

*Flight Service Stations
Cost Accounting Practices*

Federal Aviation Administration

*Report Number: FI-2002-065
Date Issued: December 11, 2001*



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

Memorandum

Subject: **ACTION:** Report on Flight Service Stations
Cost Accounting Practices, FAA
FI-2002-065

Date: December 11, 2001

From: Alexis M. Stefani 
Assistant Inspector General for Auditing

Reply To
Attn Of: JA-20:x61496

To: Federal Aviation Administrator

This report is one in a series on implementation of the Federal Aviation Administration (FAA) cost accounting system. This report presents our audit results on FAA cost accounting practices being implemented for flight service stations, a service within Air Traffic Services, which is one of FAA's six lines of business. FAA has 61 flight service stations.

Our audit objectives were to evaluate the appropriateness of cost accounting practices used for the assignment and allocation of costs to, and within, flight service stations, and to ensure that costs were accurately reported in the cost accounting system in accordance with applicable accounting standards. Our audit scope and methodology are in the Exhibit.

RESULTS IN BRIEF

FAA is making progress in implementing its cost accounting practices for flight service stations. We verified that costs reported in the cost accounting system were the same as reported in the Department's financial accounting system. Based on data produced by the cost accounting system, we estimated that the total Fiscal Year (FY) 2001 operating cost was \$515 million for flight service stations.

Federal accounting standards require the accurate assignment of costs for services to the responsible organization. We found that the cost accounting system, as currently programmed, would assign \$444 million of the \$515 million directly to FAA's 61 flight service stations. However, the remaining \$71 million would not be assigned, as required. Specifically, \$62 million was not assigned to any of the 61 flight service stations. For the other \$9 million of data processing labor costs, the cost accounting system was programmed to assign these costs to 21 flight service stations because the data processing personnel were located at 21 locations, rather than assign a fair share of these costs to each of the 61 stations benefiting from the data processing services.

The improper assignments occurred because the cost accounting and related automated systems were not designed to assign a fair share of total costs to each of the flight service stations. By identifying and assigning costs to individual flight service stations, FAA would be able to better manage its costs and resources in a more businesslike manner, which would allow FAA to benchmark, or compare, costs among facilities to identify the most efficient practices. FAA could then export these best practices to other flight service stations to increase the overall efficiency of operations.

Knowledge of the actual cost for each flight service station is extremely important to FAA because it is considering consolidating some stations. Three FAA studies have concluded that fewer flight service stations are needed. FAA needs the actual costs of each flight service station to make informed decisions about which stations to consolidate. The Office of Inspector General (OIG) issued a report on December 7, 2001,¹ recommending that FAA develop a strategy to consolidate flight service stations and address the consolidation issues during collective bargaining negotiations. FAA has not responded to the OIG recommendations.

To ensure compliance with Federal accounting standards and good business practices, we made recommendations in our draft report that the FAA cost accounting system be programmed to assign flight service stations' cost among each of the 61 stations, where possible, and improve data accuracy. FAA agreed to take corrective action on all recommendations.

BACKGROUND

FAA has 61 flight service stations that provide briefings to general aviation pilots, initiate and coordinate search and rescue efforts, provide aviation weather information to general aviation pilots, and other flight advisory services. These Government services are provided at no charge to users.

As part of the development and implementation of an FAA-wide cost accounting system, FAA began reporting flight service stations' costs in its cost accounting system in May 2001. Based on the \$43 million of costs reported for May 2001, we estimated that the total operating cost for FY 2001 was \$515 million for the 61 flight service stations.

This is our fifth report related to the development and implementation of FAA's cost accounting system. This report addresses the portion of the cost accounting system being implemented for flight service stations, a service within the Air Traffic Services line of business. The first report² addressed accounting issues regarding system

¹Automated Flight Service Stations: Significant Benefits Could be Realized by Consolidating AFSS Sites in Conjunction with the Deployment of OASIS, Report Number AV-2002-064, December 7, 2001.

²Report on Implementation of Cost Accounting System, Report Number FE-1998-186, August 10, 1998.

development and issues requiring resolution before cost could be captured in the system. The second report³ addressed FAA's efforts to implement the cost accounting system within Air Traffic Services for overflights, which are aircraft that fly in U.S.-controlled airspace, but do not take off or land in the United States. The third report⁴ addressed FAA's Research and Acquisitions line of business, while the fourth report⁵ provided a congressionally-directed status assessment of FAA's efforts to implement its cost accounting system as of December 31, 2000.

The Federal Aviation Reauthorization Act of 1996 (Act) requires FAA to develop a cost accounting system that accurately reflects the asset values, operating and overhead cost, and other financial measurement and reporting aspects of its operations. The Statement of Federal Financial Accounting Standards (SFFAS) Number 4, Managerial Cost Accounting Standards, also requires that Federal entities establish managerial cost accounting practices effective October 1, 1997.

The Federal Accounting Standards Advisory Board has developed managerial cost accounting standards for the Federal Government. These standards are basically the same as those used by private industry businesses, such as the Boeing Company, for (1) setting budgets for services; (2) establishing cost targets for controlling cost and measuring performance; (3) computing cost of services and setting fees; (4) evaluating programs; and (5) making business decisions. Congress and Federal executives need accurate cost information on agencies' programs and services to make policy decisions and to allocate resources. Accurate cost accounting data also alerts Government managers to potential waste and inefficiency.

During FY 1997, FAA purchased commercial off-the-shelf software to design and implement a cost accounting system for its individual lines of business. FAA is designing its cost accounting system in phases, and the current schedule for full implementation of the cost accounting system for all lines of business is September 30, 2002.

The Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (AIR-21) requires that the Department of Transportation (DOT) OIG perform an independent assessment of the adequacy and accuracy of FAA's cost data and cost allocations. In conducting the assessment, the OIG is to assess the reliability of source documents and the data collection process; the system for tracking assets; the basis for establishing asset values and depreciation rates; the indirect cost pools and allocation bases; and the progress FAA is making in cost and performance management.

³Report on Cost and Flight Data for Aircraft Overflights, Report Number FE-2000-024, December 17, 1999.

⁴Report on Design of the Cost Accounting System for Research and Acquisitions, Report Number FI-2001-013, December 18, 2000.

⁵Report on the Status Assessment of FAA's Cost Accounting System and Practices, Report Number FI-2001-023, February 28, 2001.

AIR-21 also requires OIG to submit a report to Congress no later than December 31, 2000, and every year thereafter through FY 2004. Our audit work on the flight service stations' cost accounting practices will be used to satisfy some of OIG reporting requirements under the Act.

ANALYSES OF COSTS

FAA is implementing its cost accounting system to accumulate operating costs for flight service stations. We identified several areas in which the cost accounting system and FAA practices are not compliant with Federal accounting standards and are not consistent with good business practices. As part of this audit, we performed detailed tests and analyses of \$30 million of telecommunication, contract maintenance, and data processing labor costs.

Telecommunication Costs

All telecommunication costs for flight service stations were not being assigned directly to individual flight service stations. Of the estimated \$38 million in FY 2001 telecommunication costs, we found that about \$12 million, while properly captured in the total cost to provide flight service stations' services, was not assigned to any of the 61 flight service stations. This occurred because of the poor quality or the missing cost data within FAA's telecommunication system.

FAA's cost accounting system cannot always read the telecommunication cost data, nor capture key elements of cost data. For example, telecommunication costs are associated with circuits used by individual flight service stations. Circuit data are supposed to include a three-digit location identification code for each flight service station. However, we found that the telecommunication system did not include any location code 16 percent of the time, and included a four-digit location code about 15 percent of the time. The cost accounting system is programmed to read only a three-digit location code and could not read the four-digit location code. Therefore, costs were captured as a total rather than assigning the costs to the appropriate flight service stations.

In December 1999, we reported that FAA's method for determining the share of each service's telecommunication cost needed to be improved.⁶ Since that time, FAA has improved the assignment of telecommunication costs to flight service stations by using the Telecommunications Information Management System. However, FAA's cost accounting system was designed to capture the \$12 million of telecommunication costs in the total cost to provide flight service stations' services, but not in the cost to operate individual flight service stations.

⁶ Report on Cost and Flight Data for Aircraft Overflights, Report Number FE-2000-024, December 17, 1999.

Contract Maintenance Costs

FAA did not design its cost accounting system to assign about \$9 million in FY 2001 contract maintenance cost directly to its 61 flight service stations. We found that FAA uses commercial vendors to perform maintenance and repairs on equipment in the National Airspace System, and that the maintenance contractors provide very detailed billing invoices. However, FAA's accounting systems currently cannot access this detailed contract billing information electronically.

The invoices we examined listed the FAA facility, including individual flight service stations, where the maintenance or repair work was performed, and the cost of the work. For example, we examined an invoice showing 258 hours of computer support work costing about \$17,000 provided to the Fort Worth flight service station, but this cost was not assigned to the Fort Worth station. FAA needs to develop a method for its cost accounting system to use this vendor billing information to assign actual contract maintenance cost to the 61 individual flight service stations.

Data Processing Labor Costs

FAA's cost accounting system, as designed, captures data processing labor costs totaling about \$9 million for FY 2001, but assigns these costs to only 21 of the 61 flight service stations. Although each flight service station receives data processing services, FAA programmed its cost accounting system to capture the data processing labor costs this way because the data processing personnel are at 21 locations.

To illustrate, the Fort Worth data processing center serves three flight service stations at Fort Worth and McAlester, Texas, and Jonesboro, Arkansas. Because the data processing center is located near the Fort Worth flight service station, FAA's cost accounting system was programmed to capture the total data processing labor costs of about \$461,000 and assign it only to the Fort Worth flight service station. The two other flight service stations are assigned none of these labor costs.

FAA's cost accounting system could be programmed to properly assign data processing labor costs to each of the 61 flight service stations. FAA already measures the activity level of each station by the number of operations. Operations include telephone calls from general aviation pilots to file flight plans, or requests for weather information and other services. To illustrate an acceptable method of assigning the labor costs, we used the total operations, performed from October 2000 through July 2001, at each of the three flight service stations to estimate the amount of cost that should be assigned to each station. The chart on the next page shows our results by station.

<u>Station</u>	<u>Operations</u>	<u>Percent of Total</u>	<u>Allocation</u>
Fort Worth	457,537	47	\$216,000
McAlester	278,660	29	\$134,000
Jonesboro	<u>230,200</u>	24	<u>\$111,000</u>
Total	<u>966,397</u>		<u>\$461,000</u>

Although we manually computed the percentages of operations to assign the costs to each flight service station, FAA could program its cost accounting system to do the computation and assignment automatically.

Compliance with Accounting Standards

Federal accounting standards require the accurate assignment of costs for services to the responsible organization. To be compliant with accounting standards and to be an efficient results-based organization, FAA's cost accounting system and practices need to capture the total costs of operations, and appropriately assign a fair share of these costs to each of the 61 flight service stations. FAA needs this information to better manage its cost and resources in a more businesslike manner. Equally important, FAA would be able to benchmark, or compare, costs among flight service stations, identify the most efficient operations, and then export these best practices to other flight service stations to increase overall efficiency of operations.

RECOMMENDATIONS

We recommend that the FAA Administrator direct that the cost accounting system be programmed to assign the total flight service stations' operating cost among each of the 61 flight service stations, where possible. To develop acceptable methods, FAA should:

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

MANAGEMENT RESPONSE

A draft of this report was provided to the FAA Administrator on November 19, 2001. FAA concurred with the recommendations and provided these comments.

Recommendation 1: Concur. The Telecommunications Information Management System (TIMS) contains the source data for the telecommunications cost assignments and allocations within the Cost Accounting System (CAS). TIMS was designed to meet operational telecommunications management requirements and was not originally intended for the CAS use to which it has been applied. The TIMS office within Air Traffic Services (ATS) is convening a joint ATS/TIMS/CAS team to review the process of data collection, sharing, and analysis among the TIMS system, the National Data Repository (where the TIMS data resides prior to being transferred to CAS), and CAS. This review will be completed by March 1, 2002, and will provide ATS a basis to develop a data integrity improvement plan.

Recommendation 2: Concur. FAA is exploring directly tracing contract costs to projects and activities to improve the accuracy of cost information. Direct tracing would require modifications to the procurement process, contract negotiations, acquisition systems including Acquire (and its future substitute PRISM), and the FAA's core financial accounting system DAFIS (and its replacement DELPHI). FAA will complete this work by the end of FY 2002 and will institute the changes by the end of FY 2003.

Recommendation 3: Concur. ATS will begin implementing the Operational and Supportability Implementation System (OASIS) at each Automated Flight Service Station (AFSS) in June 2002, and will complete the implementation by the end of FY 2005. Deployment of OASIS will eliminate the data processing positions located at the centers and resolve this issue.

The complete text of management comments is in the Appendix.

OFFICE OF INSPECTOR GENERAL COMMENTS

Actions taken and planned by FAA are reasonable, subject to the followup requirements in DOT Order 8000.1C.

We appreciate the courtesies and cooperation of FAA representatives. If you have any questions, please call me at (202) 366-1964 or John Meche at (202) 366-1496.

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AUDIT SCOPE AND METHODOLOGY

We evaluated the reasonableness of the flight service stations' cost accounting practices for the assignment and allocation of cost. We evaluated and tested the accuracy and validity of the allocations, and determined whether the cost was accurately reported in the cost accounting system in accordance with applicable standards. We also verified that the Air Traffic operations labor and telecommunication costs reported for flight service stations in the cost accounting system were the same as reported in the Department's financial accounting system. We performed detailed tests and analyses of \$30 million of telecommunication, contract maintenance, and data processing labor costs.

We performed our audit from June through October 2001 at FAA Headquarters in Washington, D.C., and at the flight service station in Leesburg, Virginia. Our evaluation included an analysis of the \$43 million FAA expended for operation of its flight service stations for the month of May 2001. The analysis 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 they were sufficient to assess the control risk associated with the flight service station portion of the cost accounting system.

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 audit was conducted in accordance with Government Auditing Standards prescribed by the Comptroller General of the United States.



U.S. Department
of Transportation

**Federal Aviation
Administration**

Memorandum

Subject: **ACTION**: Draft Report on Flight Service
Stations Cost Accounting Practices, FAA

Date: December 5, 2001

From: Assistant Administrator for Financial Services
and Chief Financial Officer

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 \$71 million in costs to be properly allocated among the 61 flight service stations. We have not yet produced the final FY01 Service Delivery Point Report for Flight Service Stations, so we do not have the final numbers. We plan to produce that report this week, and will be able to provide you with our comment on the \$71 million in costs by December 12.

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

Chris Bertram
For Chris Bertram

Attachment

**FAA RESPONSE TO OFFICE OF INSPECTOR GENERAL (OIG) DRAFT
REPORT
FLIGHT SERVICE STATIONS COST ACCOUNTING PRACTICES
PROJECT No. 01F3028F000**

OIG Recommendation 1: Improve the accuracy of the data produced by the telecommunication systems by correcting inaccurate and missing telecommunication cost data.

FAA Response: Concur. The Telecommunications Information Management System (TIMS) contains the source data for the telecommunications cost assignments and allocations within the Cost Accounting System (CAS). TIMS was designed to meet operational telecommunications management requirements and was not originally intended for the CAS use to which it has been applied. The TIMS office within Air Traffic Services (ATS) is aware of the data integrity requirements that CAS places on their system. They are convening a joint ATS/TIMS/CAS team to review the process of data collection, sharing, and analysis among the TIMS system, the National Data Repository (where the TIMS data resides prior to being transferred to CAS), and CAS.

This review will be completed by March 1, 2002, and will provide ATS a basis to develop a data integrity improvement plan aimed at the issues identified in the systems review and their resolution.

OIG Recommendation 2: Use detailed vendor billing information to assign actual contract maintenance costs to each of the flight service stations.

FAA Response: Concur. FAA's current practice is to use the best available information to assign contract costs to service delivery points. FAA is exploring directly tracing contract costs to projects and activities to improve the accuracy of cost information. Direct tracing would require modifications to the procurement process, contract negotiations, acquisition systems including Acquire (and its future substitute PRISM), and the FAA's core financial accounting system DAFIS (and its replacement DELPHI). The Office of Cost and Performance Management (APF) will work with the Office of Acquisition (ASU), the Office of Financial Management (AFM) and the DELPHI team to identify the most cost-effective approach. We will complete this work by the end of FY02 and will institute the changes by the end of FY03.

OIG Recommendation 3: Compute and assign data processing labor costs automatically to each of the 61 flight service stations.

FAA Response: Concur. ATS will begin implementing Operational and Supportability Implementation System (OASIS) at each Automated Flight Service Station (AFSS) in June 2002, and will complete the implementation by the end of

FY05. OASIS will replace the Flight Service DATA Processing System (FSDPS). Deployment of OASIS will eliminate the FSDPS positions located at the centers and resolve this issue.

The FAA appreciates the OIG's attempt to propose an interim allocation scheme to assign the current data processing costs to all 61 AFSS. However, the FAA considers the \$9 million of FSDPS cost to be immaterial when compared to the total AFSS cost of \$515 million (less than 2 percent). In our opinion, establishing an interim procedure to allocate this cost would not be cost effective, and would misdirect resources from higher priority work.