Office of Inspector General Audit Report

2001 STATUS ASSESSMENT OF COST ACCOUNTING SYSTEM AND PRACTICES

Federal Aviation Administration

Report Number: FI-2002-072 Date Issued: January 10, 2002



Memorandum

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

Subject: <u>ACTION</u>: 2001 Status Assessment of Cost Accounting System and Practices, FAA FI-2002-072

Date: January 10, 2002

From: Alexis M. Stefani *MAM Stef* Assistant Inspector General for Auditing

To: Federal Aviation Administrator

Reply To Attn Of: **JA-20:x61496**

The Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (AIR-21) directed the Office of Inspector General (OIG) to conduct an annual assessment on whether the Federal Aviation Administration (FAA) methods for calculating and assigning costs to specific users are appropriate, reasonable, and understandable. This is our second annual assessment of FAA's cost accounting system and practices.

In our first assessment, we reported that FAA needed to devote more resources so it could have a fully functioning and compliant cost accounting system by September 30, 2002. FAA also needed to advance its schedule to develop a labor distribution system to account for employees' time and cost by specific project, activity, and service.

To comply with congressional requirements and manage its resources in a businesslike manner, FAA continued developing its cost accounting system during calendar year 2001. Summarized below are examples of key accomplishments this year.

- FAA implemented the cost accounting system for its flight service stations and terminal/tower services, thus completing the cost accounting system for its first and largest line of business, Air Traffic Services. The cost accounting system also was implemented for the financial services and human resources offices within FAA Headquarters.
- FAA implemented labor distribution reporting in its financial services and human resources offices, and its logistics center and training academy. FAA also deployed a system, called Cru-X, that it plans to use to account for and distribute its Air Traffic Services line of business labor costs of about \$2.8 billion annually.
- FAA automated many manual processes, thus improving data accuracy and processing efficiency of the cost accounting system.



The Aviation and Transportation Security Act transfers responsibility for aviation security from FAA's Civil Aviation Security line of business to the new Transportation Security Administration (TSA) within the Department of Transportation (DOT). While some of FAA's cost accounting work for its aviation security organization may be useful, significant additional efforts will be needed to develop state-of-the-art cost accounting and labor distribution systems for TSA. Timely implementation of these systems will be challenging, but necessary, to ensure effective management and efficient operations.

RESULTS IN BRIEF

Developing an effective cost accounting system is a significant undertaking for FAA. Notwithstanding the progress that has been made, and the successes to date, FAA still faces significant challenges to complete and operate a credible cost accounting system. The challenges ahead concern timely implementing of fully developed cost accounting and labor distribution systems, establishing cost and performance management practices, accounting for overhead costs, tracking assets, and developing an adequate system of internal controls. Summaries of the five challenges are:

• For the cost accounting system to be more effective, it must be implemented in all lines of business and interface with the labor distribution system and the Department's new financial management system, known as Delphi. FAA's portion of Delphi, which is being developed, is scheduled to be ready in November 2002. FAA also needs to implement the cost accounting system in five of its six lines of business. Although FAA developed the Cru-X labor distribution system, we found that Cru-X has a serious flaw that allows air traffic controllers to override the system's internal clock and record any start or stop time, regardless of actual arrival at or departure from work. FAA also has not completed negotiating labor distribution reporting with its labor unions, which could further delay implementation of the Cru-X and cost accounting systems.

Considering the significant amount of work to be done, the unknowns associated with interfacing multiple new financial systems, and negotiating with labor unions, it is not likely that FAA will have a fully functioning cost accounting system until early in calendar year 2003.

• Cost and performance management practices involve establishing performance and financial measures, using benchmarking to measure progress, and performing cost and benefit analyses to identify areas for increased efficiency and cost savings. One of FAA's first steps planned for 2001 was to define measures of performance for its program and activities within its lines of business and develop ways to monitor those measures. While FAA has corporate performance measures, it did not achieve its goal to define measures of performance within its lines of business. Cost and performance management is a major undertaking for FAA. However, FAA assigned

only two employees during 2001 with minimal contractor support. This level of resources is not consistent with the importance and complexity of the task.

- FAA properly collected the administrative overhead costs for its Headquarters, but we found that FAA was not using the appropriate basis for allocating about \$574 million of these costs. By not using total cost as the proper allocation basis, FAA overstated Air Traffic Services' costs by about \$55 million, while understating costs for other lines of business.
- FAA's systems for tracking assets are not reliable. While attempting to implement a new property system during FY 2000, FAA allowed non-financial personnel to change asset service dates without proper controls, which resulted in overstatement of net book values by about \$360 million and the recording of excess depreciation expense. During FY 2001, FAA implemented its Interim Fixed Asset System and plans to have a fully integrated property and financial management system to track its assets and compute depreciation by November 2002.
- While FAA's attention rightfully has been on getting the cost accounting and labor distribution systems up and running, FAA needs to focus on the development of well-documented and comprehensive policies, procedures, and practices concerning an adequate system of internal controls, as required by Federal accounting standards. While FAA has documented a major part of its cost accounting processes and procedures, it has not prepared a comprehensive handbook with the required documentation. The lack of adequate internal controls brings into question the integrity of amounts reported for specific FAA activities and services.

In this report, we are recommending that FAA revise the target date for having a fully functioning cost accounting system; increase resources to achieve cost and performance management; use total cost as the basis to allocate administrative overhead costs for FAA Headquarters; and prepare a handbook of internal control procedures for the cost accounting system. FAA agreed with all findings and recommendations, and provided specific corrective actions to be taken and target dates for completion.

BACKGROUND

The Federal Aviation Reauthorization Act of 1996 (the Act) required FAA to develop a cost accounting system that adequately and accurately reflects the investments, operating and overhead costs, revenues, and other financial measurement and reporting aspects of its operations. In 1997, the National Civil Aviation Review Commission recommended that FAA establish a cost accounting system to manage its resources in a businesslike manner. AIR-21 also requires FAA to develop and implement a cost accounting system to effectively manage its resources.

The Act authorized user fees for flights that fly in United States controlled airspace but do not take off from or land in the United States. The original language in the Act required the fees to be directly related to the cost of services provided. In the Aviation and Transportation Security Act, Congress stated that fees must be reasonably related to FAA's costs. FAA began charging overflight fees on March 20, 1997, but its method of charging the fee was challenged in court. On January 30, 1998, the United States Court of Appeals for the District of Columbia ruled that FAA's method for calculating overflight fees was based on the value of services, which was prohibited by the Act.

As a result of the court ruling, FAA stopped billing for overflights and refunded the collected amounts. FAA then began to focus its efforts on completing its cost accounting system requirements for its Air Traffic Services line of business. Effective August 1, 2000, FAA again began billing user fees for overflights. The airline industry again filed a lawsuit alleging the cost of providing FAA's overflight services is less expensive than non-overflight services.

On July 13, 2001, the court ruled that there was no evidence in the record that addressed FAA's assumption that the costs are the same for overflights and non-overflights, and revoked the interim fee. The United States has petitioned for a rehearing, reporting that FAA issued its final rule on overflight fees, and that the final rule provides adequate explanation for FAA's bases for fees. On October 11, 2001, the airline industry filed a lawsuit on FAA's Final Rule. As of December 14, 2001, the court had not made its decision on the rehearing.

To accurately compute costs for services and improve cost management, private industry professionals and members of the Federal Accounting Standards Advisory Board developed managerial cost accounting standards for the Federal Government. These standards, applicable to FAA, are basically the same as those used by major industrial firms. Specific purposes are (1) establishing departmental cost targets for controlling costs and measuring performance, (2) computing costs of services and setting fees, and (3) evaluating programs.

With accurate cost accounting information, FAA will be able to compare the cost of facilities and functions, identify its most efficient sites and best practices to improve operations, and make better management decisions. Secondarily, the cost accounting system could serve as the foundation for establishing user fees, if Congress eventually elects to restructure FAA's financing and authorize additional fees.

OBJECTIVES, SCOPE, AND METHODOLOGY

The OIG assessment of FAA progress in this report responds to the mandate as defined in Section 309 of AIR-21. This report summarizes key findings concerning FAA's cost accounting and labor distribution systems as of December 14, 2001. AIR-21 requires that

OIG perform eight specific assessments to determine whether FAA's methods for calculating amounts in the cost accounting system and assigning costs to specific users are appropriate, reasonable, and understandable. Summaries of our assessments are in Exhibit A. In addition, a listing of audit reports and congressional testimonies relevant to the assessment areas are identified in Exhibit B.

Our objectives were to provide the status of FAA's cost accounting system and our results on specific assessments of each area required by AIR-21. These areas were: (1) the method for calculating and assigning costs to users; (2) integrity and reliability of cost input data, including source documents and data collection process; (3) asset system for tracking; (4) methods for establishing asset values and depreciation; (5) internal controls over cost data; (6) definition of services selected for cost collection; (7) overhead pools and the reliability of the bases used for assigning common costs; and (8) FAA's use of cost and performance management for improving performance and productivity.

The scope of our examination reflects our assessment of control risk and includes tests of compliance with applicable laws and regulations. Our assessment of control risk reflects that we have not specifically examined all internal controls that may be applicable to FAA's cost accounting system because the system still is under development. The analyses we performed of internal controls provided an understanding of the design of the internal controls, whether the internal controls had been placed in operation, and whether the internal controls were sufficient to assess the control risk associated with the cost accounting system.

We performed our audit during October and November 2001 at FAA Headquarters in Washington, D.C. The audit was conducted in accordance with <u>Government Auditing</u> <u>Standards</u> prescribed by the Comptroller General of the United States. We also relied on other work we performed on FAA's cost accounting system and annual financial statements.

RESULTS

Developing an effective cost accounting system is a significant undertaking, and FAA continues to make progress. To date, FAA implemented the cost accounting system for the enroute, oceanic, flight service stations, and terminal/tower services; thus, completing the cost accounting system for its first and largest line of business, Air Traffic Services. However, FAA has not implemented the labor distribution system for Air Traffic Services. We previously reported that FAA's cost accounting system would not be credible or effective without a labor distribution system.¹

¹ Status Assessment of FAA's Cost Accounting System and Practices, Report Number FI-2001-023, February 28, 2001.

FAA also needs to complete the cost accounting system for five of its six lines of business, which are Research and Acquisitions, Regulation and Certification, Airports, Civil Aviation Security, and Commercial Space Transportation. The implementation of the cost accounting system may be affected by the transfer of the Civil Aviation Security functions to TSA. The Department has asked FAA to support TSA by continuing to implement the cost accounting system for what was formerly known as the Civil Aviation Security line of business. The long-term strategy for a cost accounting capability at TSA has not yet been determined.

FAA's cost accounting system, while capable of calculating cost agencywide, needs to be refined to produce accurate and reliable results for specific activities and services. Since 1998, we have made many recommendations related to the appropriate accounting for financial and cost issues. FAA generally concurred with our recommendations and has taken, or plans to take, corrective actions. Major areas needing emphasis are discussed in the following paragraphs.

Cost Accounting System Implementation Schedule

FAA will not implement a credible and effective cost accounting system by September 30, 2002. FAA also is in the process of implementing a new financial management system, known as Delphi, that will not be operational before November 2002. Further, the cost accounting system for three lines of business (Air Traffic Services, Airports, and Certification and Regulation) will be delayed because the labor distribution system will be implemented with Delphi.

Delphi will not be ready before November 2002, and FAA will need additional time to integrate the Delphi, labor distribution, and cost accounting systems. This delay is expected because FAA will not be able to integrate the systems for the three lines of business until after Delphi is ready. To have credible labor distribution and cost accounting systems, FAA must fully integrate these systems with Delphi. FAA also has yet to complete negotiations for labor distribution reporting with its labor unions, which could further delay implementation of the Cru-X and cost accounting systems. Considering the significant amount of work to be done, the unknowns associated with interfacing multiple new financial systems, and negotiating with labor unions, it is not likely that FAA will have a fully functioning cost accounting system until early in calendar year 2003.

Cost and Performance Management

FAA needs to implement cost and performance management practices. Cost and performance management includes establishing performance and financial measures, using benchmarking to measure progress, using data analysis techniques, and performing cost and benefits analyses to identify areas for increased efficiency and cost savings.

FAA adopted cost and performance management initiatives to comply with the Government Performance and Results Act of 1993, and to improve its operations and resource efficiency. In October 2000, FAA established the Office of Cost and Performance Management to develop its cost and performance management policies and incorporate them into all administrative processes during FY 2004.

Cost and performance management begins with defining successful performance for FAA programs and functions within each line of business. After successful performance is defined, information from FAA's cost accounting system can be used to develop detailed financial measures, establish benchmarks for measuring progress, and use data analysis techniques and cost and benefits analyses to determine the most efficient practices.

Developing cost and performance management practices is a major undertaking and a significant departure from FAA's past management strategies. In 2001, FAA planned to define measures of performance for its programs and activities within its lines of business and develop ways to monitor those measures. While FAA has corporate performance measures, it did not achieve its goal because insufficient resources were assigned to the tasks. FAA's effort resulted in defining its strategy of how cost and performance management would work and conducting training seminars for management personnel.

During 2001, FAA assigned only two employees, with the help of three contractor personnel, for its cost and performance management efforts. This level of resources is not consistent with the importance and complexity of such a large task. No specific measures of performance by line of business were developed, which causes a delay in achieving the benefits of high quality cost and performance management information. FAA still is planning to fully implement cost and performance management during FY 2004, contingent upon funds availability. However, it is likely that FAA will not accrue full benefits from the program until well after FY 2004.

During 2001, we audited the cost accounting practices for FAA's 61 flight service stations and found that FAA would not be able to use cost and performance management techniques effectively because it had not identified the actual costs of operating its facilities.² For example, FAA incurred about \$9 million in data processing labor costs during FY 2001, but assigned these costs to only 21 of its 61 flight service stations, thereby overstating the costs to operate 21 stations while understating the operations cost for the other 40 stations. The Fort Worth station was assigned \$461,000 of labor cost when its fair share should have been \$216,000. As a result, FAA would not know the actual cost to operate a flight service station, and therefore, could not establish accurate internal and external benchmarks between and among flight service stations.

² Flight Service Stations Cost Accounting Practices, Report Number FI-2002-065, December 11, 2001.

Other United States Government agencies that implemented cost and performance management techniques achieved significant cost savings by performing activities more efficiently and reducing unnecessary efforts. For example, one organization in the United States Army achieved an 18-percent annual saving in its operations budget by analyzing its labor cost and streamlining its processes. In another example, the Office of Rural Economic and Community Development achieved a 37-percent reduction in its operational costs by evaluating its activities for duplicate processes and eliminating unnecessary efforts.

If FAA implements cost and performance management practices in FY 2003, it could benefit by eliminating unnecessary activities to reduce costs and increase productivity. For example, if FAA conservatively achieved only a 5-percent improvement factor applied to its estimated FY 2003 operations and maintenance budget of about \$7.4 billion, it would create a \$368 million cost reduction or increase in funds available for other purposes. FAA must dedicate the resources necessary to implement cost and performance management to save money and increase effectiveness.

Overhead Costs

About \$574 million of administrative costs were not correctly assigned because FAA used an improper allocation base to assign these overhead costs to the lines of business. Administrative overhead costs for FAA Headquarters include such activities as legal counsel, civil rights, and public affairs.

Federal accounting standards require that overhead be assigned using an appropriate allocation base. For example, while total headquarters administrative overhead costs for FAA were accurate, FAA overstated FY 2001 costs for its Air Traffic Services line of business by about \$55 million because FAA used a labor and benefits cost base to allocate the overhead costs when the appropriate method was a total cost base. The inappropriate basis also understated overhead costs for other lines of business.

Internal Controls

FAA has rightfully focused its attention on getting the cost accounting and labor distribution systems up and running. However, FAA now needs to focus on the development of well-documented and comprehensive policies, procedures, and practices to establish an adequate system of internal controls. These controls are needed to ensure cost accounting data are accurate, consistent, and reliable. Federal accounting standards require that all managerial cost accounting activities, processes, and procedures should be clearly documented in a manual, handbook, or guidebook. While FAA has documented a major part of its cost accounting processes and procedures, it has not prepared a comprehensive handbook with the required documentation.

Last year, we reported that FAA had no system to determine its labor cost of specific activities and services, and that FAA's cost accounting system would not be effective and credible without an adequate labor distribution system.³ In response to our recommendation, FAA agreed to implement an agencywide labor distribution system by September 30, 2002. FAA identified the labor distribution system, known as Cru-X, that its 36,000 air traffic controller and maintenance personnel will use.

During 2001, we audited the Cru-X system and found its design had a significant internal control flaw.⁴ This flaw allows controllers to override the computer's internal clock and record any start or stop time, regardless of actual arrival at or departure from work. For example, if an air traffic controller is scheduled to begin a shift at 7:00 o'clock but arrives at 10:00 o'clock, the employee can manually enter 7:00 o'clock and Cru-X will accept the entered time as the actual time the controller started work.

In response to our report, FAA proposed building a feature into Cru-X that would flag employee sign-in, sign-out entries that vary from predetermined schedules, and the supervisor, or supervisor's representative, would electronically initial the entry. However, once the entry has been initialed, the flag is removed and no system clock time is saved. FAA did not agree to program the Cru-X system to correct this internal control weakness. On October 30, 2001, we requested that FAA reconsider its position. As of December 14, 2001, we had not received FAA's response. The lack of adequate internal controls brings into question the integrity of the amounts reported for specific FAA activities and services.

RECOMMENDATIONS

We recommend that the FAA Administrator:

- 1. Revise the target date for having a fully functioning cost accounting system, considering the interface requirements of the labor distribution and Delphi accounting systems.
- 2. Increase monetary and personnel resources to achieve implementation of cost and performance management in FY 2003.
- 3. Modify the cost accounting system to allocate the administrative overhead costs for FAA Headquarters to lines of business using a total cost base.

³ Status Assessment of FAA's Cost Accounting System and Practices, Report Number FI-2001-023, February 28, 2001.

⁴ Air Traffic Services Planned Labor Distribution Reporting, Report Number FI-2002-016, October 30, 2001.

4. Prepare a handbook of comprehensive and well-documented policies and procedures for an adequate system of internal controls for the cost accounting system.

Prior Recommendations

We issued six other reports related to the development and implementation of FAA's cost accounting system. These reports and the 20 recommendations follow:

Audit Report Number: FI-2002-065, *Flight Service Stations Cost Accounting Practices*, December 11, 2001.

- Improve the accuracy of the data produced by the telecommunication systems by correcting inaccurate and missing telecommunication cost data.
- Use detailed vendor billing information to assign actual contract maintenance costs to each of the flight service stations.
- Compute and assign data processing labor costs automatically to each of the 61 flight service stations.

Audit Report Number: FI-2002-016, *Air Traffic Services Planned Labor Distribution Reporting*, October 30, 2001.

• Improve the internal controls within the Cru-X labor distribution system by directing that software programs be modified to use the system's internal clock to automatically record the employee's actual start and stop times and provide flexibility for the supervisor to approve variations in the scheduled work times as appropriate.

Audit Report Number: FI-2001-023, *Status Assessment of FAA's Cost Accounting System and Practices*, February 28, 2001.

- Establish the cost accounting and labor distribution systems as a top priority and establish the estimated completion date to be when both systems are fully implemented. FAA's goal should be to have both systems fully implemented by September 30, 2002.
- Increase allocation of monetary and personnel resources to meet the established completion date for both systems.
- Review the cost accounting system processes to determine whether more efficient methods can be used without a loss of system effectiveness.

Audit Report Number: FI-2001-013, *Design of the Cost Accounting System for Research and Acquisitions*, December 18, 2000.

- Modify the labor distribution reporting system and procedures to prevent hours from being charged to "No Project."
- Implement written timekeeping procedures to ensure that hours worked are charged to the proper projects.
- Design the cost accounting system for Research and Acquisitions to create separate cost groupings for different types of common cost, such as overhead and general and administrative expenses.
- Change the basis for allocating overhead cost to projects to a total expenditure base that includes all project costs.
- Until the cost accounting system is implemented, estimate the portion of overhead cost associated with producing facilities and equipment assets, and include the cost in work-in-process or other asset accounts until the assets are placed in use.
- Establish procedures to identify commercial and externally developed software costs incurred for all administrative systems under development, and record the cost in work-in-process or other asset accounts in the financial and cost accounting system.

Audit Report Number: FE-2000-024, Cost and Flight Data for Aircraft Overflights, December 17, 1999.

- Use FY 1999 cost, including property depreciation cost, and FY 1999 flight data to determine overflight costs and compute user fees.
- Update labor standards as a short-term improvement to estimate airway facilities labor costs.
- Establish a labor distribution system to capture costs for the air traffic controller and airway facilities workforces. As part of this process, establish a method to assign non-labor airway facilities costs directly to projects.

Audit Report Number: FE-1998-186, *Implementation of Cost Accounting System*, August 10, 1998.

• Collect appropriate accounting adjustments and project cost.

- Develop procedures to assure that labor costs are accurately assigned to projects.
- Determine cost incurred by other agencies and factor into FAA's full cost of operations.
- Revise the implementation plan for the cost accounting system by specifying time and resources necessary to obtain performance data, resolve schedule conflicts, and perform critical tasks.

FAA agreed with all of our prior recommendations, except for the recommendation to improve internal controls within the Cru-X labor distribution system, and has completed, or is in the process of taking, corrective actions.

MANAGEMENT RESPONSE

A draft of this report was provided to the FAA Administrator on December 20, 2001. FAA concurred with the four new recommendations and provided these comments:

Recommendation 1: Concur. The Assistant Administrator for Financial Services and Chief Financial Officer recently notified affected organizations that FAA would align implementation of the cost accounting and labor distribution systems with the DELPHI implementation. FAA recognizes that its schedule is aggressive. As FAA moves closer to the scheduled implementation dates, FAA will monitor and assess its progress to determine whether FAA can make those dates. FAA expects to reach a definitive determination by the end of June 2002.

<u>Recommendation 2</u>: Concur. Once FAA receives its FY 2003 budget, it will prioritize its projects. FAA recognizes the need to apply appropriate resources to its various projects. Nevertheless, the criticality of each project, combined with FAA's funding level, will be the defining point for FAA decisions.

Recommendation 3: Concur. FAA will analyze each FAA Headquarters overhead cost pool (staff offices) to determine the most logical, relevant and suitable basis to use in allocating administrative overhead costs. FAA will complete its study and make appropriate changes by the end of March 2002.

Recommendation 4: Concur. FAA will complete this work by the end of FY 2002.

FAA also stated that it is premature to comment on achieving a \$368 million cost reduction in FY 2003, and that FAA will be in a better position to comment on the reasonableness of the \$55 million overstatement of cost allocations to Air Traffic

Services after its analysis of each Headquarters overhead cost pool is completed by the end of March 2002. The complete text of FAA comments are in the Appendix.

OFFICE OF INSPECTOR GENERAL COMMENTS

We considered FAA comments and made changes to clarify the final report. Actions taken and planned by FAA are reasonable and no further actions are necessary at this time, subject to the followup requirements in DOT Order 8000.1C. Please provide comments on the reasonableness of the \$368 million in cost reductions and the \$55 million overstatement of cost allocations to Air Traffic Services after FAA completes its work on these two areas.

We appreciate the courtesies and cooperation of FAA representatives. If we can answer questions or be of further assistance, please call me at (202) 366-1964 or John Meche at (202) 366-1496.

#

Exhibit A. Results of Assessments

AIR-21 requires eight specific assessments to determine whether FAA's methods for calculating amounts in the cost accounting system and assigning costs to specific users are appropriate, reasonable, and understandable. The following paragraphs present the results of our assessments as of December 14, 2001.

Assessment Area 1. Assessment to ensure that the method for calculating the overall costs of the Federal Aviation Administration and attributing these costs to specific users is appropriate, reasonable, and understandable.

FAA's methods for calculating the overall costs of FAA are reasonable, except for its method of determining depreciation expense. Our audit of FAA's FY 2000 financial statements disclosed that FAA could not adequately support its calculation of depreciation expense of \$751 million. The cost accounting system uses a combination of data from the financial accounting systems and operational data systems to arrive at overall costs. The total amount reported in the cost accounting system equals amounts reported in the financial accounting system.

While FAA's cost accounting system is capable of calculating cost agencywide, FAA's methods for attributing its cost to specific users, activities, and services do not always result in accurate calculations because FAA used inappropriate methods or inaccurate data to assign its cost. FAA's cost accounting system cannot adequately identify some costs associated with its activities and services such as en route, oceanic, and flight service stations. For example, FY 2001 costs of about \$62 million were properly recorded in the total cost to provide flight service stations services, but were not assigned to any of the 61 flight service stations. FAA needs to improve its methods of attributing costs to specific users, activities, and services.

Assessment Area 2. FAA cost input data, including the reliability of the Administration's source documents and the integrity and reliability of the Administration's data collection process.

FAA has adequate financial source documents and cost input data, such as vendor invoices, for determining the total cost of current operations, except for depreciation expense. However, FAA needs to improve its data collection procedures to ensure that users can rely on the information produced by the cost accounting system. Problems with data collection procedures affect the integrity and reliability of the cost information. For example, we found that FAA could not accurately assign about \$12 million of telecommunication costs to its 61 flight service stations. This occurred because of the poor quality or the missing cost data within FAA's telecommunication system. FAA must have effective collection procedures to accurately assign its cost among services and

activities so that cost data are more meaningful to make sound management decisions and improve operations and efficiency. FAA is working to improve its data collection processes to ensure the reliability of the information produced by the cost accounting system.

Assessment Area 3. FAA's system for tracking assets.

FAA's systems for tracking assets are not reliable, resulting in a material internal control weakness. The Chief Financial Officers Act of 1990 required the preparation and audit of commercial-like financial statements for all major Federal agencies. The Government Management Reform Act of 1994 expanded the requirement for audited financial statements and established the requirement for the acquisition cost of property, plant, and equipment to be reported in agencies' financial statements and certified by auditors. Prior to this legislation, agencies were primarily concerned with knowing what property they owned, where it was located, and its condition. Records supporting the acquisition cost of property, plant, and equipment were frequently not available.

Our audits of FAA's financial statements historically have reported that FAA's systems for tracking assets were not reliable. After many years of work, FAA was able to support the cost reported for property, plant, and equipment on its FY 1999 financial statements. However, this was accomplished by using alternative procedures and labor-intensive methods that were costly and prone to errors.

To establish necessary system controls, we recommended that FAA acquire a commercial, off-the-shelf, integrated property management system for tracking its assets. FAA agreed and began implementing a system in FY 2000, but could not use the system because FAA could not reconcile almost \$500 million of differences between the values entered into the new system and the audited values as of September 30, 1999. For its FY 2000 reporting, FAA had to continue using its old systems and alternative procedures. These procedures and methods did not include controls necessary to ensure proper reporting. As a result, we identified internal control weaknesses that resulted in the material overstatement of the reported value of property, plant, and equipment for FY 2000. During FY 2001, FAA implemented its Interim Fixed Asset System and planned to have a fully integrated property and financial management system to track its assets in place by November 2001, but this date has subsequently slipped to November 2002.

Assessment Area 4. FAA's methods for establishing asset values and depreciation.

Federal agencies were not required to compute depreciation expense until FY 1998. When FAA implemented the depreciation requirements, asset values were established using estimating procedures and depreciation expense was computed manually using electronic spreadsheets for about 30,000 property items. These procedures were acceptable under accounting standards, but this method is not the best way to establish asset values. The best method is to capture the actual cost incurred when the asset is acquired or improved.

During FY 1999, FAA made an extraordinary and labor-intensive effort to overcome accounting and financial system weaknesses with its property accounts. FAA hired additional contractors, detailed employees, and used extensive employee overtime and compensatory time to overcome the system weaknesses. For real property (buildings and structures), FAA used cost estimating techniques to support the asset values of property acquired before October 1, 1994, and maintains actual documentation for property acquired since then. For personal property (major equipment), FAA analyzed appropriation data, budget information, and other financial records to determine the cost of assets. For personal property acquired after October 1, 1994, FAA is capturing actual costs. OIG report number FE-2000-058, FAA Property, Plant, and Equipment, dated February 28, 2000, provides extensive details on FAA's bases for establishing its asset values for those assets acquired prior to October 1994.

To compute depreciation, FAA documented asset acquisition dates through a variety of means including acceptance inspection reports, pictures of corner stones or dedication plaques, and copies of relevant print articles. FAA then calculated depreciation using the straight-line method, with estimated asset useful lives ranging from 5 years (vehicles and electronic data processing equipment) to 40 years (offices, buildings, and air traffic control towers) depending on the asset classification.

We statistically tested the acquisition value of FAA's real property, personal property changes, work-in-progress, and construction in progress as of September 30, 2000, and found the values to be substantiated. However, because of system deficiencies mentioned in Assessment Area 3, we identified material internal control weaknesses. Inadequate controls permitted the modification of asset service dates by non-financial personnel that resulted in the overstatement of net book values and the recording of excess depreciation expense. We also found FAA encountered problems computing depreciation using a commercial software program. The software did not properly account for cost changes resulting from property improvements and disposal. For FY 2000, we statistically estimated the reported net book value of FAA's personal property was overstated by about \$283 million. FAA hired an independent public accounting firm to evaluate its real property holdings, and concluded FAA's real property net book value was overstated by about \$77 million.

For FY 2001, FAA expanded its contract with the public accounting firm to audit FAA's entire property account. As mentioned in Assessment Area 3, FAA is in the process of implementing a property management system for tracking its assets. This system will have the capability to automatically calculate depreciation in accordance with generally accepted accounting standards. However, FAA will not have a way to integrate its

property system with its financial system until both the new departmental financial system and its property management system are in place. The schedule currently calls for FAA to begin implementing the new DOT financial system in November 2002.

Assessment Area 5. FAA's system of internal controls for ensuring the consistency and reliability of reported data.

FAA has made progress implementing internal controls to ensure the consistency and reliability of reported data. For example, FAA established a process to manage and track changes to the cost accounting system. In addition, we determined that FAA has effective procedures to ensure that transferred and terminated employees are restricted from having access to the cost accounting system. However, significant weaknesses in FAA's internal controls still exist.

While FAA has documented a major part of its cost accounting processes and procedures, it has not prepared a comprehensive handbook of well-documented policies, procedures, or practices established for its cost accounting system internal controls. Consequently, errors may not be detected or prevented. As a result, the reported cost accounting data for specific projects, activities and services may not be consistent and reliable. We found FAA could not assign about \$9 million of FY 2001 flight service station contract maintenance costs because FAA's cost accounting system could not electronically access the accurate information. Adequate internal controls and processes should have existed within the cost accounting system to ensure reliability of reported data.

FAA is implementing a labor distribution system for employees to record their time by projects and activities. The labor distribution system will be the source of labor costs for FAA's cost accounting system. The system the air traffic controllers will use is known as Cru-X. We found a significant internal control weakness in the Cru-X labor distribution system. Internal controls were not effective related to employees start and stop times for their work shifts. Consequently, the reliability of the Air Traffic Services line of business labor costs of about \$2.8 billion annually would be questionable. The lack of adequate internal controls brings into question the integrity of the amounts reported for specific FAA activities and services.

Assessment Area 6. FAA's definition of the services to which it ultimately attributes its costs.

FAA's definition of services, to which it ultimately attributes its cost, is reasonable. FAA defined four services within its Air Traffic Services line of business: En Route, Oceanic, Terminal, and Flight Service Stations. FAA's services are similar to the services described in the International Civil Aviation Organization standards and recommended practices. FAA's defined services also are comparable to NavCanada's (Canada's provider of air traffic control services defined services). As FAA implements the cost

accounting system into its other lines of business, FAA must define its services for those lines of business.

Assessment Area 7. Cost pools FAA used and the rationale for and reliability of the bases which it proposes to use in allocating costs of services to users.

As of December 14, 2001, FAA had developed overhead cost pools and bases for allocation of costs to its headquarters and lines of business. We have not audited the reliability of all these overhead cost pools and bases.

Last year we reported that the Research and Acquisitions line of business cost accounting system improperly combined production overhead cost and general and administrative cost into one overhead cost pool. In addition, the Research and Acquisitions line of business used an inappropriate allocation base to allocate the common costs to facilities and equipment projects. FAA plans to take corrective action when the cost accounting system is fully implemented in the Research and Acquisitions line of business during FY 2002. In the interim, FAA is adjusting the amounts to be correctly reported in its financial statements.

This year we reviewed the financial and administrative overhead cost pools for FAA headquarters. The financial overhead cost pool contains costs associated with financial and budgeting activities. We found that the financial overhead cost pool had properly collected headquarters' financial and budgeting costs and allocated these costs in compliance with Federal accounting standards.

The administrative overhead cost pool for FAA headquarters contains costs for non-financial activities such as legal counsel, civil rights, and public affairs. We found that FAA's administrative overhead cost pool had properly collected headquarters administrative costs. However, FAA used an inappropriate allocation base of labor and benefits cost to allocate the administrative overhead cost to lines of business. Federal accounting standards require that overhead costs be allocated using an appropriate allocation base. We found the appropriate allocation base should be total costs.

Assessment Area 8. Assess the progress of FAA in cost and performance management, including use of internal and external benchmarking in improving the performance and productivity of the administration.

Cost and performance management includes establishing performance and financial measures and using benchmarking, data analysis techniques, and performing cost and benefits analyses to measure progress. FAA adopted cost and performance management initiatives to comply with the Government Performance and Results Act of 1993, and to improve its operations and resource efficiency. FAA initially planned to incorporate cost and performance management into all administrative processes during FY 2004.

FAA planned to define measures of performance for its programs for its activities within its lines of business and develop ways to monitor those measures during FY 2001. FAA did not achieve this goal. FAA's effort resulted only in defining its strategy of how cost and performance management would work within FAA's organizations and conducting training seminars for management personnel. No specific measures of performance were developed, which causes a delay in achieving the benefits of high quality cost and performance management information. FAA still is planning to fully implement cost and performance management during FY 2004, contingent upon funds availability. However, it is likely that FAA will not accrue full benefits from the program until well after FY 2004.

FAA should use cost and performance management, including internal and external benchmarking to improve performance and productivity. However, FAA cannot now use cost and performance management techniques effectively because it cannot identify the actual costs of operating its facilities. For example, FAA was assigning its data processing labor cost to only 21 of its 61 flight service stations. As a result, the Fort Worth flight service station was charged \$461,000 for data processing labor cost in FY 2001 when it should have been assigned only \$216,000. Forty stations were assigned no data processing labor cost. By not assigning the labor cost to each of the 61 flight service station and therefore cannot set accurate internal and external benchmarks or establish financial measures.

During FY 2001, FAA assigned only two employees, with the help of three contractor personnel, for its cost and performance management efforts. This level of resources is not consistent with the importance and complexity of such a large task.

Exhibit B. Reports and Congressional Testimonies Related to AIR-21 Assessment Areas

Flight Service Stations Cost Accounting Practices, OIG Report Number FI-2002-065, December 11, 2001.

Air Traffic Services Planned Labor Distribution Reporting, OIG Report Number FI-2002-016, October 30, 2001.

Implementing a New Financial Management System, OIG Report Number FI-2001-074, August 7, 2001.

Statement of Kenneth M. Mead, Inspector General, Before the Appropriations Committee's Subcommittee on Transportation, U. S. House of Representatives, Management Oversight Issues, March 8, 2001.

Fiscal Year 2000 FAA Financial Statements, OIG Report Number FI-2001-036, March 1, 2001.

Status Assessment of FAA's Cost Accounting System and Practices, OIG Report Number FI-2001-023, February 28, 2001.

Statement of Kenneth M. Mead, Inspector General, Before the Appropriations Committee's Subcommittee on Transportation, U. S. Senate, Management Oversight Issues, February 14, 2001.

Top Ten Management Challenges, Department of Transportation, OIG Report Number PT-2001-017, January 18, 2001.

Major Management Challenges and Program Risks, GAO Report Number 01-253, January 2001.

Design of the FAA Cost Accounting System for Research and Acquisitions, OIG Report Number FI-2001-013, December 18, 2000.

Statement of Kenneth M. Mead, Inspector General, Before the Appropriations Committee's Subcommittee on Transportation, U. S. Senate, Management Oversight Issues, March 9, 2000.

Statement of Raymond J. DeCarli, Deputy Inspector General, Before the Subcommittee on Transportation, U. S. House of Representatives, Transportation Investment Projects Management and Oversight, March 8, 2000.

Statement of Alexis M. Stefani, Before the Subcommittee on Science, U. S. House of Representatives, Improving Aviation Safety, Efficiency, and Security: FAA's Fiscal Year 2001 Request for Research, Engineering, and Development, March 1, 2000.

Fiscal Year 1999 FAA Financial Statements, OIG Report Number FE-2000-060, February 29, 2000.

FAA Property, Plant, and Equipment, OIG Report Number FE-2000-058, February 28, 2000.

Statement of Kenneth M. Mead, Inspector General, Before the Committee on the Budget and Subcommittee on Transportation and Related Agencies, Committee on Appropriations, U. S. Senate, Modernizing the Federal Aviation Administration: Challenges and Solutions, February 3, 2000.

FAA Cost and Flight Data for Aircraft Overflights, OIG Report FE-2000-024, December 17, 1999.

Statement of John L. Meche, Deputy Assistant Inspector General for Financial and Information Technology, Before the Subcommittee on Oversight, Investigations, and Emergency Management, Committee on Transportation and Infrastructure, U. S. House of Representatives, Financial Data Quality in the U.S. Department of Transportation, September 30, 1999.

Statement of John L. Meche, Deputy Assistant Inspector General for Financial and Information Technology, Before the Government Reform Committee's Subcommittee on Government Management, Information, and Technology, U. S. House of Representatives, Financial Management at the Federal Aviation Administration, March 18, 1999.

Implementation of FAA Cost Accounting System, OIG Report Number FE-1998-186, August 10, 1998.

Exhibit C. Major Contributors to This Report

THE FOLLOWING INDIVIDUALS CONTRIBUTED TO THIS REPORT.

Name	Title
Keith L.Cosper	Program Director
Paul Barry	Project Manager
Michael Veverka	Senior Auditor

Appendix. Management Comments



Memorandum

U.S. Department of Transportation Federal Aviation Administration

Subject: ACTION: Draft Report on 2001 Status Assessment of Cost Accounting System and Practices, FAA From: Assistant Administrator for Financial Services and Chief

Financial Officer

Date: January 4, 2002

Reply to Attn. of:

To: Deputy Assistant Inspector General for Financial, Information Technology, and Departmentwide Programs

We have attached to this memorandum our response to the subject Draft Audit Report. We concurred with all findings and recommendations, and indicated the specific actions that we plan to take for each recommendation and target dates for completion.

At this time we are unable to comment on the reasonableness of the \$368 million cost savings as a result of the cost and performance management process. As discussed in the attached response, FAA is currently developing agency-wide performance measures. Therefore, we believe that it is premature to comment on achieving 5% cost savings in FY 2003, and the reasonableness of \$368 million of cost reduction.

We are also unable to comment on the reasonableness of the appropriate allocation \$55 million related to the of administrative overhead. As discussed in the attached response, we will analyze each FAA Headquarters overhead cost pool (staff offices) to determine the most logical, relevant and suitable basis to use in allocating administrative overhead costs to LOB's. Then, we will be in a better position to comment on the reasonableness of the reported \$55 million overstatement of allocations of headquarters administrative overhead costs to the ATS LOB.

We appreciate the courtesy and professionalism of your audit staff. If you have any questions, please call Ray Morris at (202) 267-7580.

CR.E.

Chris Bertram

Attachment

January 4, 2001

General Comments. FAA appreciates the OIG recognizing that the FAA has accomplished much during the past year. We concur with the OIG recommendations. However, we believe the following changes to the Draft Report will provide a fairer representation of the FAA's current status in the areas of the Cost Accounting System's effectiveness, schedule and internal controls, FAA's Cost and Performance Management Program, and fixed asset tracking.

Specific Comments. Our specific comments follow:

Page 1, second bullet, last sentence:

OIG Draft Report: "FAA also deployed a system, called Cru-X, that it plans to use to account for and distribute its air traffic control labor costs of about \$2.2 billion annually."

FAA Comment: Air Traffic Services (ATS) labor costs are about \$2.8 billion annually. This includes air traffic controllers, Airway Facilities system specialists, engineers, and others.

Page 2: Results in Brief section, first bullet, first sentence:

OIG Draft Report: "For the cost accounting system to be effective, it must be implemented in all lines of business and interface with the labor distribution system and the Department's new financial accounting system, known as Delphi."

FAA Comment: The Report makes it appear the Cost Accounting System (CAS) is not effective in that the FAA cannot currently use it for its intended purposes. Although the FAA has not fully implemented the CAS and Labor Distribution Reporting (LDR), the system is effective in organizations that are using it. It provides the Air Traffic Services organization with management information that far surpasses any information available before the FAA implemented the CAS in ATS. Also, the FAA is using the CAS to compute the basis for its Overflight user fee. In addition, the CAS produces the FAA's Statement of Net Cost. In so doing, the FAA is one of the few Federal agencies that use a cost accounting system to produce that report.

We will interface the CAS with DELPHI when the FAA has implemented that system. However, that does not render the CAS ineffective until that time. The CAS currently relies on Departmental Accounting and Financial Information System (DAFIS), the Department's legacy core accounting system, for its financial information. Therefore, we believe that the OIG should give the FAA credit for what it has accomplished by adding "fully" or "more" before "effective."

Page 2: Results in Brief section, second bullet, second and third sentences:

OIG Draft Report: "One of FAA's first steps planned for 2001 was to define measures of performance for its program and activities within its lines of business and develop ways to monitor those measures. FAA did not achieve its goal and has yet to define any measures of performance."

FAA Comment: The Report does not recognize that the FAA developed corporate Government Performance and Results Act (GPRA) performance measures in FY 2001. Most of these are "operationally" focused. For FY 2002, FAA has developed more balanced measures that include financial, customer, and employee goals.

Page 3: Second bullet (fourth bullet under Results in Brief section):

OIG Draft Report: The Report states "FAA's systems for tracking assets are not reliable.... FAA plans to have a fully implemented property and financial management system to track its assets and compute depreciation by November 2002."

FAA Comment: The Report does not recognize that the FAA made a major stride in resolving this problem by implementing the Interim Fixed Asset System (IFAS) during FY 2001. As a result, the IFAS was able to automatically calculate depreciation for FY 2001. The FAA acknowledges that it has not fully integrated IFAS with DAFIS. However, when the FAA implements DELPHI, the fixed asset system that replaces IFAS will be a fully integrated part of the financial management system.

Page 3: Third bullet (fifth bullet under Results in Brief section), second to last sentence and Page 8, Internal Controls section, last sentence:

OIG Draft Report: "... FAA needs to focus on the development of well-documented and comprehensive policies, procedures, and practices concerning an adequate system of internal controls, as required by Federal accounting standards. FAA has not prepared this comprehensive documentation."

FAA Comment: The Report does not recognize that FAA has already documented a major part of its cost accounting processes and procedures. We are close to completing the technical documentation of the Front End Control System (FECS) and are completing the technical design documentation of PeopleSoft. We have completed PeopleSoft "user point of entry" and production checklists. We have drafted policies and procedures such as the "Security Handbook" and the "CAS System Change Request Process." We are documenting procedures for LDR quality assurance, requests for projects and activities, CAS standard operating procedures, and configuration management policies and procedures. We will continue our efforts to achieve a comprehensive set of well-documented cost accounting system policies and procedures that provide a reliable basis for an adequate system of internal controls.

Page 3: Third bullet (fifth bullet under Results in Brief section), last sentence:

OIG Draft Report: "The lack of adequate internal controls brings into question the integrity of amounts reported for specific FAA activities and services."

FAA Comment: The Report does not recognize that FAA has already implemented internal controls to protect system integrity. We agree that completely documenting CAS policies, procedures and processes will reinforce the existing internal controls.

Page 6: First paragraph (second paragraph under Findings and Recommendations section), last two sentences:

OIG Draft Report: "The implementation of the cost accounting system may be affected by the transfer of the Civil Aviation Security functions to the new Transportation Security Administration. As of December 14, 2001, FAA officials had not determined the impact of this change on the cost accounting system."

FAA Comment: The Department has asked the FAA to support the Transportation Security Administration by continuing to implement the cost accounting system for what was formerly known as the Civil Aviation Security line of business. The FAA has agreed to do so. The long-term strategy for a cost accounting capability at TSA has not yet been determined.

Page 6: Cost Accounting System Implementation Schedule section, first paragraph, last sentence:

OIG Draft Report: "Further, the cost accounting system for three lines of business (Air Traffic Services, Airports, and Certification and Regulation) will be delayed because the labor distribution system will be implemented with Delphi."

FAA Comment: Although the alignment with the DELPHI schedule delays CAS or LDR implementation about a month and a half, the outcome of having FY 2003 CAS data for these organizations does not actually change.

Page 6: Cost Accounting System Implementation Schedule section, second paragraph, second to last sentence:

OIG Draft Report: "FAA also has to negotiate labor distribution reporting with its labor unions, which could further delay implementation of the Cru-X and cost accounting systems."

FAA Comment: This part of the Report does not recognize that the FAA has already begun LDR negotiations with the unions. FAA sent a letter to all union presidents on October 4, 2001, notifying FAA unions that we are ready to implement LDR. The FAA gave unions 30 days (or as stipulated by contract) to notify FAA of their intent to bargain the impact and implementation of LDR. We are in the process of briefing the unions and

signing memorandums of agreement for LDR implementation. The FAA does acknowledge that the impact and implementation of labor distribution reporting may be complex and lengthy. We recommend the sentence be changed to read, "FAA also has yet to complete negotiations for labor distribution reporting...."

Page 7: Fourth paragraph, last sentence:

OIG Draft Report: "Today, FAA is not sure it will be able to fully implement cost and performance management during FY 2004, as planned."

FAA Comment: Cost and Performance Management (C/PM) is a continuing process that requires a major shift in organizational culture and behavior. Thus, it is a multiyear activity. During FY 2001, we made significant strides in helping AMC and ARC institute a C/PM culture. We envision providing similar support for four other FAA organizations in FY 2002. Our plan, contingent upon funds availability, is to fully implement cost and performance management by FY 2004. Based on a survey of other organizations that have implemented C/PM, it is likely that FAA will not accrue full benefits from the program until well after FY 2004.

OIG Recommendations.

<u>OIG Recommendation</u>: Revise the target date for having a fully functioning cost accounting system, considering the interface requirements of the labor distribution and Delphi accounting systems.

FAA Response: Concur. The Assistant Administrator for Financial Services and Chief Financial Officer (ABA) recently notified affected organizations that we would align CAS and/or LDR implementation in their LOB with the DELPHI implementation. We pointed out that this strategy is not a schedule delay nor should it suggest a lessening of corporate or LOB efforts. It is merely a prudent business decision to avoid using the DAFIS accounting structure for a short period before changing to the DELPHI structure.

We recognize that our schedule is aggressive. In addition to the LOB implementations, we also face the challenging task of building CAS and LDR interfaces with DELPHI. However, we remain fully committed to meeting our schedules. As we move closer to the scheduled implementation dates, we will monitor and assess our progress to determine whether we can make those dates. We expect to reach a definitive determination by the end of June 2002.

<u>OIG Recommendation</u>: Increase monetary and personnel resources to achieve implementation of cost and performance management in FY 2003.

FAA Response: Concur. Once ABA receives its FY 2003 budget, it will prioritize its projects including DELPHI, CAS, LDR and C/PM. We recognize the need to apply appropriate resources to our various projects. Nevertheless, the criticality of each project, combined with our funding level, will be the defining point for our decisions.

At the beginning of FY 2003 we will know our overall ABA funding level. At that time the CFO will make a final decision on the allocation of funding to ABA's projects. This decision will most equitably apply our limited resources across projects to provide C/PM the appropriate resource level.

<u>OIG Recommendation</u>: Modify the cost accounting system to allocate the administrative overhead costs for FAA Headquarters to lines of business using a total cost base.

FAA Response: Concur. FAA will analyze each FAA Headquarters overhead cost pool (staff offices) to determine the most logical, relevant and suitable basis to use in allocating administrative overhead costs to LOB's. We will base our study on the nature of the supporting services provided by each staff office and their relationship to the LOB's. We will complete our study and make appropriate changes by the end of March 2002.

<u>OIG Recommendation</u>: Prepare a handbook of comprehensive and well-documented policies and procedures for an adequate system of internal controls for the cost accounting system.

FAA Response: Concur. We will complete this work by the end of FY 2002.