

INDEPENDENT ASSESSMENT

OF THE

FEDERAL AVIATION ADMINISTRATION'S

ACQUISITION MANAGEMENT SYSTEM (AMS)

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Prepared by

Booz·Allen & Hamilton, Inc.
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Executive Summary

This document presents the results of Booz·Allen & Hamilton's independent evaluation of the Federal Aviation Administration's (FAA's) Acquisition Management System (AMS). The FAA developed the AMS in response to Section 348 of the Department of Transportation and Related Appropriations Act of 1996, Public Law 104-50, enacted on November 15, 1995, which directed AMS development and implementation to provide for the unique needs of the agency. The AMS became effective on April 1, 1996, with the issuance of the initial AMS Policy.

As stated in the AMS policy:

It is intended to simplify, integrate, unify the elements of lifecycle acquisition management into an efficient and effective system that increases the quality, reduces the time, and decreases the cost of delivering needed services to its customers.

The 1996 appropriations act also called for an independent evaluation of the AMS to assess progress after the first year and recognized the need for assessments to occur for several years after AMS implementation to fully monitor the resulting effects on FAA acquisition management. This is the first independent evaluation to be conducted and is not related to the FAA's internal AMS evaluation, which was completed in May 1997.

This AMS assessment is based on the analysis of both quantitative and qualitative data obtained from contract files, face-to-face interviews, and electronic survey techniques. Survey samples were taken from a cross-section of FAA senior managers, mid-level managers, and workers from various FAA divisions, Integrated Product Teams (IPTs), product sponsors, other FAA organizations that participate in the lifecycle acquisition process, and industry.

An important aspect to consider is that AMS processes and procedures address the full acquisition lifecycle, from cradle to grave, and thus, do not operate in a vacuum. AMS affects and is affected by various factors in that the external environment influence full lifecycle acquisition management, such as organizational structure, organizational roles and responsibilities, and budgetary considerations. While this assessment is primarily focused on the results of AMS implementation, environmental factors that significantly impact AMS implementation and overall success of FAA acquisition reform are also addressed in the findings.

Summary of Findings

Our independent assessment revealed that the FAA has made significant progress since adopting the AMS on April 1, 1996. Specific achievements

include the following:

- FAA has achieved overall improvement in the acquisition management process.
- Time to award contracts has been reduced by more than 50%.
- A greater percentage of contracts are being awarded competitively.
- FAA is awarding more contracts based on best value.
- There appears to be a greater emphasis on the use of commercial-off-the-shelf and nondevelopmental items (COTS/NDI) solutions.

We found some areas, however, that need continued management attention and focus to fully implement the AMS policy efficiently, including the following:

- Ensuring AMS and other reform initiatives are compatible.
- Clarifying organizational roles and responsibilities.
- Establishing and encouraging staff development and training.

Summary of Recommendations

Based on the initial improvements recognized in the early phases of AMS implementation, Booz-Allen's recommendations are based on continuing with AMS policies. Our main recommendations are that FAA should:

- "Stay the course" of AMS implementation policy.
- Develop an overarching process that guides various FAA change initiatives.
- Better define roles and responsibilities across all lifecycle phases.

Exhibit ES-1 presents a summary of our recommendations and relates them to the findings.

FINDINGS		RECOMMENDATIONS												
		1 Continue AMS implementation and evaluation as planned.	2 Improve communications on the evolving FAST.	3 Provide specialized training focused on AMS and its lifecycle approach.	4 Communicate protest and dispute information agency wide.	5 Develop standardized contract documentation templates while allowing flexibility.	6 Define roles and responsibilities across all lifecycle phases.	7 Establish quantitative goals and metrics.	8 Implement a centralized database for contracting.	9 Determine the extent and cause of any decrease in contract awards to SEDB concerns.	10 Establish clear authority and provide adequate resources to staff Office of Dispute Resolution.	11 Develop and implement an integrated approach to budget planning and management.	12 Development and implement outreach program for external stakeholders.	13 Develop an overarching management process that guides various reform and process change initiatives.
1	AMS has demonstrated overall improvement.	●					●							
2	Time to award contracts reduced by more than 50%.	●					●							
3	Greater percentage of contracts awarded competitively.	●					●							
4	FAA awarding contract based on best value.	●					●					●		
5	Small businesses are winning competitively.	●					●							
6	Competitive assessment of high valued contracts are inconclusive.	●					●							
7	Greater use of COTS/NDI for system solutions.	●					●					●		
8	AMS had a rough start. Staff was not prepared.		●	●										
9	Structured JRC decision process yields better results.	●					●							
10	AMS and other process change initiatives are not congruent.										●		●	
11	Organizational responsibilities for life cycle phases are not clear.			●			●				●		●	
12	FAA budget process does not support the AMS life cycle concept.										●		●	
13	AMS policy metrics are not in place.					●	●	●						
14	Contracting files and documentation are not standardized.					●								
15	FAA staff desire greater guidance and training.		●	●										
16	Misconceptions exist about how the Learning System will meet training needs.		●	●										
17	SEDB set-asides decreased.						●		●			●		
18	Protest resolution backlog exists.						●			●				
19	Protest resolutions are not sufficiently communicated.		●		●					●		●		
20	FAA contracting data is not collected and managed consistently.						●	●						
21	External stakeholders have had little involvement.											●	●	
22	Industry has mixed perceptions regarding AMS.											●		

Exhibit ES-1. Summary of recommendations as related to our findings

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1 Introduction

Background

The FAA developed the Acquisition Management System (AMS) in response to Section 348 of the Department of Transportation and Related Appropriations Act of 1996, Public Law 104-50, enacted on November 15, 1995. The Air Traffic Management System Performance Improvement Act of 1996, which is Title II of the Federal Aviation Reauthorization Act of 1996 (Public Law 104-264), grants the Administrator autonomy in carrying out the functions of the agency. The FAA's AMS was developed and became effective on April 1, 1996, with the issuance of the initial AMS Policy. The current policy, *Federal Aviation Administration Acquisition Management System*, dated June 1997, revised and clarified the initial policy. The AMS establishes policy and guidance for all aspects of the acquisition lifecycle, from the determination of mission needs through the planning, procurement, and lifecycle management of products and services to satisfy the mission needs.

The AMS is intended to simplify, integrate, and unify the elements of lifecycle acquisition management into an efficient and effective system that increases quality, reduces time, and decreases the cost of delivering needed services to FAA end customers. The AMS has defined the lifecycle phases as follows:

- Mission Analysis
- Investment Analysis
- Solution Implementation
- In-Service Management
- Service Life Extension.

The FAA conducted an internal assessment and reported the results in its document *Evaluation of FAA Acquisition Reform, The First Year: April 1996 - March 1997*, dated May 1997. As part of the 1997 FAA Appropriations Report 104-785, Congress directed the FAA to determine its effectiveness in terms of how well the objectives in the AMS are being achieved. Using the AMS procurement rules, the FAA initiated a competitive procurement that resulted in awarding a contract to Booz·Allen & Hamilton, Inc. to conduct an independent assessment.

Study Objectives

Specific objectives of the independent assessment are as follows:

- Assess the effectiveness of AMS implementation.

- Evaluate specific efforts by the FAA Administrator and agency in promoting and encouraging full and open competition for contracts over \$50 million.
- Prepare a report and briefing material of the independent assessment results.

Methodology

Our technical approach for conducting the independent assessment focused on two areas:

- **Assess the effectiveness of AMS in terms of achieving desired results.**
 - a. Faster - time reduction from mission needs recognition through contract award and fielding.
 - b. Better - improved product quality.
 - c. Cheaper - better value; more affordable.
 - d. Customer satisfaction.
- **Assess AMS implementation in terms of acquisition process improvements.**
 - a. Evaluate internal and external process improvements.
 - b. Excellence in workforce, including training.
 - c. Promoting & encouraging full and open competition for contracts greater than \$50M.
 - d. Small business contracting.

Our overall technical approach for conducting the assessment is illustrated in Exhibit 1-1.

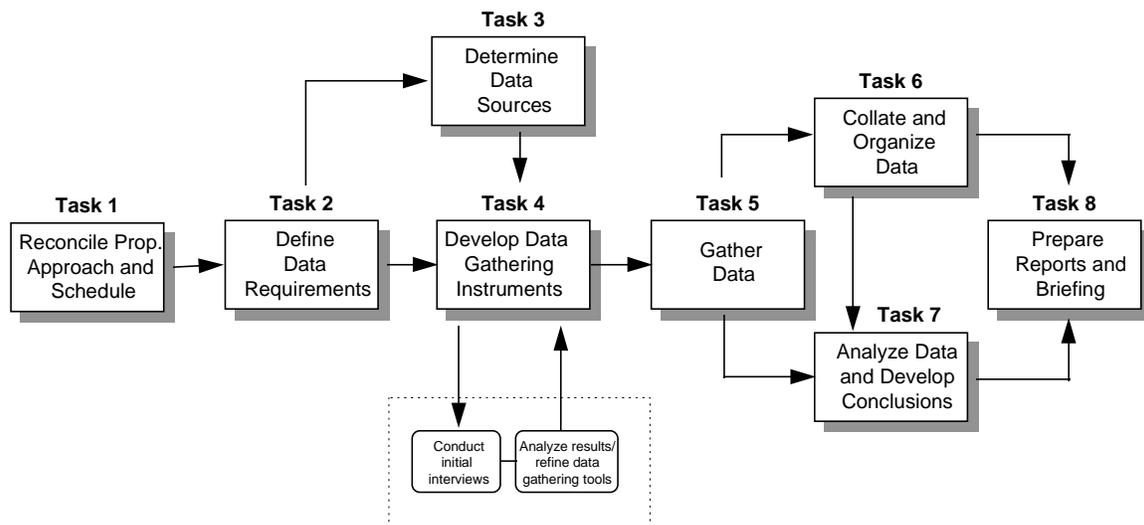


Exhibit 1-1. The Booz·Allen overall technical approach to assessing AMS

Data Collection and Analysis

Data collection for the independent assessment included the following:

- Analyzing information from AMS and other acquisition documents.
- Auditing contract files to collect data on more than 100 contracts dating from two years prior to AMS and from AMS implementation to the present time.
- Conducting more than 80 surveys using both face-to-face interviews and questionnaire survey forms to obtain information from FAA staff and industry representatives.

Contract file audits were performed at three FAA contracting centers: FAA Headquarters, Washington, DC; Mike Monroney Aeronautical Center, Oklahoma City, Oklahoma; and the Southern Region, Atlanta, Georgia. Contracting centers were chosen based on an initial analysis of the number, size, and types of contracts awarded both before and after the AMS became effective, to analyze a representative sampling of pre- and post-AMS contract awards.

Interviews or surveys were conducted with staff at FAA Headquarters, Mike Monroney Aeronautical Center, the FAA Technical Center, and in the Southern Region. The interviews and surveys were conducted with a broad cross-section of FAA personnel involved in all lifecycle phases of the acquisition process. As we began interviewing, the realm of interview candidates was expanded by including personnel at various levels of responsibility. FAA organizations interviewed are listed on page B-3 of Appendix B.

Booz·Allen also surveyed various external stakeholders, including air traffic control (ATC) equipment manufacturers, airspace users, and aviation industry representatives.

2 Findings

This section presents Booz·Allen’s findings based on analysis of the data collected from contract files, interviews and questionnaire surveys. Exhibit 2-1 presents an overview of the findings and information sources.

FINDINGS		STATUS			SOURCE		
		Meeting Expectations	Requires More Attention	Not Meeting Expectations	Info Analysis	Survey/ Interviews	Contract Audit
1	AMS has demonstrated overall improvement	●			●	●	●
2	Time to award contracts reduced by more than 50%	●					●
3	Greater percentage of contracts awarded competitively	●				●	●
4	FAA awarding contracts based on best value	●				●	●
5	Small businesses are winning competitively	●				●	●
6	Competitive assessments of high value contracts inconclusive		●				●
7	Greater use of COTS/NDI for system solutions	●				●	●
8	AMS had a rough start. Staff was not prepared			●		●	
9	Structured JRC decision process yields better results	●				●	
10	AMS and other process change initiatives are not congruent			●	●	●	
11	Organizational responsibilities for life cycle phases are not clear			●		●	
12	FAA budget does not support the AMS lifecycle concept			●	●	●	
13	AMS policy metrics are not in place		●			●	●
14	Contracting files and documentation are not standardized		●		●		●
15	FAA staff desire greater guidance and training		●		●	●	●
16	Misconceptions exist about how the Learning System will meet training needs		●			●	
17	SEDB set-asides decreased		●		●	●	●
18	Protest resolution backlog exists			●	●	●	
19	Protest resolutions are not sufficiently communicated			●	●	●	
20	FAA contracting data is not collected and managed consistently		●				●
21	External stakeholders have had little involvement		●			●	
22	Industry has mixed perceptions regarding AMS		●			●	

Exhibit 2-1. Findings overview

1. AMS has demonstrated overall improvement.

AMS implementation has improved acquisition management for each lifecycle phase, with the most significant improvements coming in the Solution Implementation phase. AMS processes for the Mission Analysis and Investment Analysis phases are just now being applied to new programs, but process improvements are evident. The survey of participants in mission analysis and investment analysis teams indicates that the new AMS processes involving Joint Resource Council (JRC) review and approval of programs requires more comprehensive analysis to address issues throughout the system lifecycle. Assessing the complete results of AMS improvement in these areas can only be realized after FAA programs in the early lifecycle phases progress; but survey participants believe the AMS processes for these phases are better.

The most dramatic improvement is in the Solution Implementation phase, due to significant improvements in the contracting process. A majority of survey participants identify streamlined solicitation process, simplified source selection, and decision making at the proper level as primary reasons for this improvement. Procurements in support of the In-Service Management-Life Extension phase also benefit from this increase in contracting efficiency. For example, representatives from the Operational Support Service (AOS-200) note that they have reduced the contract award time for procurement of modification kits from six months to two months.

The In-Service Management and Service lifecycle phases cannot be accurately evaluated until a significant number of systems developed under AMS reach the field. Based on survey input, however, employee perceptions are that the AMS will have a positive effect on In-Service Management and Service Life Extension processes if support issues are adequately addressed in the early lifecycle phases. Survey results also revealed that the majority of FAA staff believe the AMS is addressing the needs of all lifecycle phases to a greater degree, but there is still room for improvement

2. Time to award contracts reduced by more than 50%.

Based on our analysis of data obtained from auditing more than 100 contract files, there has been about a 53% reduction in the average time to award a contract under AMS. The selected contract files represented most major awards at FAA Headquarters, the Aeronautical Center, and the Southern Region from April 1994 to the present. Selected files initially were to exceed \$5 million dollars. To provide a more extensive database, lower value contracts in the \$1 to \$5 million range were also included, along with selected lower value contracts. The total value of the contracts audited exceeded \$2.8 billion. A detailed summary of our contract analysis method is included in Appendix A. Exhibit 2-2 shows the combined overall award time improvements based on the sample of contracts audited.

Contract Period	Average days to award
Pre-AMS (4/1/94 - 3/31/96) (Procurement request to contract award)	380
Post-AMS (4/1/96 - 6/97) (Procurement request to contract award)	178
Savings in Days	202
Time Savings (percentage)	53%

Exhibit 2-2. Award time improvement based on contracts audited

3. Greater percentage of contracts awarded competitively.

The FAA is awarding contracts primarily through competition, and the percentage of noncompetitive awards has dropped. AMS policy encourages competition, and survey findings indicate that its streamlined contracting processes have made it easier for product teams to compete contracts. We compared the number of competitive awards to the total number of contract awards in our data sample for the pre-AMS and post-AMS periods. Exhibit 2-3 shows the increase in the percentage of competitive contract awards for our sample data set.

Type of Award	Pre-AMS	Post-AMS
Competitive	39	26
Noncompetitive	28	3
Total	67	29
Percentage competitive	58%	90%

Exhibit 2-3. Percentage of competitive awards to total awards

4. FAA is awarding contracts based on best value.

Selection of best value solutions is a key objective of AMS. From interviews with contracting officers and members of integrated product teams, we found that source selection teams are using past performance of bidders and qualifications lists to help identify the best-value solution for their acquisitions. When asked if best value solutions were encouraged in AMS policy, 88% of survey respondents said they were. We also found evidence, in the form of decision justification memorandums, for the selection of best value alternatives during our contract file data collection process.

5. Small businesses are winning competitively.

Small businesses are now competing for and winning contracts rather than receiving direct awards through single source awards or Small Business Administration (SBA)

direct awards. Data from the FAA Small Business Utilization Office shows an increase in awards of competitive contracts to small businesses.

6. Competitive assessment of high value contracts are inconclusive.

There has been an insufficient number of AMS contracts over \$50 million to assess whether there is special emphasis on encouraging competition for large contracts. One of the stated goals of this study was to specifically evaluate efforts to encourage competition for contracts over \$50 million. In our contract file data analysis, we found only two AMS contracts with award values over \$50 million. One was a single source award to a vendor that was the only certified source for bomb detection equipment. The other contract was a competitive procurement. In addition, a large aerospace contractor received a single source contract for Wide Area Augmentation System development and implementation that had an initial award value of \$16.1 million, but the contract value has increased above \$50 million. In our survey, 74% of respondents believed that the FAA promotes competition as a preferred method of contracting. Given the statistically limited data regarding this subject, we cannot draw a definite conclusion and believe the subject requires additional investigation.

7. Greater use of COTS/NDI for system solutions.

Findings indicate a strong emphasis on use of commercial off-the-shelf (COTS) and non-developmental item (NDI) solutions throughout the agency. Over 75% of survey participants indicated strong senior management encouragement for the use of COTS/NDI as solutions for new equipment requirements. Survey participants believed that COTS/NDI solutions are quicker and cheaper. While pursuit of COTS/NDI solutions may result in faster procurements, additional time and data collection are needed to determine whether this approach is more cost effective in the long term. Survey participants indicated that COTS/NDI issues that need further study include: the effects of supporting faster technology refreshment rates (every 5 to 7 years versus a 20 year lifecycle), external interfaces to legacy and other COTS/NDI systems, and human factors associated with procuring equipment that is not customized explicitly for the user.

8. AMS had a rough start. Staff was not prepared.

AMS was developed and became effective within a very short timeframe. Training classes for staff involved in acquisition were available, but were not mandatory. Based on our interviews, 41% of staff surveyed felt the initial training was inadequate to support a smooth transition. Many contracting officers and technical staff, who were involved with contracts in process, felt there was insufficient guidance, especially for contracting actions already in process. With the implementation of AMS, the FAA virtually stopped using the SBA for 8(a) set-aside contracts. AMS policy calls for the establishment of an Office of Dispute Resolution. Based on information from the temporary director, that office has a significant protest caseload, and a permanent director and sufficient permanent staff have not been selected.

The FAA switched from detailed, rigorous contracting processes under the Federal Acquisition Regulation (FAR) to a broad set of guiding principles in a very short period of time. Based on our experience with change management and cultural shifts for large organizations, it can take as long as two years to fully implement the empowerment and flexibility of a policy such as AMS.

9. Structured JRC decision process yields better results.

Based on AMS policy, the formal JRC approval process now forces a comprehensive approach for Mission Analysis and Investment Analysis. Early indications are that AMS emphasis on lifecycle planning causes the FAA to conduct more detailed planning and analysis in the initial lifecycle phases of system development. Interviews with Air Traffic Services (ATS) personnel performing Mission Analysis, and with staff in the Office of Research and Acquisition (ARA) and ATS performing Investment Analysis, indicate that the process is more structured and requires a more comprehensive analysis to receive JRC approval. The fact that consensus with all internal stakeholders for program plans and system requirements must be achieved prior to JRC review suggests that the team concept is working. Most staff interviewed believe that the Mission Analysis and Investment Analysis processes are requiring more time, but are yielding better results.

Specific interviews with staff involved in the one program (Air Traffic Control Beacon Interrogator (ATCBI) Replacement Program) that was initiated under AMS and has successfully completed the Investment Analysis phase, also support the finding that a structured process is better. It may be too soon to tell whether better products will be fielded as a result of these new processes; however, ATCBI Replacement investment analysis team members felt that addressing key lifecycle requirements and supportability issues early in the acquisition process will have a positive effect on Solution Implementation and In-Service Management phases.

10. AMS and other reform and process change initiatives are not congruent.

While not the focus of this study, our surveys highlighted the need to link or coordinate other reform and change initiatives with the AMS to better support AMS implementation. The areas of personnel and budget were two specific areas where staff believe improvements are needed. Many personnel change initiatives are already underway within ARA, including: development of a strategic plan, preparation of a project plan, formulation of a competency assessment, and plans for instituting workforce excellence, as well as the personnel compensation program. These change initiatives are being closely coordinated with the Office of Human Resource Management (AHR), which is implementing a number of personnel reform initiatives. AHR accomplishments to date include: streamlining the recruiting and staffing processes, converting all employees to Federal Aviation Service (FAS), implementing automated staffing systems, issuing new executive system policies, and simplifying processes for establishing new positions and setting pay.

Our survey regarding the personnel system and career development shows that only 9% believe it supports AMS, 53% felt that the personnel system does not support AMS, and 38% were not sure. Survey results indicate that the budgetary process and establishment of priorities for allocating funds to programs are not clearly understood and communicated within FAA. There is a perception among IPTs and Product Leads that allocation of funding to programs can be changed somewhat arbitrarily, without fully assessing the impacts of budgetary changes, and that the IPTs can never really be certain the budget they have been allocated will remain constant. When asked if the budget and funding processes support AMS and the integrated product teams, only 3% felt it fully supports AMS, 36% felt it supports AMS to some degree, and 43% believe it does not support or is a hindrance to AMS. Another 19% were not sure.

11. Organizational responsibilities for lifecycle phases are not clear.

Findings indicate that over 65% of respondents want better definition of both mission needs analysis and investment analysis roles and responsibilities. The AMS requirement for full lifecycle management of acquisitions is causing confusion regarding the roles and responsibilities of the Office of System Architecture and Investment Analysis (ASD), the IPTs, and ATS. Most respondents indicate that conflicts exist over which organization should lead Mission Analysis and Investment Analysis. Interviews indicate duplication of cost-benefit analysis activities in ASD and IPT organizations. Many interview respondents indicate that there is a conflict between the Office of Requirements Development (ARR) and the IPTs over which organization should lead Mission Analysis activities.

12. FAA budget process does not support the AMS life cycle concept.

The three budget lines of FAA funding (RE&D, F&E, and OPS) are developed and managed separately. Under AMS, the JRC has approval authority for the RE&D and F&E budgets. However, there is no mention of the OPS budget in the policy. The RE&D and F&E budgets have sufficient detail and traceability to specific programs to plan and manage acquisitions, because that is their nature. The OPS budget is not structured to provide cost information traceable to individual programs. Now that the AMS policy is in effect, such detail and visibility into the OPS budget is required to fully support the AMS policy of acquisition management through the entire system life cycle. Representatives from the Mission Analysis and Investment Analysis groups in both the ARA and ATS organizations, along with members of the Systems Engineering and Operational Analysis Team (SEOAT), confirmed that adequate operational support cost data is not available and it is very difficult for these organizations to do comprehensive analysis and planning for the In-Service Management phase of acquisitions. Only 3% of survey participants indicated that the current budget structure supports AMS policy.

13. AMS Policy metrics are not in place.

Contract audit and contract database reviews indicate no evidence of metrics designed to measure performance of agency acquisition activities. Contract audits indicate no evidence of metrics for solution implementation, including contracting activities, program management, and system installation activities. Survey results indicate that 73% of respondents are not aware of performance measures for the mission analysis review and approval cycle. They also indicate no evidence of monitoring techniques for tracking development of acquisition program baselines and investment analysis activities. For the investment analysis phase, 30% of respondents said there were performance measures, 20% said there were no performance measures, and 50% did not know.

AMS policy calls for “a system of program boundaries and monitoring techniques that identify and correct acquisition problems before they become unmanageable.” Existence of metrics makes it possible to monitor acquisition activities to identify and correct acquisition problems. Internal FAA AMS evaluations have also identified a lack of metrics as a problem. The FAA has begun work on developing metrics and monitoring techniques in the areas of contracting, program management, and software development.

14. Contracting files and documentation are not standardized.

Our contract file analyses at FAA Headquarters, the Aeronautical Center, and the Southern Region, show there is little standardization of contract files between the various contracting centers. The degree of variation, or lack of standardization, under AMS is significantly greater than contract files prepared under the FAR. Even within a contracting center, the lack of standardization between various contracting officers was very evident. For example, a significant number of contracts prepared under AMS lacked details documenting the contracting steps and the basis of decisions. While AMS promotes flexibility and does not require standardization, some contract managers did express concerns about the difficulty in administering contracts when there is a lack of standardization. Our interviews with legal staff and the Office of Dispute Resolution also revealed concerns regarding the potential of future contract protests.

15. FAA staff desire greater guidance and training.

Employees want more detailed guidance regarding AMS implementation than the policy currently provides, and they are not fully aware of the resources and features of the FAA Acquisition System Toolset (FAST). In our survey, 73% of respondents believed there is a need for more guidance regarding the mission analysis process and 53% believed the same was true for the investment analysis process. Also, less than half of the survey participants believed that AMS transition training was adequate or readily available. Contracting officers and managers we surveyed in contracting centers outside of FAA headquarters indicated a need for more guidance to augment AMS policy for contracting activities other than major system procurements. Current AMS policy, by itself, does not contain detailed information for construction, real estate, or the recurring purchase of

services and products prevalent outside of FAA headquarters. Since the completion of these interviews, the FAA has updated the FAST and is beginning to add a variety of tools, templates, and procedures for AMS contracting actions. There is also additional guidance for the other AMS lifecycle processes available in the FAST.

16. Misconceptions exist about how the Learning System will meet training needs.

Knowledge of the Learning System, which is being developed as part of the change initiative to improve workforce excellence, is not widespread. The need for additional training was identified from our surveys (see related findings). Surveys at the Aeronautical Center contracts division, overwhelmingly supported the need for a learning system to assist in training. Interviews with the staff from the Office of Business Management (ABZ) provided insight into what the Learning System is intended to accomplish. Several significant reform initiatives are underway in the area of Human Resources Management, with the goal of developing and implementing an Acquisition Workforce Learning System that “encourages life-long learning, active knowledge-seeking behavior, and collaborative learning efforts,” which are core characteristics of the Office of Research and Acquisitions (ARA) Learning System. ARA has developed an Intellectual Capital Investment Plan (ICIP) which lays out a project plan through the year 2000 that includes establishment of competency assessment methods, instituting a learning system, and addressing training, resources selection, and compensation. While significant progress has been made toward these personnel change initiatives, current employees have identified the need for additional training in the near term to better prepare them for the cultural changes, personnel reform, and current acquisition reform, which has started to make significant improvements. The Learning Systems planned over the next two-year period will not fully meet the needs of staff members who have a need for near-term training. The proposed Learning System is, however, a management tool for assessing competencies and managing the use and outcomes of training efforts. There are no specific instructional aspects which are a part of the Learning System within the next two year plans.

17. Socially and economically disadvantaged business (SEDB) set-asides decreased.

While evaluation of small business contracting and, specifically, the set-aside program were not a primary focus of the independent assessment, we examined effects of AMS on the use of SEDBs. Copies of quarterly reports that each contracting center submits to the Office of Small Business Utilization (ARA-5), shows an increase in small business contracting and a decrease in contracts being set aside and awarded to SEDB concerns. Based on the contract files audited, there has been an increase in the percentage of contracts being awarded competitively versus single source awards. Discrepancies were found in the Contracting Information Systems (CIS) database in terms of contracting values for specific contracts, and also some major contracts were not included in the database listing initially provided by the FAA. ASD-200 is conducting its own

assessment of the impacts on SEDBs in an attempt to validate the contracting information used for reporting. Therefore, we did not perform significant analysis focused on trying to identify changes to small business and SEDB contracting.

18. Protest resolution backlog exists.

AMS policy encourages resolution of potential protests at the contracting officer level, but we did not find information to evaluate the number of protests resolved by individual contracting officers. Information obtained from the Office of Dispute Resolution shows that during a 16 month period under AMS (April 1996 through July 1997) 44 protests have been registered with that office. We did not evaluate the degree of risk to the FAA depending on the outcome and associated settlement costs to resolve protests. Data obtained from the FAA legal department (AGC-500) shows that in the 12 month period of fiscal year 1994, there were 51 protests. In fiscal year 1995, there were 56 protests. The fact that there have been 44 protests in the 16 months since the introduction of AMS implies the protest level is not significantly different under AMS.

The numbers of protest cases since AMS are as follows:

- Registered protests - 44
- Protests resolved - 28
 - Actions settled - 11
 - Actions voluntarily withdrawn - 8
 - Actions summarily dismissed - 3
 - Actions denied - 6
- Case backlog - 16

As of the end of July 1997, no one is assigned to the permanent position of Director of the Office of Dispute Resolution (ODR), nor is full-time permanent staff yet assigned. The Office of Dispute Resolution is a new office within the FAA, formed to handle the registered protest caseload. FAA is in the process of interviewing and selecting a permanent ODR director and has also approved several other positions, which will assist the director in dealing with the current backlog of cases. Findings concerning increases in caseload backlogs related to AMS implementation are inconclusive.

Protest registrations and resulting caseload backlogs are holding up neither contract awards nor the start of work while awaiting protest resolution. Procedures under the FAR would normally require the contracting officer to delay award until the protest was settled. Our contract file audits indicate several cases in which contracts were awarded even though a protest was registered. An example is the Wide Area Augmentation System, in which a prime contractor protested the termination and subsequent award to another contractor, but contract work continued during the protest period. AMS seems to support the agency's ability to continue contract work during dispute resolutions.

19. Protest resolutions are not sufficiently communicated.

Results of protest settlements are not being disseminated sufficiently for all staff to apply lessons learned to their activities. Dispute Resolution Office representatives indicate that dispute resolution information is distributed to the Office of Acquisition (ASU-300) organization. Interviews with Aeronautical Center contracting and legal counsel representatives, FAA contracting officers in the Southern Region, and FAA headquarters IPT members indicate that their organizations have not been receiving information concerning protest and dispute resolutions.

Based on interviews, organizations that did receive dispute resolution data indicated that the “lessons learned” information was not sufficient to them. Summaries that describe each protest and resulting resolution exist; findings indicate that organizations want more detail or key indicators to help better understand why FAA won or lost particular cases. Aeronautical Center staff members indicate that this type of information is essential for administering protests in their activity, since all precedents from the old system have been eliminated by AMS implementation.

20. FAA contracting data is not collected and managed consistently.

We found that there are numerous contract databases in use, which are sometimes inconsistent and conflicting. Our initial approach called for identifying contracts at FAA headquarters and two other FAA contracting centers to conduct data audits for our independent assessment. We initially used a database summary from the Contracting Information System (CIS). We found that individual contract centers or contract branches are responsible for entering data into the CIS. During our audits, we found that remote contracting centers maintain their own independent contract databases as well. Within FAA headquarters, different contracting branch managers also maintain individual databases. Inconsistencies exist between the various databases.

As an example, one contract (DTFA02-94-C-94047) at the Aeronautical Center has an award value of \$99,778,792 in CIS, and we selected the file for our analysis. Upon further examination of this contract file, we found that the actual award value was less than \$100,000. As another example, the Standard Terminal Automation Replacement (STARS) contract did not show up in the initial extraction of contracts over \$25,000, because it was a delivery order contract, and the initial award file did not include the delivery orders that followed. Attempts to use the CIS database for assessments such as percentages of contracts awarded competitively versus single source, or those awarded to small businesses or SEDBs were difficult and unreliable.

Our findings did indicate that the FAA is implementing a standardized contracting database management tool called ACQUIRE, which may help to alleviate this problem. We did not, however, evaluate the capabilities of that system.

21. External Stakeholders have had little involvement.

Survey findings and interviews indicate limited involvement by external stakeholders during Mission Need Analysis and Investment Analysis. In answer to the survey question “Are all external stakeholders (non-FAA) involved in mission analysis development?” 36% indicated that the user community was involved in developing the mission need requirements, 32% indicated that the user community was not involved, and 32% were not sure. The question regarding Investment Analysis revealed that 12% believed that there was enough participation by external stakeholders, 62% believed there was not enough participation by external stakeholders, and 27% were not sure. FAA personnel in the 62% category indicate that FAA-derived benefits to airlines were not coordinated well with the airlines. Specifically, the modeling techniques that airlines are using to derive benefits are not being coordinated for analysis with FAA data.

22. Industry has mixed perceptions regarding AMS.

Interviews with FAA and industry representatives indicate that industry has mixed perceptions concerning AMS. Specific findings are as follows:

- SEDBs do not like the decrease in 8(a) awards resulting from AMS implementation. SEDBs believe that FAA no longer is required to meet its SEDB goals due to AMS.
- FAA personnel in the Southern Region indicate that many SEDBs throughout the States in the region do not have access to the Internet, which precludes these SEDBs from monitoring Solicitation Information Requests (SIRs) that would previously have been published in the Commerce Business Daily.
- Under AMS, contracting officers are not required to maintain potential bidders lists. Many contractors indicated that not having knowledge of other companies that are interested in a particular procurement limits their ability to identify potential competitors and teammates.
- The majority of contractors submitting proposals under the competitive procurement process like the idea of being eliminated early from bidding on contracts they have little chance of winning. Early elimination saves these contractors bidding and proposal money.
- Some contractors do not like the idea of qualified vendors lists (QVLs), because they believe it is unfair not to have full and open competition.

3 Recommendations

This section presents Booz·Allen’s recommendations based on the analysis of our findings. Exhibit 3-1 presents a summary of our recommendations as related to the findings described above.

FINDINGS	RECOMMENDATIONS												
	1 Continue AMS implementation and evaluation as planned.	2 Improve communications on the evolving FAST.	3 Provide specialized training focused on AMS and its lifecycle approach.	4 Communicate protest and dispute information agency wide.	5 Develop standardized contract documentation templates while allowing flexibility.	6 Define roles and responsibilities across all lifecycle phases.	7 Establish quantitative goals and metrics.	8 Implement a centralized database for contracting.	9 Determine the extent and cause of any decrease in contract awards to SEDB concerns.	10 Establish clear authority and provide adequate resources to staff Office of Dispute Resolution.	11 Develop and implement an integrated approach to budget planning and management.	12 Development and implement outreach program for external stakeholders.	13 Develop an overarching management process that guides various reform and process change initiatives.
1 AMS has demonstrated overall improvement.	●					●							
2 Time to award contracts reduced by more than 50%.	●					●							
3 Greater percentage of contracts awarded competitively.	●					●							
4 FAA awarding contract based on best value.	●					●					●		
5 Small businesses are winning competitively.	●					●							
6 Competitive assessment of high valued contracts are inconclusive.	●					●							
7 Greater use of COTS/NDI for system solutions.	●					●					●		
8 AMS had a rough start. Staff was not prepared.		●	●										
9 Structured JRC decision process yields better results.	●				●								
10 AMS and other process change initiatives are not congruent.										●		●	
11 Organizational responsibilities for life cycle phases are not clear.			●			●				●		●	
12 FAA budget process does not support the AMS life cycle concept.										●		●	
13 AMS policy metrics are not in place.					●		●	●					
14 Contracting files and documentation are not standardized.					●								
15 FAA staff desire greater guidance and training.		●	●										
16 Misconceptions exist about how the Learning System will meet training needs.		●	●										
17 SEDB set-asides decreased.							●	●			●		
18 Protest resolution backlog exists.							●		●				
19 Protest resolutions are not sufficiently communicated.		●		●					●		●		
20 FAA contracting data is not collected and managed consistently.						●	●						
21 External stakeholders have had little involvement.											●	●	
22 Industry has mixed perceptions regarding AMS.											●		

Exhibit 3-1. Summary of recommendations as related to our findings

1. Continue AMS implementation and evaluation as planned.

We recommend that the FAA stay on its current course for AMS implementation as planned. AMS has improved contracting efficiency, competition, best value selections, and structured investment analysis. AMS has been in place for 16 months and is evolving. It is essential that the FAA continue to conduct periodic evaluations of AMS processes and performance in accordance with its policy.

2. Communicate new and planned features of the FAA Acquisition System Toolset (FAST) to its users.

We recommend providing all FAA employees with a summary of the resources available in the FAST, and with notification of updates. The detailed guidance that is now being added to the FAST is the type of information our survey participants want. It is essential, however, that employees know that this information is now available. Notification could be provided through agency e-mail or newsletter. Use of a Web page can be confusing to those not familiar with the Internet. Creating a FAST reference card that assists users with finding information would be helpful.

3. Provide specialized training focused on AMS and its lifecycle approach.

Now that AMS has been in place for over a year and employees are beginning to adjust to the new processes, we recommend follow-on training to help address issues concerning organizational roles and responsibilities, small team leadership, and conflict resolution. Training could be segmented into general and detailed courses. General courses could be targeted to managers and employees with limited acquisition responsibilities and cover the major AMS objectives, general process flows, and significant differences between AMS and FAR. Detailed courses could target product team members and cover the processes associated with each AMS lifecycle phase. Team leadership and conflict management training could also be offered. Acquisition team concepts associated with AMS, in particular the Mission Analysis and Investment Analysis phases, require team leaders to be proficient in team leadership skills and conflict management. These skills are essential to conduct the many team meetings required to support the acquisition process effectively.

4. Communicate protest and dispute information agencywide.

We recommend that the Office of Dispute Resolution provide information concerning the basis of contract disputes and protest resolutions to all contracting centers, product teams, and legal offices. Interviews with FAA legal counsel at the Aeronautical Center and Southern Region revealed that there was little guidance regarding dispute resolution based on AMS case studies. Contracting centers identified the need to develop a set of precedents to guide their actions for protest resolution, based on why certain contracts were protested and the key reasons that FAA either won or lost the case. Disseminating protest and dispute decisions throughout the agency can help reduce repetitive causes and

increase the probability that each activity will perform better in resolving similar contracting issues.

5. Develop standardized contract file documentation.

We recommend developing a standard contract file index form that identifies key documents and milestones with corresponding approval dates. Agencywide standardization of contract files may improve data collection efforts for AMS performance monitoring. Contract file index forms could be added to the FAST and may provide a quick method of summarizing key contract information. Standardized contract file forms on the FAST could also serve as a data entry tool for contracting management databases. Our examination of contract files revealed nonstandardized index reference sheets across and within each organization.

6. Define roles and responsibilities across all lifecycle phases.

We recommend that, for each life cycle phase, AMS policy clarify and specifically identify organizational roles and responsibilities for the following:

- Lead organization
- Support organizations
- Management of activities and personnel
- Decision makers and an appellate process
- Interrelationship between organizations.

Survey results showed that individuals felt a need to better understand their roles and responsibilities and what functions organizations should be responsible and accountable for in each AMS lifecycle phase. This was particularly evident in the Mission Analysis and Investment Analysis phases.

7. Establish quantitative goals and metrics.

We recommend establishing high-level metrics and implementing a tracking program to capture performance data in key AMS areas. Performance metrics are needed for all lifecycle phases. Interviews indicated that the FAA is working to establish performance metrics to monitor AMS implementation progress; however, there is no evidence of formal performance measurement programs in place at the present time. Identification of a simplified subset of key performance standards for each lifecycle phase may help the different metrics working groups to prototype data collection and analysis tasks as development and implementation of AMS metrics evolve.

8. Implement a centralized database for contracting.

We recommend establishing a centralized contracting database to accurately measure AMS success. We further recommend that the database include contract planning and implementation data, contract award values, and performance milestones. Interviews indicate that FAA is planning to develop a standard automated contracting tool under the ACQUIRE program. Implementation of this system should yield the required data. As an interim measure, we recommend that a single performance measuring system, such as the one being used at the Aeronautical Center, should be implemented agencywide to track contract planning and award information.

9. Determine the extent and cause of any decrease in contract awards to SEDB concerns.

We recommend that the following actions be implemented:

- Establish realistic SEDB goals and incorporate them into AMS policy.
- Articulate the goals to all FAA contracting activities.
- Monitor SEDB awards.

Our findings indicate that ASD-200 is currently investigating the perceived decrease in SEDB contract awards.

10. Establish clear authority and provide adequate resources to staff the Office of Dispute Resolution.

We recommend that the FAA expedite determination of appropriate ODR staffing levels, and provide the office with permanent staff and appropriate authority to conduct its mission. The ODR has no clear authority to issue agency determinations with the force and effect of law. Interviews indicate that this authority will be granted before the end of 1997. The effects of the lack of permanent staff on the current caseload backlog are undetermined.

11. Develop and implement an integrated approach to budget planning and management.

We recommend tracking better and more detailed operations and maintenance lifecycle cost data to support AMS full lifecycle planning and management more efficiently. The AMS lifecycle management concept requires maintaining system operations and maintenance cost data at a greater level of detail than what is currently available. Failure to identify accurate cost data may lead to significantly higher supportability costs and adverse maintenance consequences upon system fielding and operation.

12. Develop and implement an outreach program for external stakeholders.

We recommend developing an outreach program for external stakeholders to allow more information exchange, better definition of airspace user needs, and greater understanding of agency acquisition requirements and constraints. External stakeholders include representatives of commercial air carriers, general aviation, and industry groups. AMS represents a new way for the agency to conduct its business, and an outreach program may provide the mechanism for improving communications with these external stakeholders.

13. Develop an overarching management process that guides various reform and process change initiatives.

We recommend developing an overarching management process to ensure congruent development of the various reform and process change initiatives. The overarching management process may help reduce potential conflicts between agency reform and change initiatives, such as the AMS and IPDS full life cycle management concepts and operating philosophies. Other affected reform initiatives include personnel reform and agency budgetary reform.

APPENDIX A

**AMS SOLUTION IMPLEMENTATION
PROCESS ANALYSIS**

A-1 Introduction

This section provides an assessment of AMS effectiveness in the Solution Implementation phase of the acquisition lifecycle. Solution Implementation begins after the JRC makes an Investment Analysis decision and selects a solution from the Investment Analysis alternatives, upon which an acquisition program is then officially established. The Solution Implementation phase is complete when all systems are fully operational and delivered to the user community. The Solution Implementation phase encompasses development of acquisition strategy, system requirements documentation, source selection planning, solicitation preparation, solicitation release to industry, proposal evaluation, source selection, and contract performance. The introduction of AMS allowed fundamental changes to this process. Relief from Government-prescribed procurement regulations and statutes such as the Federal Acquisition Regulations (FAR), Small Business Act, Competition in Contracting Act, and the Brooks Act, as well as changes to protest forums, have enabled the FAA to field new systems and equipment through faster, better and less expensive procurements.

A-1.1 Organization and Content of Appendix A

This appendix contains the analysis of the Solution Implementation phase of the AMS. The analysis consists of two major sections, as follows:

- Section A-2, Process Analysis, describes our analysis of the AMS processes in the Solution Implementation lifecycle phase.
- Section A-3, Contract File Audits, contains the analysis of the Solution Implementation phase based on contract file audits.

Appendix A contains two annexes.

- Annex 1, Data Summary, contains the contract files reviewed.
- Annex 2, Contract File Data Summary Worksheet, contains the contract file audit results categorized by pre- and post-AMS contracts, and a summary of the results.

A-2 Solution Implementation Process Analysis

The results of this process analysis are based on a review of FAA contract files, available databases, contracting policy and procedures, acquisition documentation research, and survey input. Findings are based upon statistical interpretation of contracting process data comparing award cycle times of pre- and post-AMS contracts.

A-2.1 Contracting Process

The AMS Solution Implementation phase includes all steps necessary to develop and implement a proper acquisition strategy, select a contractor, award a contract, administer it through its performance period, and deliver the system or service. Exhibit A-2-1 outlines the process flow of a typical FAA competitive contracting action. The individual process steps are explained and compared pre- and post-AMS where appropriate.

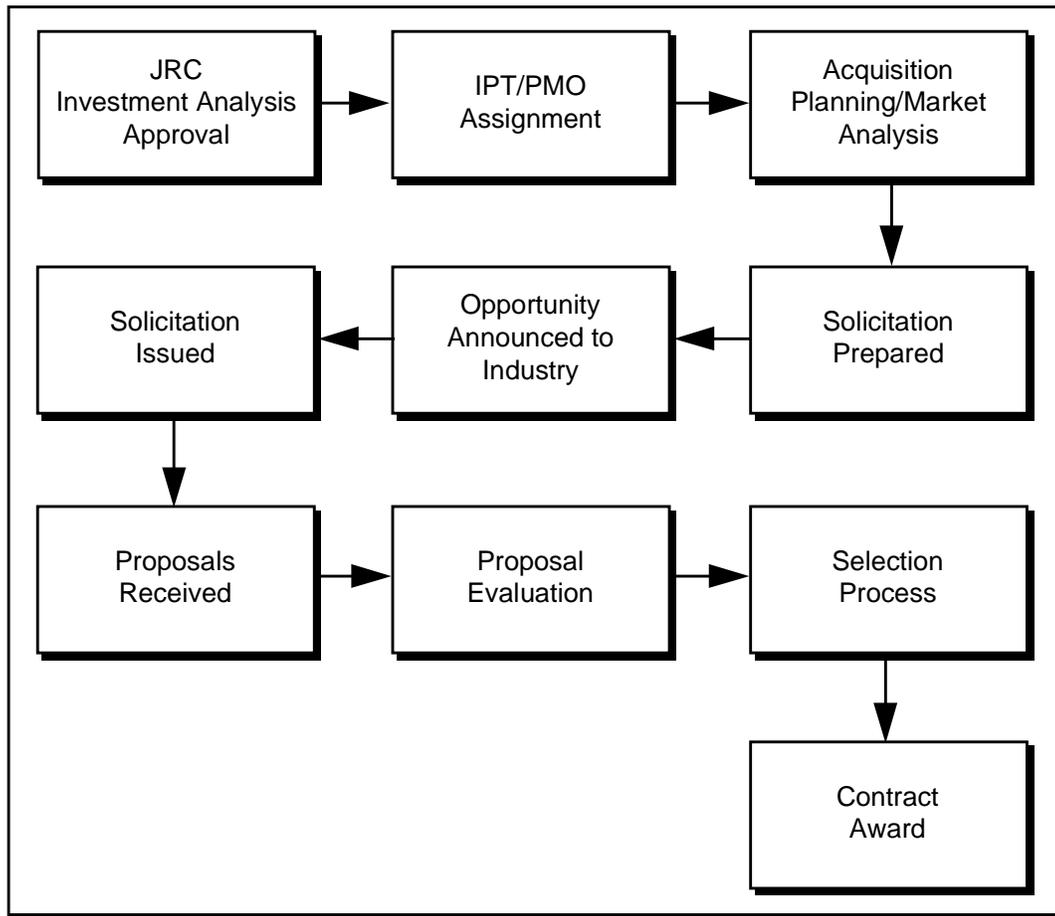


Exhibit A-2-1. A Typical FAA Competitive Acquisition Process

A-2.2 Acquisition Planning and Market Analysis

Following JRC selection of an Investment Analysis alternative and assignment of an Integrated Product Team (IPT) to implement the solution, development of an acquisition strategy is the first order of business. Under AMS, an Acquisition Strategy Paper is prepared within a month after IPT assignment. It reflects the overall approach for program implementation. Prior to AMS, FAR Subpart 7.1. (as supplemented by FAA regulation) also required preparation of an acquisition plan. Both plans define technical, financial, small business participation, program milestone, and other aspects of the proposed acquisition. They include such considerations as:

- Acquisition approach
- Funding strategy
- Capability or performance requirements
- Delivery or performance period
- Tradeoffs
- Risks
- Sources of supply
- Extent of competition
- Sole source methodology
- Contracting considerations
- Budgeting and funding information
- Logistics considerations
- Government-furnished property and materials information
- In-service support strategy
- Acquisition cycle milestones
- Other considerations

The Acquisition Strategy Paper (ASP) differs from the FAR acquisition plan in the timing of submission, participating organizations, and approval levels. The ASP is submitted within 30 days after program inception and is prepared and approved by the IPT. Pre-AMS acquisition plans were typically prepared later than 30 days after program inception and required higher approval levels, requiring many more signatures. This would suggest the ASP process allows more timely program implementation.

Market analysis is necessary for programs whose value does not necessitate a formal ASP or acquisition plan. It is used to determine the suitability of commercial products to meet program or project requirements. It may involve telephone surveys, Internet information exchange or other methodologies to determine the appropriate acquisition strategy. Before AMS, the FAR did not cite a clear preference for commercial items and no evidence was found in the contract file reviews that market surveys were conducted. The Federal Acquisition Streamlining Act of 1994 and subsequent FAR changes (Part 12 - Acquisition of Commercial Items and Part 13 - Simplified Acquisition Procedures) now emphasize market surveys as a necessary step in acquiring commercial items. There is little difference between AMS and current FAR market survey guidance.

Following preparation of the ASP or acquisition plan, the next order of business is to begin implementing the solution. This encompasses completing the procurement request package, approving single source or small business set-asides, and preparing more detailed lists of deliverables, schedules, supplies, and so on for contractor information. This information can include:

- Funds certification
- Procurement Request (PR) coordination sheet

- Approved ASP or acquisition plan (containing cost estimates, market survey results, and alternatives analysis)
- Delivery schedules
- Approved justification for other than full and open competition (if single source action)
- Source selection planning.

Under AMS and the Integrated Product Development System (IPDS), the IPTs are empowered to approve all acquisition decisions including single source decisions and competitive selections. Prior to AMS, most sole source decisions and source selections were made at the agency administrator level. Enabling the IPT to perform these actions saves processing time.

A-2.3 Solicitation Preparation

This critical part of the acquisition process revolves around the preparation of the proposed contract. This includes the Contract Line Item Number (CLIN) structure, delivery requirements, special terms and conditions, proposal instructions, selection criteria, and assembly of the requirement documentation. These documents may include the Functional Requirements Specification, Work Breakdown Structure (WBS), Statement of Work (SOW), Contract Data Requirements List (CDRL), Security Guideline Requirements, and all other contract-specific information, such as site survey reports or program descriptions.

The contract file audits did not document the size or content differences between pre- and post-AMS contracts. Findings indicate that post-AMS contracts were generally of smaller dollar values on average than pre-AMS contracts. There was a notable change in general terms and conditions, resulting from FAR provisions being replaced with AMS provisions.

A-2.4 Opportunity Announced to Industry

Prior to AMS, a contracting opportunity was announced through publication in the Commerce Business Daily (CBD). This action was generally mandatory for all contracting actions exceeding \$10,000, and there was a minimum 15-day period from publication to solicitation issuance. Under AMS, the FAA Internet bulletin board service provides notice of opportunities, Solicitation Information Requests (SIRs), advance copies of solicitations, and other planning information. In AMS there are no time requirements for posting contracting opportunities. Advantages are eliminating administrative, mailing, and reproduction expenses otherwise associated with solicitation issuance and a reduction in the amount of time advertising contract opportunities. Survey results indicate that there are disadvantages to smaller contractors in the FAA regions that may not have Internet access. Additionally, contractors do not like the concept of no longer having a bidders list (which was developed based on industry responses to the

CBD announcement) that provided knowledge of their competitors on certain solicitations.

A-2.5 Solicitation Issued

Prior to AMS, after the complete solicitation was prepared and approved, the CBD announcement published, and the bidders list finalized, the solicitation was released by mail or industry pick-up. The solicitation provided a clear proposal response date, generally 30 days after issuance. Under AMS, there is no prescribed time frame or process requirement. The SIR may include a complete solicitation for industry response. Proposals can be requested in an appropriate time frame. There is no minimum time requirement from announcement through solicitation release.

A-2.6 Proposals Received

Proposals are received from industry on or before the due date for review by the contracting officer and the evaluation team. Under AMS, the number of offerors can be limited based on factors such as contractor qualifications and past performance. This was not as easily accomplished before AMS due to FAR provisions.

A-2.7 Proposal Evaluation

Proposals are evaluated in accordance with the established source selection plan and evaluation criteria set forth in the contract. Generally, this evaluation includes technical, management, past performance, and cost/price areas. For significant awards, the Defense Contract Audit Agency (DCAA) often provides assistance in the price/cost evaluation through the performance of a proposal audit. This audit encompasses a review of the proposed labor rates and overhead factors, bills of material, and subcontract pricing rationale. FAA personnel generally perform technical reviews of the proposals. This can include operational demonstrations of proposed products. Under AMS, there is greater latitude in discussing proposals with offerors. FAR regulations prohibited discussions with one or a limited number of bidders. AMS allows discussions with any number of offerors, including price discussions. Communications with industry can continue at any time after release of the solicitation, which can save the FAA time by allowing the clarification of solicitation issues in real time.

Upon completion of the proposal evaluation, including resolution of any issues concerning the offerors' proposals being compliant with the solicitation, the Government often requests the submission of a best and final offer (BAFO), which is used as a basis for the Government's selection of the winning contractor(s).

A-2.8 Selection Decision

After proposal evaluations and completion of discussions, the selection decision is made. Under AMS, the IPT is empowered to make the selection decision. Prior to AMS, the

evaluation team presented its findings to the Source Selection Authority (SSA) who was authorized to make the selection decision. Allowing the IPT to reach the selection decision without upper management involvement and approval simplifies the process and contributes to the improvement in acquisition lead time.

A-2.9 Contract Award

Once a selection decision is reached, the contract is awarded to the selected contractor(s). Contract administration now begins. The Government must track delivery requirements, review contract reports, process contract payments, and perform any other duties necessary to ensure that the contract terms are satisfied. Once all operational testing is successfully accomplished and the system is delivered, the solution implementation phase is complete.

A-3 Contract File Audits

This section describes the approach, ground rules, findings, and conclusions resulting from the contract file audits of pre- and post-AMS awards. The method chosen to evaluate the contracting process effectiveness of AMS in the solution implementation phase was based on analysis of selected contract files. The selected contract files represent most major awards at FAA headquarters, Oklahoma City, and Southern Region from April 1994 to the present. This resulted in the audit of approximately 100 contract files. Files selected initially were to exceed \$5 million. To provide a more extensive database, contracts in the \$1 to \$5 million range were also included, along with selected lower value contracts. The total value of the contracts audited exceeded \$2.8 billion. A summary of the selected files is listed in the Annex 1, Data Summary, to this Appendix.

The effectiveness of AMS was measured across the complete timeline, from program authorization through contract award. Initial plans were to measure the timeline from approval of a mission requirement document through contract award. During contract file audits, it became clear that this documentation was not generally available. In lieu of using mission requirement documents, the PR form (which was found in tab one of nearly all files reviewed) documented the starting point for the contracting process. This PR noted a start date in the coordination section, which was determined to be the best available measuring point on which to base the acquisition process timeline. Contract award documented the end of the process. A contract data collection worksheet was developed which tracked significant milestones documenting contract development and award. The contract data collection worksheet is illustrated in Exhibit A-3-1.

Milestone No.	Milestone (if applicable)	Start Date	End Date	Cum. Time
1	Financial Approval (PR Issued)			
2	Acquisition Plan			
3	Proposal Evaluation Plan			
4	Sole (Single) Source Justification			
5	Small Business Set-aside determination			
6	GSA procurement authority delegation			
7	Synopsis Issued or FAA Internet Posting			
8	Screening Information Request (SIR)			
9	SIR Responses			
10	Internal RFP Review			
11	RFP released through final amendments			
12	Tech Proposals received			
13	Cost Proposals received			
14	Competitive Range			
15	Oral Proposal Conducted			
16	Subcontracting Plan Approval			
17	Tech Evaluation Complete			
18	Audit Complete			
19	FAA Pricing Complete			
20	Pre negotiation Objective Approved			
21	Negotiations Complete			
22	Post Negotiation Memo			
23	BAFO received			
24	Final Evaluation Report			
25	Selection Decision			
26	Legal Review			
27	Contract Review & Approval			
28	Award			

Exhibit A-3-1. Contract Data Collection Sheet

A-3.1 Audit Ground Rules

To provide a fair comparison of data, the following ground rules were followed in collecting and recording data.

- Letter contract metrics were not included in the summary data. Letter contracts represent authorization to proceed with contract work without establishing firm prices or delivery schedules. Additional time is required to

negotiate these cost and schedule issues after letter contract award. Contract file information was not always available to measure this additional time. Contract file information is included in the timeline measured for a normal contract, which precludes a one-to-one comparison between normal contracts and letter contract award times.

- Program starting dates were based on authorization to proceed against firm requirements. Several pre-AMS programs experienced program redefinition after an initial PR was prepared and preliminary work performed. The starting point was measured from the inception of the revised program authorization.
- In some instances the PR was issued shortly before contract award due to funding issues. In those cases other available schedule dates representing initial program activity were used to measure the starting point.
- One post-AMS file did not include data supporting a legitimate starting point for measuring award time. Accordingly, the abbreviated time was not included in the data.

A-3.2 Summary Findings - Award Lead Times

The results of the contract file reviews demonstrated improvement in contract award process time comparing pre-AMS to post-AMS awards. Exhibit A-3-2a summarizes the award time improvements for 8(a), competitive, and single source contracts. Exhibit A-3-2b summarizes the total award time improvements for all contracts (8(a), competitive, and single source).

Contract Type	Pre-RFP (in days)	RFP - Award (in days)	Total (in days)
Pre- to post-AMS 8(a) contract award time improvement	42	128	170
Pre- to post-AMS Competitive contract award time improvement	157	135	292
Pre- to post-AMS single source contract award time improvement	178	155	333
Pre- to post-AMS overall contract award time improvement	109	92	202

Exhibit A-3-2a. Award Time Improvement for Each Contract Type

Average Award Time	Days
Average Pre-AMS	380
Average Post-AMS	178
Savings in Days	202
Time Savings %	53%

Exhibit A-3-2b. Award Time Improvement for all Contracts Combined

A-3.3 Summary Findings - Extent of Competition

AMS has resulted in an improvement of competitive awards compared to non-competitive awards. Exhibit A-3-3 summarizes the percentage of competitive awards compared to total awards between the pre- and post-AMS contracts reviewed.

Type of Award	Pre-AMS	Post AMS
Competitive	39	26
Noncompetitive	28	3
Total	67	29
Percentage competitive	58%	90%

Exhibit A-3-3. Percentage of Competitive to Total Awards

A-4 Summary

- AMS has led to an improvement in award times from 380 to 178 days, a 53% improvement, based on the review of significant awards made since January 1994.
- AMS has enhanced competition. The files reviewed showed an improvement from 58% to 90% in percentage of competitively awarded contracts based on the sample of files reviewed.

ANNEX 1 Data Summary

Exhibit AN-1 lists the contract files reviewed.

Exhibit AN-1 Contract Files Sample Set

Contract Number	Initial Award (\$)	Final Value (\$)
DTFA01-94-C00062	9,709,200	9,709,200
DTFA01-94-C00063	19,498,895	19,498,895
DTFA01-94-C00065	18,680,601	18,680,601
DTFA01-94-C00070	75,768,601	187,975,250
DTFA01-94-D03009	2,800,000	25,900,000
DTFA01-94-D03018	21,318,420	21,318,420
DTFA01-94-D03020	5,321,622	9,840,800
DTFA01-95-C00005	7,567,367	40,672,376
DTFA01-95-C00009	1,881,219	5,074,100
DTFA01-95-C00013	5,000,000	15,900,000
DTFA01-95-C00015	10,000,000	208,564,715
DTFA01-95-C00018	5,237,000	5,237,000
DTFA01-95-C00026	11,093,352	24,592,816
DTFA01-95-C00027	18,846,602	18,846,602
DTFA01-95-C00031	74,507,024	312,000,000
DTFA01-95-C00039	10,614,845	10,614,845
DTFA01-95-C00047	65,000,000	140,787,031
DTFA01-95-D03007	3,999,816	9,703,679
DTFA01-96-C00006	7,155,152	7,155,152
DTFA01-96-C00036	16,218,503	72,000,000
DTFA01-96-D03001	12,698,427	12,698,427
DTFA01-96-D03002	13,584,775	13,584,775
DTFA01-96-D03008	65,000,000	952,852,000
DTFA01-96-Y00043	517,726	517,726
DTFA01-96-Y01007	2,405,822	2,405,822
DTFA01-96-Y01015	2,997,526	2,997,526
DTFA01-97-C00006	4,000,000	44,500,000
DTFA01-97-C00010	12,322,961	12,322,961
DTFA01-97-C00014	603,187	1,230,000
DTFA01-97-C00017	7,800,000	7,800,000
DTFA01-97-C00018	2,144,637	2,144,637
DTFA01-97-C00019	2,500,000	15,797,759
DTFA01-97-C00020	2,144,637	17,171,413
DTFA01-97-C00021	52,400,000	110,900,000
DTFA01-97-C00035	3,201,450	25,000,000
DTFA01-97-C00036	6,144,250	25,000,000
DTFA01-97-C00037	2,883,038	25,000,000
DTFA01-97-C00056	1,500,000	1,500,000
DTFA01-97-C04000	1,637,466	1,637,466

Contract Number	Initial Award (\$)	Final Value (\$)
DTFA01-97-D03001	2,800,000	25,900,000
DTFA02-91-D91065	926,565	926,565
DTFA02-92-D92903	4,142,600	20,695,587
DTFA02-94-C94047	58,320	215,180
DTFA02-94-D94032	1,680,460	1,860,351
DTFA02-94-D94064	338,200	1,691,000
DTFA02-94-D94308	1,158,133	1,158,133
DTFA02-94-D94318	260,000	5,055,866
DTFA02-94-D94520	874,789	2,379,828
DTFA02-94-D94535	2,000,000	8,636,723
DTFA02-95-C95058	1,576,741	1,576,741
DTFA02-95-C95557	1,540,333	1,540,333
DTFA02-95-D95003	1,443,503	2,942,361
DTFA02-95-D95011	1,359,229	1,359,229
DTFA02-95-D95018	230,580	1,152,150
DTFA02-95-D95310	3,480,432	3,480,432
DTFA02-95-D95501	671,309	3,562,846
DTFA02-95-D95502	1,243,485	1,243,485
DTFA02-95-D95504	2,683,760	6,833,503
DTFA02-95-D95519	931,402	931,402
DTFA02-96-C96005	3,379,554	3,379,554
DTFA02-96-C96019	2,789,920	2,789,920
DTFA02-96-C96033	3,623,300	3,623,300
DTFA02-96-C96036	1,900,460	1,900,460
DTFA02-96-C96051	1,175,000	1,175,000
DTFA02-96-D96021	9,547,411	9,547,411
DTFA02-96-D96502	95,756	2,974,084
DTFA02-96-D96517	5,600,000	16,972,266
DTFA02-96-D96530	1,590,000	1,590,000
DTFA02-96-D96532	8,814,619	20,750,943
DTFA02-97-C97035	104,946	1,946,807
DTFA02-97-D97004	1,416,082	9,703,939
DTFA02-97-D97027	16,784,055	106,747,636
DTFA02-97-D97502	3,061,987	14,585,503
DTFA02-97-D97510	4,613,839	25,000,000
DTFA02-97-D97515	1,793,420	1,793,420
DTFA02-97-D97525	1,793,420	5,998,550
DTFA06-94-C50065	3,186,972	3,186,972
DTFA06-94-C50094	998,394	998,394
DTFA06-94-C50102	2,544,508	2,544,508
DTFA06-95-C30074	208,847	208,847
DTFA06-95-C30075	3,064,869	3,064,869
DTFA06-95-C30107	1,127,000	1,127,000
DTFA06-95-C50013	1,315,424	1,315,424
DTFA06-95-C50043	1,077,689	1,077,689

Contract Number	Initial Award (\$)	Final Value (\$)
DTFA06-95-C50068	2,925,841	2,925,841
DTFA06-95-C50074	2,795,599	2,795,599
DTFA06-96-C30040	2,122,000	2,122,000
DTFA06-96-C30042	2,163,844	2,163,844
DTFA06-96-C30050	4,783,250	4,783,250
DTFA06-96-C30051	1,475,351	1,475,351
DTFA06-96-C30079	1,349,000	1,349,000
DTFA06-96-C50023	1,281,533	1,281,533
DTFA06-96-C50028	1,295,836	1,295,836
DTFA06-97-C30019	5,948,844	5,948,844
DTFA06-97-C50001	1,934,669	1,934,669
DTFA06-97-C50012	5,301,077	5,301,077
TOTAL	\$731,088,278	\$2,809,653,049

ANNEX 2 Contract File Data Summary Sheet

Pre-AMS						
Type Award	Cont. No.	Pre-RFP (days)	Post-RFP (days)	Total Days	Initial Award Value (\$)	Final Award Value (\$)
8(a)	C50013	180	110	290	1315424	1315424
8(a)	C50068	35	115	150	2925841	2925841
8(a)	C50102	131	28	159	2544508	2544508
8(a)	C50065	65	147	212	3186972	3186972
8(a)	C50094	58	240	298	998394	998394
8(a)	C50028	93	102	195	1295836	1295836
8(a)	C50023	31	275	306	1281533	1281533
8(a)	95D95011	117	191	308	1359229	1359229
8(a)	95D95003	194	72	226	1443503	2942361
8(a)	95D95504	360	158	518	2683760	6833503
8(a)	94D94308	329	243	572	1158133	1158133
8(a)	94D94318	378	261	639	260000	5055866
8(a)	94D94520	75	135	205	874789	2379828
8(a)	91D91065	240	180	420	926565	926565
8(a)	94D03020	138	192	330	5,321,622	9,840,800
8(a)	96Y01007	74	96	170	2,405,822	2,405,822
8(a)	96Y01015	253	68	321	2,997,526	2,997,526
Average - 8(a)		162	154	313	1939968	2908714
Competitive	C50043	83	84	167	1077689	1077689
Competitive	C30074	88	50	138	208847	208847
Competitive	C30051	420	130	550	1475351	1475351
Competitive	C30107	43	48	91	1127000	1127000
Competitive	C30075	21	32	53	3064869	3064869
Competitive	C50074	27	44	71	2795599	2795599
Competitive	C30042	15	66	81	2163844	2163844
Competitive	97D97510	420	90	520	4613839	25000000
Competitive	97D97502	145	224	369	3061987	14585503
Competitive	96D96502	158	157	315	95756	2974084
Competitive	96D96517	310	270	580	5600000	16972266
Competitive	96D96532	800	540	1340	8814619	20750943
Competitive	95D95310	50	152	202	3480432	3480432
Competitive	95D95018	210	90	300	230580	1152150
Competitive	95D95519	25	126	151	931402	931402
Competitive	95C95557	41	123	164	1540333	1540333
Competitive	95D95502	120	212	332	1243485	1243485
Competitive	95D95501	60	122	182	671309	3562846
Competitive	94D94064	210	35	245	338200	1691000
Competitive	94C94047	6	120	188	58320	215180
Competitive	92D92903	171	302	473	4142600	20695587
Competitive	94D03009	240	195	435	2,800,000	25,900,000
Competitive	96C00006	100	137	237	7,155,152	7,155,152
Competitive	95C00027	148	349	497	18,846,602	18,846,602

Pre-AMS						
Type Award	Cont. No.	Pre-RFP (days)	Post-RFP (days)	Total Days	Initial Award Value (\$)	Final Award Value (\$)
Competitive	95C00005	107	210	317	7,567,367	40,672,376
Competitive	94D03018	365	176	541	21,318,420	21,318,420
Competitive	94C00062	80	183	263	9,709,200	9,709,200
Competitive	94C00063	80	183	263	19,498,895	19,498,895
Competitive	94C00065	80	183	263	18,680,601	18,680,601
Competitive	94C00070	690	180	870	75,768,601	187,975,250
Competitive	95C00015	260	470	730	10,000,000	208,564,715
Competitive	96C00036	120	150	270	16,218,503	72,000,000
Competitive	95C00031	730	150	880	74,507,024	312,000,000
Competitive	95C00009	158	309	467	1,881,219	5,074,100
Competitive	95C00047	215	407	622	65,000,000	140,787,031
Competitive	96D03001	195	224	419	12,698,427	12,698,427
Competitive	96D03002	195	224	419	13,584,775	13,584,775
Competitive	96D03008	447	195	642	65,000,000	952,852,000
Competitive	97C00006	150	243	393	4,000,000	44,500,000
Average Competitive		242	234	476	\$25,966,752	\$122,701,032
Single Source	96C96005	131	257	388	3379554	3379554
Single Source	97D97515	330	195	525	1793420	1793420
Single Source	96C96019	224	430	655	2789920	2789920
Single Source	95C95058	120	90	210	1576741	1576741
Single Source	94D94032	323	189	512	1680460	1860351
Single Source	94D94535	103	505	608	2000000	8636723
Single Source	95C00013	165	245	410	5,000,000	15,900,000
Single Source	95C00026	60	264	324	11,093,352	24,592,816
Single Source	95C00018	78	256	334	5,237,000	5,237,000
Single Source	95D03007	375	90	465	3,999,816	9,703,679
Single Source	95C00039	420	249	669	10,614,845	10,614,845
Average single source		224	244	469	\$10,514,442	\$81,314,857
Avg Total for All Contracts		192	188	380	\$8,553,961	\$35,433,719

Post-AM\$						
Type Award	Cont. No.	Pre-RFP (days)	RFP-Award (days)	Total Days	Initial Award Value (\$)	Final Award Value (\$)
Competitive	C30019	96	69	165	5948844	5948844
Competitive	C30040	32	23	55	2122000	2122000
Competitive	C30050	61	53	114	4783250	4783250
Competitive	C50012	39	84	123	5301077	5301077
Competitive	C50001	74	45	121	1934669	1934669
Competitive	C30079	23	28	51	1349000	1349000
Competitive	97D97027	62	74	136	16784055	106747636
Competitive	97D97004	215	170	385	1416082	9703939
Competitive	97D97525	87	140	227	1793420	5998550
Competitive	97C97035	78	90	168	104946	1946807
Competitive	96C96051	140	68	208	1175000	1175000
Competitive	96D96530	13	65	78	1590000	1590000
Competitive	96C96033	125	32	157	3623300	3623300
Competitive	96D96021	47	136	183	9547411	9547411
Competitive	96C96036	171	35	206	1900460	1900460
Competitive	97D03001	240	195	435	2,800,000	25,900,000
Competitive	97C00018	58	229	287	2,144,637	2,144,637
Competitive	97C00017	120	180	300	7,800,000	7,800,000
Competitive	97C04000	36	280	316	1,637,466	1,637,466
Competitive	97C00056	90	116	206	1,500,000	1,500,000
Competitive	97C00019	8	33	41	2,500,000	15,797,759
Competitive	97C00020	8	33	41	2,144,637	17,171,413
Competitive	97C00036	97	103	200	6,144,250	25,000,000
Competitive	97C00037	97	103	200	2,883,038	25,000,000
Competitive	97C00035	97	103	200	3,201,450	25,000,000
Average Competitive		85	99	184	\$3,685,160	\$12,424,929
Single Source	97C00010	48	106	154	12,322,961	12,322,961
Single Source	97C00014	66	150	216	603,187	1,230,000
Single Source	97C00021	24	10	34	52,400,000	110,900,000
Average Single Source		46	89	135	21,775,383	41,484,320
8A	96Y00043	120	26	146	517,726	517,726
Average 8(a)		120	26	146	517,726	517,726
Avg Total for All Contracts		82	96	178	\$5,447,340	\$15,020,479

APPENDIX B

**SURVEY QUESTIONNAIRE
METHODOLOGY
AND RESULTS**

B-1 Introduction

This section contains a description of the methodology used to develop the questionnaire, a listing of people interviewed, and consolidated results for each survey question.

B-2 Survey Methodology

In order to adequately assess AMS implementation progress, Booz·Allen developed a survey questionnaire and identified a cross section of FAA employees and industry representatives to obtain observations and opinions concerning the new system.

B-2.1 Questionnaire Development

In order to develop the survey questionnaire, Booz·Allen developed a decomposition and analysis of the Acquisition Management Policy to identify its major and secondary goals and objectives. We then formed questions to gauge progress towards the stated goals and objectives of the policy. The questions were grouped into five sections of the survey instrument, as follows:

1. General AMS Questions
2. Mission Analysis-Related Questions
3. Investment Analysis-Related Questions
4. Solution Implementation-Related Questions
5. In-Service Management Related Questions

Each survey section was organized independently so that so that respondents could complete sections applicable to their involvement with each lifecycle phase and understanding of AMS processes, and skip those with which they were not familiar.

B-2.2 Survey Participant Identification

At the beginning the project, we worked with ASD-200 to identify a cross section of FAA employees to survey regarding AMS implementation progress. ASD-200 polled all major FAA organizations and assembled an initial point of contact list for our survey effort. Using this list as a starting point, we began scheduling and conducting face-to-face interviews. Based on input from initial interviews and an analysis of organizational structure and responsibilities, we then added FAA personnel to the point-of-contact list in order to obtain a broader perspective of AMS progress. Additionally, we identified a subset of IPT members and regional representatives and sent them surveys in electronic format via the FAA electronic mail system. During the six weeks allocated for data collection, we surveyed over 75 individuals from all major organizations in the FAA. Table B-1 provides a list of the organizations we surveyed.

Table B-2.2 Survey Contact List

Organization	Area
AAI	Accident Investigation
AAM	Aviation Medicine
ABZ-1	Office of Business Management
ABZ-100	Learning System
ABZ-100	Strategic Business Management
ABZ-100	ARA Performance Tracking / Metrics
ABZ-200	Human Capital Management
ABZ-200	Learning System
ABZ-200	Evaluation
ABZ-300	Partnership Management
ACP-1	Civil Aviation Security Policy & Planning
ACP-2	Civil Aviation Security Policy & Planning
AFS	Flight Standards
AGC-500	Procurement Legal Division
AGC-70	Office of Dispute Resolution
AHR	Office of Human Resources
AIR	Aircraft Certification
AIT-1	Office of Information Technology
AIT-100	Corp. Infor Resources Mgmt
AIT-200	Information Systems
AIT-400	IPT for IT Acquisition
AIT-500	Data Integration & Decision Support
AIT-5	Chief Scientist for Software Engineering
AIT-3	Special Assistant
AML-210	NAS Integrated Systems Mgt Tm
AML-230	Life Cycle Cost Team
AML-631	Provisioning
AML-200	ARTS Element Manager
AML-200	Nav/GPS Element Manager
AML-200	Comm Element Manager
AML-200	Automation Element Manager
AML-200	Data Product and Analysis
AMQ-1	MMAC Acquisitions
AMQ-1A	MMAC ACQ Spt Division
AMQ-110	Small Business Advisor
AMQ-210	MMAC NAS Contracting Team
AMQ-240	MMAC NAS Contracting Team
AMQ-340	MMAC AV Med/Trng Contracting
AMQ-7	Senior Counsel
AND-300	IPT for Communications Systems
AND-400	Surveillance & Radar
AND-450	Secondary Surveillance Products
AND-710	General Aviation Vertical Flight
AND-730	PL GPS
AND-740	PL Nav & Landing
AOS-200	Operational Support Service
AOS-300	En Route Systems Engineering

Organization	Area
ARN-100	Surveillance Requirements
ARR	Requirements Development
ARN-300	Communications Requirements
ASD-100	Systems Architecture and Integration
ASD-200	Evaluation and CM
ASD-300	NAS Programming and Financial Management
ASD-400	Program Analysis and Ops Research
ASO-7	Legal Counsel
ASO-55	Southern Region Contracting
ASO-453	Southern Region
ASO-455	Southern Region
ASU-310	Nav, GPS and Infrastructure
ASU-320	Surveillance & Weather
ASU-330	Communications & En Route
ASU-340	Facilities Technology & Services
ASU-350	Air Traffic Systems Development
AAL	Alaska
ANW	Northwest Mountain Region
ACE	Central Region
AGL	Great Lakes Region
AWP	Western Pacific Region
ATC-50	Tech Center Acquisitions
ATO-200	Air Traffic Operations
AUA-200	IPT Enroute
AUA-300	IPT Terminal
AUA-300	Stars
AUA-300	Implementation
AUA-400	IPT Weather and Flight Services Systems
AUA-430	Wx Sensors ASOS/AWOS
AUA-460	WARP/ITWS
AUA-500	IPT Air Traffic Management
AUA-600	IPT Oceanic and Offshore

B.3 Survey Results

Booz·Allen developed an electronic spreadsheet and entered the responses from each completed questionnaire in order to tabulate results of our survey. We calculated totals for each possible response to every question in the survey. Next, we calculated the response for each question with the highest total and identified trends to derive and support the assessment finding in the body of the report. Table B-3, provides a list of the multiple choice questions included in our survey questionnaires with the totals for each question response. The following summary tables represent a compilation of the responses from all face-to-face interviews, electronic-surveys and those completed in hard copy format for both the agency and industry surveys.

AMS Independent Assessment FAA Survey Results Summary

Survey Questions	Survey Results	Responses	Total
4-1 Has the reduction in the requirement to follow previous mandatory acquisition policy (e.g., the FARs) improved FAA acquisition management?			
worse than before	0%	0	
no improvement	12%	8	
some improvement	40%	27.5	
significant improvement	40%	27.5	
not sure	9%	6	69
4-2 Has AMS implementation improved organizational efficiency/productivity			
worse than before	3%	2	
no improvement	19%	13	
some improvement	51%	34.5	
significant improvement	17%	11.5	
not sure	10%	7	68
4-3 When compared to the previous acquisition process, has AMS implementation resulted in an integrated approach to all phases of lifecycle acquisition management?			
worse than before	3%	2	
no improvement	16%	10	
some improvement	46%	29.5	
significant improvement	15%	9.5	
not sure	20%	13	64
4-4 Does AMS provide integrated links to the FAA's strategic planning process			
No	25%	16	
Yes	35%	23	
Not Sure	40%	26	65
4-5 Is the AMS process being used throughout the FAA			
No	31%	21	
Yes	54%	37	
Not Sure	15%	10	68
4-6 In your opinion, do senior level managers support AMS implementation			
No	15%	10.5	
Yes	75%	51.5	
Not Sure	10%	7	69
4-7 In your opinion, do mid-level level managers support AMS implementation			
No	16%	11.5	
Yes	75%	52.5	
Not Sure	9%	6	70

AMS Independent Assessment FAA Survey Results Summary

Survey Questions	Survey Results	Responses	Total
4-8 Has AMS implementation improved IPT empowerment in terms of IPT responsibility, authority, accountability and general control over their designated acquisitions?			
worse than before	2%	1	
no improvement	21%	13	
some improvement	46%	28	
significant improvement	18%	11	
Not Sure	13%	8	61
4-9 Are procurement decisions being made at the appropriate management level?			
No	9%	6.5	
Yes	63%	47.5	
Not Sure	18%	14	76
4-10 Does AMS implementation establish an adequate system of checks and balances to ensure public trust?			
No	8%	6.5	
Yes	54%	44	
Not Sure	20%	16.5	81
4-11 Has AMS improved procurement fairness to industry			
No	20%	16.5	
Yes	38%	31.5	
Not Sure	23%	19	83.5
4-12 Does AMS implementation have detrimental affects on the use of small business and socially and economically disadvantaged business?			
No	37%	33.5	
Yes	24%	21.5	
Not Sure	18%	16	90
4-13 Does AMS provide the mechanisms for managing program changes throughout a system's lifecycle?			
No	5%	4	
Yes	53%	42	
Not Sure	22%	17	79
4-14 Has AMS implementation resulted in improvements to the lifecycle acquisition planning process?			
worse than before	2%	1	
no improvement	17%	10.5	
some improvement	43%	27	
significant improvement	18%	11.5	
not sure	21%	13	63

AMS Independent Assessment FAA Survey Results Summary

Survey Questions	Survey Results	Responses	Total
4-15 Has AMS implementation resulted in improvements to the lifecycle acquisition decision-making process?			
worse than before	2%	1	
no improvement	9%	5.5	
some improvement	51%	32.5	
significant improvement	14%	9	
not sure	25%	16	64
4-16 Has AMS implementation resulted in improvements to the system implementation process?			
worse than before	0%	0	
no improvement	15%	9	
some improvement	32%	19	
significant improvement	8%	5	
not sure	45%	27	60
4-17 Does AMS implementation improve management's ability to make an acquisition decision based on program baseline indicators			
worse than before	0%	0	
no improvement	12%	7	
some improvement	37%	22	
significant improvement	19%	11	
not sure	32%	19	59
4-18 Does AMS policy encourage acquisition decisions based on commercial-off-the-shelf (COTS) or nondevelopmental item (NDI) solutions.			
No	2%	2	
Yes	61%	52	
Not Sure	14%	12	85
4-19 Does FAA management focus on procurement of COTS/NDI products?			
No	6%	4	
Yes	77%	49	
Not Sure	17%	11	64
4-20 Has AMS implementation resulted in acquisition time improvements?			
worse than before	0%	0	
no improvement	13%	8	
some improvement	37%	23.5	
significant improvement	41%	26	
not sure	9%	6	63.5
4-21 Has AMS implementation resulted in acquisition cost improvements?			
worse than before	2%	1	
no improvement	13%	8	
some improvement	37%	23.5	
significant improvement	21%	13.5	
not sure	28%	18	64

AMS Independent Assessment FAA Survey Results Summary

Survey Questions	Survey Results	Responses	Total
4-22 Has AMS implementation resulted in internal acquisition processing time improvements?			
No	19%	12	
Yes	69%	43	
Not Sure	11%	7	62
4-23 Has AMS implementation resulted in external acquisition processing time improvements?			
No	8%	5	
Yes	69%	43	
Not Sure	23%	14	62
4-24 Has AMS implementation improved the procurement process in the context of adding people/organizations to the acquisition teams that have the right skills/knowledge to enhance the acquisition process?			
worse than before	2%	1	
no improvement	49%	32.5	
some improvement	35%	23	
significant improvement	7%	4.5	
not sure	8%	5	66
4-25 Are the current acquisition teams (e.g., IPTs, JRC, etc.) staffed with people who are knowledgeable of AMS processes and procedures			
None Knowledgeable	0%	0	
Some Knowledgeable	90%	57.5	
All Knowledgeable	10%	6.5	64
4-26 Does the AMS address the needs of the people involved in all lifecycle phase acquisitions, including operations and maintenance personnel?			
Does not address needs	5%	3	
addresses some needs	52%	32.5	
addresses all needs	14%	8.5	
not sure	29%	18	62
4-27 Is information concerning the implementation and use of AMS available to all FAA employees?			
no	3%	2	
some employees	6%	4	
most employees	17%	11	
all employees	68%	44	
not sure	6%	4	65
4-28 Do people involved in the procurement process have access to required AMS-related information to perform their tasks?			
No	3%	2	
Yes	91%	61	
Not Sure	6%	4	67

AMS Independent Assessment FAA Survey Results Summary

Survey Questions	Survey Results	Responses	Total
4-29 Are personnel systems and career development programs in place to support the implementation of AMS?			
No	53%	18	
Yes	9%	3	
Not Sure	38%	13	34
4-30 Are program budgeting and funding mechanisms structured to support implementation of AMS and integrated product teams?			
Doesn't Support	27%	8.5	
Some Hindrance	16%	5	
Supports to Some Extent	36%	11.5	
Fully Supports	3%	1	
Not Sure	19%	6	32
4-31 Was AMS training available during the transition to the new system?			
No	29%	11	
Yes	66%	25	
Not Sure	5%	2	38
4-32 If training was available, was it adequate and useful			
No	41%	13.5	
Yes	41%	13.5	
Not Sure	18%	6	33
5-1 Do you feel you have a good understanding of mission analysis as it relates to the acquisition process?			
No	17%	5	
Yes	70%	21	
Not Sure	13%	4	30
5-2 Do you feel that mission analysis processes are well defined?			
No	41%	12	
Yes	45%	13	
Not Sure	14%	4	29
5-3 Does AMS implementation link FAA's future vision into mission analysis development			
No	25%	7	
Yes	43%	12	
Not Sure	32%	9	28
5-4 Does AMS allow the FAA to consider advanced operational concepts for mission needs solutions?			
No	0%	0	
Yes	79%	22	
Not Sure	21%	6	28

AMS Independent Assessment FAA Survey Results Summary

Survey Questions	Survey Results	Responses	Total
5-5 Does AMS allow the FAA to acquire advanced technologies that are not considered COTS/NDI?			
No	4%	1	
Yes	93%	26	
Not Sure	4%	1	28
5-6 Does AMS stress preference for COTS/NDI solutions to satisfy mission needs?			
No	4%	1	
Yes	81%	22	
Not Sure	15%	4	27
5-7 Do high level priorities exist within the FAA for acquiring new technologies?			
No	4%	1	
Yes	64%	18	
Not Sure	32%	9	28
5-8 If priorities exist, are they communicated to people developing mission analyses?			
No	15%	4	
Yes	42%	11	
Not Sure	42%	11	26
5-9 Do you use contract support for mission analysis development?			
No	18%	4	
Yes	64%	14	
Not Sure	18%	4	22
5-10 Are your roles/responsibilities regarding mission analysis formally defined?			
No	36%	9	
Yes	32%	8	
Not Sure	32%	8	25
5-11 Were you involved in developing mission analysis roles and responsibilities?			
No	83%	22	
Yes	17%	4.5	
Not Sure	0%	0	26.5
5-12 Are mission analysis roles/responsibilities appropriate/relevant?			
No	17%	4	
Yes	58%	14	
Not Sure	25%	6	24
5-13 Should mission analysis roles and responsibilities be changed ?			
No	13%	3	
Yes	46%	11	
Not Sure	42%	10	24

AMS Independent Assessment FAA Survey Results Summary

Survey Questions	Survey Results	Responses	Total
5-16 Are all necessary internal stakeholders involved in mission analysis development?			
No	17%	4	
Yes	57%	13	
Not Sure	26%	6	23
5-17 While developing mission analyses, are interactions among internal stakeholders effective?			
No	20%	4	
Yes	55%	11	
Not Sure	25%	5	20
5-18 Are all external stakeholders (non FAA) involved in mission analysis development?			
No	32%	7	
Yes	36%	8	
Not Sure	32%	7	22
5-19 While developing mission analyses, are interactions with external stakeholders effective?			
No	29%	6	
Yes	29%	6	
Not Sure	43%	9	21
5-22 Do people involved in the mission needs process have access to information concerning advanced operational concepts or advanced technologies that are readily available?			
No	5%	1	
Yes	57%	12	
Not Sure	38%	8	21
5-23 Is all information required to conduct mission analysis available to you?			
No	32%	6	
Yes	42%	8	
Not Sure	26%	5	19
5-24 How is this information available?			
hardcopy	36%	9	
electronic	36%	9	
verbal	28%	7	25
5-26 When developing mission analyses, what is the most dominant form of interaction with you internal customers?			
informal meetings	30%	6	
formal meetings	20%	4	
e-mail	35%	7	
phone/fax	15%	3	20

AMS Independent Assessment FAA Survey Results Summary

Survey Questions	Survey Results	Responses	Total
5-27 When developing mission analyses, what is the most productive form of interaction with you internal customers?			
informal meetings	47%	8	
formal meetings	41%	7	
e-mail	6%	1	
phone/fax	6%	1	17
5-30 When developing mission analyses, what is the dominant form of interaction with your external customers			
informal meetings	20%	2	
formal meetings	50%	5	
e-mail	0%	0	
phone/fax	30%	3	10
5-32 Are participants proficient in the mission analysis process?			
No	18%	3	
Yes	35%	6	
Not Sure	47%	8	17
5-33 During the mission analysis process, is there sufficient understanding about functional needs versus solution based needs			
No	26%	5	
Yes	26%	5	
Not Sure	47%	9	19
5-37 Are there specific measures against which mission analysis is assessed			
No	31%	5	
Yes	13%	2	
Not Sure	56%	9	16
5-38 How often do assessments occur during mission analysis development?			
None	0%	0	
After development	0%	0	
once or more	33%	4	
don't know	67%	8	12
5-40 Are there specific measures against which you and your staff are assessed with respect to mission analysis			
No	73%	11	
Yes	20%	3	
Not Sure	7%	1	15
5-41 How often do these assessments occur during mission analysis development?			
None	10%	1	
After development	0%	0	
once or more	20%	2	
don't know	80%	8	10

AMS Independent Assessment FAA Survey Results Summary

Survey Questions	Survey Results	Responses	Total
5-43 Did you received adequate training to perform mission analysis			
No	73%	11	
Yes	7%	1	
Not Sure	20%	3	15
5-44 Is training available regarding mission analysis development			
No	28%	5	
Yes	50%	9	
Not Sure	22%	4	18
5-45 If training is available regarding mission analysis development, is the training useful			
No	15%	2	
Yes	38%	5	
Not Sure	46%	6	13
5-46 Are you support by any HW or SW tools to conduct mission analysis			
No	29%	4	
Yes	43%	6	
Not Sure	29%	4	14
5-48 What other additional resources are required to support mission analysis?			
none	6%	1	
more internal psnl	35%	6	
more external psnl	24%	4	
more contractor spt	6%	1	
more automation	12%	2	
other	18%	3	17
5-49 Do you believe that mission analysis, as implemented under AMS, is effective in cutting program costs?			
No	24%	4	
Yes	35%	6	
Not Sure	41%	7	17
5-50 Do you believe that mission analysis, as implemented under AMS, is effective in cutting procurement time?			
No	28%	5	
Yes	44%	8	
Not Sure	28%	5	18
6-1 Does AMS implementation provide the framework for a comprehensive analysis of all realistic alternatives to meet the mission needs?			
No	6%	1.5	
Yes	87%	23.5	
Not Sure	7%	2	27

AMS Independent Assessment FAA Survey Results Summary

Survey Questions	Survey Results	Responses	Total
6-2 Does AMS implementation provide the framework for selection of the best-value mission needs solution based on quantitative data?			
No	4%	1	
Yes	79%	22	
Not Sure	18%	5	28
6-3 Does the AMS link high-level FAA strategic priorities with the establishment of priorities during the investment analysis phase?			
No	21%	6	
Yes	52%	15	
Not Sure	28%	8	29
6-4 Are investment decisions primarily chosen based on best-value criteria or budgetary criteria?			
Best Value Consideration	33%	9.3	
Budgetary Consideration	55%	15.3	
Don't Know	12%	3.3	27.9
6-5 Does AMS provide for adequate acquisition program baselines (APBs)?			
No	19%	5.5	
Yes	67%	19.5	
Not Sure	14%	4	29
6-6 Does AMS allow for the analysis of a reasonable number of candidate solutions to make an objective decision?			
No	7%	2	
Yes	89%	24	
Not Sure	4%	1	27
6-7 Does the JRC consider the entire lifecycle cost when determining implementation priorities?			
No	17%	4.5	
Yes	69%	18.5	
Not Sure	15%	4	27
6-8 Has AMS reduced the number of required program planning documents to conduct an investment analysis?			
No	23%	6	
Yes	58%	15	
Not Sure	19%	5	26
6-9 If there has been a reduction in the number of planning documents, has there been a reduction in the work required to conduct an investment analysis?			
No	55%	12	
Yes	23%	5	
Not Sure	23%	5	22

AMS Independent Assessment FAA Survey Results Summary

Survey Questions	Survey Results	Responses	Total
6-10 Has AMS implementation resulted in cost savings associated with investment analysis performance?			
No	23%	6	
Yes	42%	11	
Not Sure	35%	9	26
6-11 Has AMS implementation resulted in time savings associated with investment analysis performance?			
No	32%	8	
Yes	32%	8	
Not Sure	36%	9	25
6-13 Do you feel that you have a good understanding of investment analysis as it relates to the acquisition lifecycle?			
No	0%	0	
Yes	100%	23	
Not Sure	0%	0	23
6-14 Do you feel that investment analysis processes are well defined?			
No	25%	6	
Yes	63%	15	
Not Sure	13%	3	24
6-15 Does AMS implementation link FAA's future vision into investment analysis development?			
No	13%	3	
Yes	54%	13	
Not Sure	33%	8	24
6-16 Does AMS allow the FAA to consider advanced operational concepts for mission needs solutions (e.g., free flight, ADS, etc.)?			
No	4%	1	
Yes	92%	23	
Not Sure	4%	1	25
6-17 Does AMS allow the FAA to acquire advanced technologies that are not considered COTS/NDI?			
No	0%	0	
Yes	100%	25	
Not Sure	0%	0	25
6-18 Does AMS stress preference for COTS/NDI solutions to satisfy mission needs?			
No	10%	2.5	
Yes	86%	21.5	
Not Sure	4%	1	25
6-19 Do people involved in the investment analysis process have access to information concerning advanced operational concepts or advanced technologies that are readily available?			
No	9%	2	
Yes	70%	16	
Not Sure	22%	5	23

AMS Independent Assessment FAA Survey Results Summary

Survey Questions	Survey Results	Responses	Total
6-20 Do high level priorities exist within FAA for acquiring technologies?			
No	4%	1	
Yes	65%	15	
Not Sure	30%	7	23
6-21 If priorities exist, are they communicated to people who are developing the investment analysis?			
No	24%	5	
Yes	52%	11	
Not Sure	24%	5	21
6-23 Do you use contractor support for investment analysis development?			
No	17%	4	
Yes	78%	18	
Not Sure	4%	1	23
6-24 Are your roles/responsibilities regarding investment analysis formally defined?			
No	41%	11	
Yes	44%	12	
Not Sure	15%	4	27
6-26 Were you involved in developing investment analysis roles and responsibilities?			
No	73%	16	
Yes	27%	6	
Not Sure	0%	0	22
6-27 Are investment analysis roles and responsibilities appropriate/relevant?			
No	13%	3	
Yes	61%	14	
Not Sure	26%	6	23
6-28 Should investment analysis roles and responsibilities be changed?			
No	32%	7	
Yes	50%	11	
Not Sure	18%	4	22
6-30 Are all necessary internal stakeholders involved in investment analysis development?			
No	19%	5	
Yes	58%	15	
Not Sure	23%	6	26
6-31 While developing investment analyses, are interactions among internal stakeholders (FAA) effective?			
No	24%	5.5	
Yes	50%	11.55	
Not Sure	26%	6	23.05

AMS Independent Assessment FAA Survey Results Summary

Survey Questions	Survey Results	Responses	Total
6-32 Are all necessary external stakeholders (non FAA) involved in the investment analysis development?			
No	62%	16	
Yes	12%	3	
Not Sure	27%	7	26
6-33 While developing investment analyses, are interactions with external stakeholders effective?			
No	50%	11	
Yes	18%	4	
Not Sure	32%	7	22
6-36 Is all information required to conduct investment analysis available to you?			
No	50%	12	
Yes	46%	11	
Not Sure	4%	1	24
6-37 How is this information available?			
hardcopy	38%	21	
electronic	35%	19	
verbal	27%	15	55
6-39 When developing investment analyses, what is the dominant form of interaction with your internal customers?			
informal meetings	31%	10	
formal meetings	31%	10	
e-mail	28%	9	
phone/fax	9%	3	32
6-40 When developing investment analyses, what is the productive form of interaction with your internal customers?			
informal meetings	60%	15	
formal meetings	24%	6	
e-mail	12%	3	
phone/fax	4%	1	25
6-43 When developing investment analyses, what is the dominant form of interaction with your external customers?			
informal meetings	30%	3	
formal meetings	40%	4	
e-mail	0%	0	
phone/fax	30%	3	10
6-45 What level of control do you or others on your team have over the workload drivers?			
no control	44%	7	
some control	56%	9	
total control	0%	0	16

AMS Independent Assessment FAA Survey Results Summary

Survey Questions	Survey Results	Responses	Total
6-49 Are there specific measures against which investment analysis is assessed?			
No	30%	6	
Yes	30%	6	
Not Sure	40%	8	20
6-50 How often do assessments occur during investment analysis development?			
none	15%	2	
after development	8%	1	
once or more	23%	3	
don't know	54%	7	13
6-53 Are there specific measures against which you or your staff are assessed with respect to investment analysis development?			
No	36%	5	
Yes	43%	6	
Not Sure	21%	3	14
6-54 How often do these assessments occur during investment analysis development?			
none	17%	2	
after development	0%	0	
once or more	42%	5	
don't know	42%	5	12
6-56 Did you receive adequate training to perform investment analysis?			
No	52%	11	
Yes	43%	9	
Not Sure	5%	1	21
6-57 Is training available regarding investment analysis development?			
No	14%	3	
Yes	55%	12	
Not Sure	32%	7	22
6-58 If training is available regarding investment analysis development, is the training useful?			
No	6%	1	
Yes	63%	10	
Not Sure	31%	5	16
6-59 Are you supported by any hardware or software tools to conduct investment analysis?			
No	10%	2	
Yes	81%	17	
Not Sure	10%	2	21

AMS Independent Assessment FAA Survey Results Summary

Survey Questions	Survey Results	Responses	Total
6-61 What other additional resources are required to support investment analysis?			
none	6%	2	
more internal psnl	26%	9	
more external psnl	17%	6	
more contractor spt	14%	5	
more automation	17%	6	
other	20%	7	35
6-62 Do you believe that investment analysis, as implemented under AMS, is effective in cutting costs?			
No	14%	3	
Yes	67%	14	
Not Sure	19%	4	21
6-63 Do you believe that investment analysis, as implemented under AMS, is effective in cutting procurement time?			
No	9%	2	
Yes	68%	15	
Not Sure	23%	5	22
7-1 Does AMS promote full and open competition as the preferred method of source selection?			
No	13%	7	
Yes	85%	45	
Not Sure	2%	1	53
7-2 Does AMS promote full and open competition for procurements of \$50 million or greater as the preferred method of source selection?			
No	10%	4	
Yes	74%	31	
Not Sure	17%	7	42
7-3 Does AMS promote full and open competition for procurements of less than \$50 million as the preferred method of source selection?			
No	14%	7	
Yes	67%	34	
Not Sure	20%	10	51
7-4 Has AMS implementation provided small business attainable and reasonable opportunities to participate as prime contractors and as subcontractors?			
No	14%	7.5	
Yes	80%	42.5	
Not Sure	6%	3	53
7-5 Have lists of qualified vendors for products and services, based on their capabilities and past performance been compiled?			
No	36%	19	
Yes	45%	24	
Not Sure	19%	10	53

AMS Independent Assessment FAA Survey Results Summary

Survey Questions	Survey Results	Responses	Total
7-6 In promoting full and open competition, does AMS allow for downselecting to offerors based on capability and past performance?			
No	6%	3	
Yes	90%	46	
Not Sure	4%	2	51
7-7 Has AMS implementation resulted in streamlining of the formal solicitation process?			
No	6%	3	
Yes	90%	46	
Not Sure	4%	2	51
7-8 Does AMS support dispute resolution efficiently and fairly for all parties?			
No	9%	4	
Yes	49%	23	
Not Sure	43%	20	47
7-9 Has AMS implementation improved the approval process for processing baseline changes?			
worse than before	0%	0	
no improvement	24%	10	
some improvement	33%	14	
significant improvement	5%	2	
not sure	38%	16	42
7-10 Has AMS improved the decision making process for processing design changes?			
worse than before	2%	1	
no improvement	25%	11	
some improvement	41%	18	
significant improvement	5%	2	
not sure	27%	12	44
7-11 Has AMS improved the decision making process for source selection and contracting?			
worse than before	0%	0	
no improvement	8%	4	
some improvement	45%	22	
significant improvement	41%	20	
not sure	6%	3	49
7-12 Has AMS improved the decision making process for production decisions?			
worse than before	2%	1	
no improvement	10%	4	
some improvement	29%	12	
significant improvement	7%	3	
not sure	51%	21	41

AMS Independent Assessment FAA Survey Results Summary

Survey Questions	Survey Results	Responses	Total
7-13 Is the AMS process, as it applies to solution implementation, understood throughout the FAA?			
No	43%	21	
Yes	26%	12.5	
Not Sure	32%	15.5	49
7-14 Does AMS promote the selection of the contractor with the best value to satisfy FAA's mission?			
No	6%	3	
Yes	88%	45	
Not Sure	6%	3	51
7-15 Do acquisitions focus on key discriminators between vendors and their products or services to ensure that the "best-value" is procured?			
No	13%	6.5	
Yes	74%	38.5	
Not Sure	13%	7	52
7-16 Has the change from pre- to post-AMS increased or decreased the use of competition as a preferred acquisition method?			
no change	40%	20	
increased	16%	8	
decreased	20%	10	
don't know	24%	12	50
7-17 Under the AMS, is sole-source contracting permitted when necessary to fulfill FAA requirements?			
No	0%	0	
Yes	96%	50	
Not Sure	4%	2	52
7-18 Do IPTs, through their team contracting officer, have the authority to chose contract types to pursue the best-value solution to a particular procurement?			
No	2%	1	
Yes	89%	42	
Not Sure	9%	4	47
7-19 Is the use of credit cards and third party drafts, consistent with prudent business practices, authorized under AMS?			
No	2%	1	
Yes	86%	43	
Not Sure	12%	6	50

AMS Independent Assessment FAA Survey Results Summary

Survey Questions	Survey Results	Responses	Total
7-20 Has the process of resolving contract protests/disputes been improved due to AMS implementation?			
worse than before	8%	4	
no improvement	2%	1	
some improvement	23%	11	
significant improvement	17%	8	
not sure	50%	24	48
8-1 Has AMS improved the process to address removal of latent defects?			
worse than before	0%	0	
no improvement	55%	17	
some improvement	6%	2	
significant improvement	0%	0	
not sure	39%	12	31
8-2 Has AMS improved the process of managing planned product improvements?			
worse than before	0%	0	
no improvement	27%	9	
some improvement	45%	15	
significant improvement	3%	1	
not sure	24%	8	33
8-3 Has AMS improved the process of managing engineering changes required to fix systemic problems?			
worse than before	0%	0	
no improvement	26%	8	
some improvement	52%	16	
significant improvement	6%	2	
not sure	16%	5	31
8-4 Has AMS improved the processes for obtaining resources for supporting, upgrading, extending, decommissioning or replacing fielded systems?			
worse than before	0%	0	
no improvement	36%	10	
some improvement	29%	8	
significant improvement	11%	3	
not sure	25%	7	28
8-5 Has AMS improved processes for obtaining information related to new technological capabilities or enhance the performance or reduce the costs of fielded systems?			
worse than before	0%	0	
no improvement	21%	6	
some improvement	43%	12	
significant improvement	18%	5	
not sure	18%	5	28

AMS Independent Assessment FAA Survey Results Summary

Survey Questions	Survey Results	Responses	Total
8-9 Has AMS improved the planning process for in-service deployment?			
worse than before	0%	0	
no improvement	21%	6	
some improvement	29%	8.5	
significant improvement	16%	4.5	
not sure	34%	10	29
8-10 Has AMS improved the decision making process for in-service deployment?			
worse than before	0%	0	
no improvement	21%	6	
some improvement	29%	8	
significant improvement	18%	5	
not sure	32%	9	28
8-11 Has AMS improved the implementation process for in-service deployment?			
worse than before	0%	0	
no improvement	30%	8	
some improvement	33%	9	
significant improvement	7%	2	
not sure	30%	8	27
8-12 Has AMS improved the planning process for incorporation of improvements?			
worse than before	0%	0	
no improvement	21%	6	
some improvement	36%	10	
significant improvement	14%	4	
not sure	29%	8	28
8-13 Has AMS improved the decision making process for incorporation of improvements?			
worse than before	0%	0	
no improvement	24%	6.5	
some improvement	50%	13.5	
significant improvement	7%	2	
not sure	19%	5	27
8-14 Has AMS improved the implementation process for incorporation of improvements?			
worse than before	0%	0	
no improvement	21%	6	
some improvement	39%	11	
significant improvement	4%	1	
not sure	36%	10	28

AMS Independent Assessment FAA Survey Results Summary

Survey Questions	Survey Results	Responses	Total
8-15 Has AMS improved the process for sustainment planning and programming?			
worse than before	0%	0	
no improvement	31%	9	
some improvement	28%	8	
significant improvement	17%	5	
not sure	24%	7	29
8-16 Has AMS improved the process for quicker insertion of new technology?			
worse than before	0%	0	
no improvement	7%	2	
some improvement	50%	15	
significant improvement	20%	6	
not sure	23%	7	30
8-17 Has AMS improved the process for service life extension within approved baselines?			
worse than before	0%	0	
no improvement	15%	4	
some improvement	41%	11	
significant improvement	7%	2	
not sure	37%	10	27
8-18 Has FAA emphasis on the use of COTS/NDI items improved service support?			
worse than before	0%	0	
no improvement	21%	6	
some improvement	41%	12	
significant improvement	7%	2	
not sure	31%	9	29

Survey Questions	Survey Results
1-1 Has your company bid on any FAA contracts since the implementation of their new Acquisition Management System (AMS) in April of 1996?	
No	25%
Yes	75%
Not Sure	0%
1-2 Has your company been awarded any FAA contract under AMS?	
No	50%
Yes	50%
Not Sure	0%
1-3 Has the reduction in the requirement to follow previous mandatory acquisition policy (e.g., the FARs) improved FAA acquisition management?	
worse than before	0%
no improvement	25%
some improvement	25%
significant improvement	50%
not sure	0%
1-4 Does AMS implementation establish an adequate system of checks and balances to ensure public trust?	
No	0%
Yes	25%
Not Sure	75%
1-5 Does AMS policy encourage acquisition decisions based on commercial-off-the-shelf (COTS) or nondevelopmental item (NDI) solutions.	
No	0%
Yes	50%
Not Sure	50%
1-6 Does FAA management focus on procurement of COTS/NDI products?	
No	0%
Yes	50%
Not Sure	50%
1-7 Has AMS implementation resulted in acquisition time improvements?	
worse than before	0%
no improvement	0%
some improvement	50%
significant improvement	25%
not sure	25%
1-8 Has AMS implementation resulted in acquisition cost improvements?	
worse than before	0%
no improvement	0%
some improvement	25%
significant improvement	0%
not sure	75%
1-9 Has AMS implementation resulted in internal processing time improvements for industry?	
No	0%
Yes	100%
Not Sure	0%
1-10 Does AMS allow the FAA to consider advanced operational concepts for mission needs solutions?	
No	25%
Yes	25%
Not Sure	50%
1-11 Does AMS allow the FAA to acquire advanced technologies that are not considered COTS/NDI?	
No	25%
Yes	50%
Not Sure	25%
1-12 Are all external stakeholders (non FAA) involved in mission analysis development?	
No	25%
Yes	0%
Not Sure	75%

Survey Questions	Survey Results
1-13 While developing mission analyses, are interactions with external stakeholders effective?	
No	25%
Yes	0%
Not Sure	75%
1-14 When developing mission analyses, what is the dominant form of interaction with your external customers	
informal meetings	0%
formal meetings	100%
e-mail	0%
phone/fax	0%
1-15 When developing mission analyses, how can interactions with your external customers be improved?	
1-16 Do you believe that mission analysis, as implemented under AMS, is effective in cutting program costs?	
No	33%
Yes	33%
Not Sure	33%
1-17 Do you believe that mission analysis, as implemented under AMS, is effective in cutting procurement time?	
No	50%
Yes	0%
Not Sure	50%
1-18 Are all necessary external stakeholders involved in the investment analysis development?	
No	0%
Yes	0%
Not Sure	100%
1-20 While developing investment analyses, are interactions with external stakeholders effective?	
No	25%
Yes	0%
Not Sure	75%
1-21 When developing investment analyses, what is the dominant form of interaction with your external customers?	
informal meetings	0%
formal meetings	100%
e-mail	0%
phone/fax	0%
1-22 Do you believe that investment analysis, as implemented under AMS, is effective in cutting procurement time?	
No	25%
Yes	0%
Not Sure	75%
1-23 Does AMS promote full and open competition as the preferred method of source selection?	
No	25%
Yes	50%
Not Sure	25%
1-24 Does AMS promote full and open competition for procurements of \$50 million or greater as the preferred method of source selection?	
No	25%
Yes	25%
Not Sure	50%
1-25 Does AMS promote full and open competition for procurements of less than \$50 million as the preferred method of source selection?	
No	25%
Yes	25%
Not Sure	50%
1-26 Has AMS implementation provided small business attainable and reasonable opportunities to participate as prime contractors and as subcontractors?	
No	0%
Yes	50%
Not Sure	50%
1-27 Have lists of qualified vendors for products and services, based on their capabilities and past performance been compiled?	
No	0%
Yes	25%
Not Sure	75%

Survey Questions	Survey Results
1-28 In promoting full and open competition, does AMS allow for downselecting to offerors based on capability and past performance?	
No	0%
Yes	50%
Not Sure	50%
1-29 Has AMS implementation resulted in streamlining of the formal solicitation process?	
No	25%
Yes	50%
Not Sure	25%
1-30 Does AMS support dispute resolution efficiently and fairly for all parties?	
No	25%
Yes	25%
Not Sure	50%
1-31 Has the change from pre- to post-AMS increased or decreased the use of competition as a preferred acquisition method?	
no change	0%
increased	0%
decreased	25%
don't know	75%
1-32 Under the AMS, is sole-source contracting permitted when necessary to fulfill FAA requirements?	
No	0%
Yes	75%
Not Sure	25%
1-33 Has AMS improved procurement fairness to industry	
No	50%
Yes	25%
Not Sure	25%
1-34 Does AMS implementation have detrimental affects on the use of small business and socially and economically disadvantaged business?	
No	25%
Yes	25%
Not Sure	50%
1-35 Has the process of resolving contract protests/disputes been improved due to AMS implementation?	
worse than before	0%
no improvement	25%
some improvement	0%
significant improvement	0%
not sure	75%

APPENDIX C

ACRONYMS

Acronyms

ABZ	Office of Business Management
AMS	Acquisition Management System
ARA	Office of Research and Acquisitions
ARR	Office of Requirements Development
ASD	Office of System Architecture and Investment Analysis
ASP	Acquisition Strategy Paper
ATCBI	Air Traffic Control Beacon Interrogator
ATS	Office of Air Traffic Services
AUA	Office of Air Traffic Systems Development
BAFO	Best and Final Offer
CBD	Commerce Business Daily
CDRL	Contract Data Review List
CIS	Contracting Information System
CLIN	Contract Line Item Number
COTS	Commercial off-the-shelf
DCAA	Defense Contract Audit Agency
FAA	Federal Aviation Administration
FAR	Federal Acquisition Regulations
FAST	FAA Acquisition System Toolset
ICIP	Intellectual Capital Investment Plan
IPDS	Integrated Product Development System
IPT	Integrated Product Team
JRC	Joint Resources Council
NDI	Nondevelopmental Item
ODR	Office of Dispute Resolution
PR	Procurement Request
QVL	Qualified Vendors List
SEDB	Small Economically Disadvantaged Business
SEOAT	Systems Engineering Operational Analysis Team
SIR	Solicitation Information Request
SOW	Statement of Work
SSA	Source Selection Authority
STARS	Standard Terminal Automation Replacement System
WAAS	Wide Area Augmentation System
WBS	Work Breakdown Structure