Managers could compare the full costs of similar activities and focus on types of costs requiring attention to operate more efficiently.
  - The accounting standards require agencies to identify full cost information before establishing user fees. Government policy provides, with exceptions, user fees should recover full costs of services.

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### Finding 3 (cont'd.)



- FAA does not assign significant investment costs to ATO's specific facilities and activities.
- In FY 2007, \$1.5 billion was not assigned directly to specific facilities and activities or indirectly through overhead allocations.
  - FAA excluded investment, acquisition, and substantial depreciation costs from the costs of its outputs.
- FAA managers only account for these costs at higher organizational levels because facility managers indicated the costs are not subject to their facility management control.

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### Finding 3 (cont'd.)



- Federal accounting standards address managers' concerns that they should be accountable for costs they control. The standards permit agencies to make a distinction between controllable and uncontrollable costs, but require identification of full costs. Full cost information is essential for comparing services produced by other entities within Government or the private sector.
- Federal accounting standards require costs benefiting more than one facility be assigned on a cause-and-effect basis or allocated as overhead (indirect costs) to the service output (cost objectives).
  - The costs making up the \$1.5 billion benefited more than one facility or activity, and therefore, should have been allocated to overhead.

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### Finding 3 (cont'd.)



- Accounting for full costs at individual facility levels is essential for developing benchmarks and performance goals to reduce FAA's costs, and ensure Congressional and Governmental decisions are based on accurate cost information.
- FAA does not use data from the cost accounting system to set goals to measure performance and operate more efficiently.
- Instead of relying on CAS reports, FAA is relying on other information such as budget data and labor distribution reports that do not provide the precision and level of detail, such as costs of individual activities, provided by CAS.

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### Finding 3 (cont'd.)



- Federal regulation states the objective of a cost accounting system is to provide management with accurate cost data to help manage and improve operational efficiency and economy.
- Cost data can be used to assess the costs of what is measured. By not using CAS as intended, FAA is missing opportunities to achieve performance efficiencies and operational cost savings.

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## Finding 4



### FAA Has Not Adequately Documented Procedures Governing Cost Accounting System Processes

- Despite repeated recommendations from our prior assessments, FAA's documentation of the CAS policies and procedures is not adequate.
  - Significant procedures are retained only in the memories of a few key staff, for example, recording financial statement adjusting entries as expenses in the cost accounting system.
- Documentation is vague, limited, or missing.
  - For example, the process for producing quarterly cost accounting reports was not documented.

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## Finding 4 (cont'd.)



- The language of the documents is technical and not presented in layman's terms.
  - For example, cost allocation methodologies were not described in understandable terms.
- FAA is taking action to document the system processes. A consultant's summarization is estimated to be completed by January 2008.

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## Recommendations



We recommend that the FAA Acting Administrator:

1. Direct the Chief Financial Officer to:
  - a. Strengthen procedures and controls to ensure hours worked are charged to the proper projects, instead of "No Project,"
  - b. Comply with Federal accounting standard Number 4 and use cost accounting system data to measure performance and manage operations for all lines of business, and
  - c. Ensure that the cost accounting system documentation contains sufficient detail and procedures to comply with Federal accounting standards.

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## Recommendations (cont'd.)



2. Direct the Chief Operating Officer, ATO, to:
  - a. No later than March 31, 2008, implement the system change request to be added in the ART system to prevent hours being charged to "No Project," and
  - b. Distribute all costs, including investment costs, to each service delivery point and report the results to FAA management.

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## Eight Required Assessment Areas of FAA's Cost Accounting System



AIR 21 required assessments of:

**1. The method for calculating overall costs and attributing these costs to specific users is appropriate, reasonable, and understandable.**

FAA's method is reasonable and amounts reported in the CAS were consistent with amounts in the financial accounting system; however, FAA does not use the CAS to assign all costs to specific facilities and activities.

**2. Cost input data, including reliability of the administration's source documents and the integrity and reliability of the administration's data collection process.**

FAA has adequate source documents and cost input data for reporting costs of activities in its cost accounting system; however, weaknesses were found in timely and accurate reporting in CIP account, and "No Project" labor hours were reported without correction.

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## Eight Required Assessment Areas of FAA's Cost Accounting System



**3. The system for tracking assets.**

Since FY 2004, FAA implemented an integrated property management system to track assets. For FY 2007, KPMG LLP identified a lack of timely processing of transactions and accounting for property, plant, and equipment, including the CIP account as a material weakness, which was similar to the weaknesses reported for FY 2006. The untimely processing, and other internal control weaknesses, resulted in expenses not being accurately accounted for in the CAS.

**4. Methods for establishing asset values and depreciation.**

The material weakness of FAA's lack of timely processing of transaction and reconciliation accounts identified by KPMG mostly affected the CIP account. FAA did not have effective policies, procedures, and internal controls to capitalize CIP projects in a timely manner and could not adequately support the CIP account balance totaling \$4.7 billion (as of September 30, 2006). This resulted in FAA's receiving a qualified audit opinion. In FY 2007, FAA completed a review of CIP, resulting in the reclassification of \$1.7 billion from CIP to in-use fixed assets and more than \$900 million from CIP to expense. Since more than \$900 million should have been recorded as expenses, costs for facilities were understated in CAS.

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## Eight Required Assessment Areas of FAA's Cost Accounting System



### 5. **The system of internal controls for ensuring the consistency and reliability of reported data.**

FAA has made marked progress in improving accuracy in accounting for labor costs; however, internal control weaknesses still exist in its labor distribution system, which is an essential part of the CAS. FAA has not institutionalized controls over its practices for capitalizing property, plant, and equipment, including CIP. Additionally, FAA has not developed a clear set of documented policies, procedures, and practices for CAS and associated internal controls, as required by Federal accounting standards.

### 6. **The definition of the services to which FAA ultimately attributes its cost.**

FAA has implemented cost accounting and defined services for each of its four lines of business. The definition of services for each line of business is reasonable.

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## Eight Required Assessment Areas of FAA's Cost Accounting System



### 7. **Cost pools that FAA uses and the rationale for and reliability of the bases it proposes to use in allocating costs of services to users.**

FAA collected its agency-wide indirect costs for all of its lines of business into cost pools and used allocation bases in compliance with Federal accounting standards. An exception is that \$1.5 billion of acquisition and investment costs were excluded from overhead cost pools. The costs should have been included in overhead since they are not directly identifiable with service delivery points/ATO facilities or assignable on a cause-and-effect basis.

### 8. **Progress of FAA in cost and performance management, including the use of internal and external benchmarking in improving the performance and productivity of the administration.**

As reported in prior assessments, FAA continues to not use cost accounting data to set goals to manage operations more efficiently.

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**APPENDIX. AGENCY COMMENTS****Federal Aviation  
Administration**

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**Memorandum**

Date: February 20, 2008

To: Mark H. Zabarsky, Assistant Inspector General for Acquisition and Procurement Audits

From: Ramesh K. Punwani, Assistant Administrator for Financial Services/CFO

Prepared by: Anthony Williams, x79000

Subject: *RK Punwani*  
OIG Draft Report: Assessment of Cost Accounting System and Practices  
Federal Aviation Administration

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Thank you for the opportunity to comment on the findings and recommendations of the subject draft report, dated December 26, 2007. We concur with recommendations 1 through 4 and partially concur with recommendation 5. Please refer to the attachment for the agency's response and actions taken or planned for each recommendation.

If you have any questions or need further information, please contact Anthony Williams, Budget Policy Division, ABU-100. He can be reached at (202) 267-9000.

Attachment



**FAA Response to Inspector General’s Draft Report  
“Assessment of Cost Accounting System and Practices,”  
Project No. 04F3019F000**

**Recommendation 1:** Strengthen procedures and controls to ensure the hours worked are charged to the proper projects, instead of “No Project”.

**FAA Response:** Concur.

Action Planned:

In July 2007 FAA completed the labor distribution reporting (LDR) implementation of six staff offices, thereby completing the full agency-wide implementation of LDR. FAA plans to train staff on the use of LDR reporting tools. The training will be conducted during March and April 2008.

FAA monitors the compliance rate of all lines of business (LOB) and Staff Offices and compliance rates are reported to senior FAA management on a monthly basis. FAA units falling below corporate goals will be scheduled for re-familiarization training. FAA is determining the feasibility of undertaking this effort and will have a plan of action after discussion with senior management.

The Air Traffic Organization (ATO), the major line of business within FAA, uses a two-pronged approach to eliminate “NoProject” charging. The activities in this approach outlined below are ongoing and do not have a specific due date.

- 1) Utilize ATO LDR Quality Assurance Resource (QAR)/Timekeeper Network
  - a) ATO Finance will continue to hold regular telecons with the ATO LDR QAR/Timekeeper Network of over 3,200 personnel to provide current LDR-related guidance, monitor LDR-related issues across ATO, and address them as soon as possible. Subject Matter Experts (SME) from ATO-A, Cru-X Program Office; the Office of Financial Services, RADS Program Office; and the Office of Human Resource Management, CASTLE Program Office will continue to participate in the meetings to hear the issues and provide system updates with real-time answers to questions.
  - b) ATO Finance will continue to provide as-needed LDR-related training for the ATO LDR QAR/Timekeeper Network to ensure an educated LDR support network.
  - c) ATO Finance will continue to send regular email messages to the ATO LDR QAR/Timekeeper Network with updates on LDR-related system issues and current LDR-related guidance.
  - d) ATO Finance will continue to provide a live Help Desk, backed up by Finance System SMEs, to answer questions and address LDR-related issues for ATO managers, employees, and members of the ATO LDR QAR/Timekeeper Network.

- 2) Monitor LDR-Related Financial Systems
  - a) ATO Finance will continue to monitor LDR-related financial systems for errors and software bugs. They will process System Change Requests (SCRs) for issues encountered and provide follow up to correct the problem.
  - b) ATO Finance will continue to follow projects and tasks through the system to ensure correct processes are followed (i.e., syntax, templates, LOB entry into system) and any errors are corrected as necessary.
  - c) ATO Finance will ensure that LDR compliance results are reported to each ATO Vice President and the Senior Vice President for Finance each pay period.
  - d) ATO Finance will work closely with the Cru-X Program Office to scrutinize NDC data tables for accuracy.
  - e) ATO Finance will push system owners (e.g., ATO-A for Cru-X) to provide system fixes rather than continue to rely on employee work-arounds for software problems.

Management Comments: The training processes, and procedures listed above were developed during fiscal years (FY) 2006 and 2007 and have proven effective in eliminating “NoProject” hours. The ATO LDR compliance has improved steadily thru 2007 with compliance in pay period 1 at 95.94 percent. By pay period 26, it had improved to 98.4 percent -- a 2.5 percent increase. Annualized that equates to the elimination of approximately 2 million “NoProject” hours.

Along with these advances, the Department of Transportation CASTLE Program Office corrected their amendment process, which fixed an issue that kept several hundred thousand amendments from successfully processing. The Cru-X Program Office plans two software releases in FY 2008 intended to address long-standing issues of decimal rounding and annual leave in non-allowable increments.

Our focus on improving the accuracy and user-friendliness of LDR-related financial systems, coupled with continued support for and by the LDR QAR/Timekeeper Network, should positively impact future ATO LDR compliance rates.

As of pay period 02 in FY 2008, ATO-wide LDR Compliance was 98.57 percent. That equates to 358,542 No Project out of a possible 6.4 million hours charged. 87.7 percent of No Project hours are attributed to two service units--Tech Ops (45.6percent) and Terminal (42.1 percent).

Terminal LDR is collected systematically in Cru-X/ART and sent to CASTLE thru Cru-Support. With the Cru-X/ART/Cru-Support release in May 2008, we expect a dramatic increase in Terminal LDR Compliance.

In February, ATO will work with their LDR QAR’s and Program Managers, thru financial systems query, to detect and correct any system problems causing delays in project availability for charging and issue SCR’s when necessary.

**Recommendation 2:** Comply with Statement of Federal Financial Accounting Standard No. 4 and use cost accounting system data to measure performance and manage operations for all lines of business.

**FAA Response:** Concur.

Action Planned: FAA is continuing efforts to use Cost Accounting System (CAS) data to examine and improve agency operations. As a new business plan goal beginning in FY 2007 and continuing today, the CFO requests LOBs to report on cost efficiency metrics using CAS data within 90 days of the end of the reporting quarter. As part of the “90 Day” reviews, ABA will:

- Work with LOBs to identify cost efficiency metrics using CAS data. For instance a comparison of costs of operations between two similar units within an LOB would be useful, or cost per unit of output, if the respective LOB has that program data readily available,
- Determine the utility of using CAS data in daily operations, taking into account that:
  - CAS processes and reports are updated quarterly
  - Short and intermediate term plans are to process CAS data within 38 days of quarter closing for FY 2008 and 30 days in FY 2009. In FY 2010 CAS processing should be monthly and reports will be available 30 days after month end,
  - Longer term plans are for FY 2012 (or possibly later), CAS may be better integrated with the Oracle Federal Financial product. This will depend on what the manufacturer (assumed to be Oracle) offers and what DOT acquires and implements. The hope is to integrate CAS with the future version of what is currently Delphi and have more timely data and reporting capabilities,
- Gather recommendations for future reporting improvements,
- Examine possible methods for LDR improvements in compliance rates or charging practices,
- Review overhead and/or indirect expense charging, and
- Post accruals for major contracts utilized by ATO improving the accuracy and completeness of CAS data.

Results in working with each LOB may vary. There is no actual target date for this effort, but a goal of making CAS data more useful for each LOB’s cost management processes. Therefore FAA can only provide a status of the effort at the end of each 90 day reporting period.

**Recommendation 3:** Ensure that the cost accounting system documentation complies with Federal accounting standards.

**FAA Response:** Concur.

Action Planned: The Cost Methodology Report is being updated to reflect how the CAS operated in FY 2006 and will be finalized by the end of February. The report is designed for a reader to understand the CAS configuration and how it treats ATO costs. In addition, we will be documenting the methodology used for FY 2007 CAS data. This version will serve as the basis for the update to the FY 2009 overflight fee rates. Planned for completion by the end of June, it will reflect the use of CAS by the Office of Airports and the Office of Aviation Safety.

**Recommendation 4:** Implement the system change request in the ART system to prevent hours being charged to “No Project” by March 31, 2008,

**FAA Response:** Concur.

Action Planned: This change is being accomplished in two steps. First, the May 1 release of CRU-X/ART will no longer convert time to decimal, but remain in minutes. Second, the May 15 release of Cru-Support will record all time in minutes.

**Recommendation 5:** Distribute all acquisition costs for ATO to each service delivery point, and report the results to FAA management.

**FAA Response:** Partially Concur.

Action Planned: FAA will conduct a cost-benefit analysis (CBA) by June 30 to determine the additional processes and reports needed to fully distribute and manage all costs to service delivery points (SDPs). Once the CBA is completed, a decision will be made on whether or not to proceed with system changes or leave the system as is. The FAA will notify the Office of the Inspector General of their decision no later than July 31.

Management Comments: A review of SFFAS #4 allows FAA latitude in defining responsibility and cost segments. For financial and budgetary reporting, the responsibility segment is FAA. For cost accounting, FAA has defined the responsibility segment as the LOBs. ATO has further defined SDPs as cost centers and not responsibility segments.

ATO has designed management cost reports by service area at four levels of manageable/responsible costs. All costs have been fully allocated to the levels at which ATO manages. The issue of distributing costs to the lowest level (from level two to level one) would: 1) degrade the usefulness of the current reporting structure, 2) apply costs that ATO does not manage at the Service Delivery Point level, and 3) apply costs for which the SDP is not responsible. ATO management does not intend to manage certain indirect costs at the SDP level.

## **Appendix. Agency Comments**