# AMS CHANGE REQUEST (CR) COVERSHEET

Change Request Number: 15-11

**Date Received:** 6/26/15 **Title:** Update AMS T&E Policy

**Initiator Name:** John Frederick

Initiator Organization Name / Routing Code: Verification & Validation Strategies and

Practices Branch (ANG-E5A) **Initiator Phone:** 609-485-5259

**ASAG Member Name:** Irene Langweil **ASAG Member Phone:** 202.267.3338

Guidance and Policy must be submitted with separate CR coversheets.

Policy

Or

- Procurement Guidance
- Real Estate Guidance
- Other Guidance

**Summary of Change:** This policy change establishes the Test and Evaluation Master Plan (TEMP) as a required AMS document. It integrates the TEMP into the investment analysis and solution implementation AMS lifecycle phases.

**Reason for Change:** These changes are driven by the need to establish the Test and Evaluation Master Plan (TEMP) as a required AMS document. To implement the practices in the V&V Guidelines Document, a TEMP should be required in policy to establish and manage the program's baseline test strategy. A required TEMP is a best practice in government/industry and is critical to a well managed acquisition.

**Development, Review, and Concurrence:** Verification & Validation Strategies and Practices Branch (ANG-E5A) and Independent Safety Assessment Team (AJI-321) review.

**Target Audience:** Test Teams, Service Organizations

**Briefing Planned:** Yes.

**ASAG Responsibilities:** Review and comment.

### Section / Text Location:

- Section 1.2.15 Lifecycle Acquisition Management Table 1.2.15-1
- Section 2.5.1 Investment Analysis What Must Be Done
- Section 2.5.3 Who Does It?

- Section 4.4.1 Test and Evaluation Service Analysis, Concept and Requirements Definition, and Investment Analysis
- Section 4.4.2 Test and Evaluation Solution Implementation
- Appendix C. Definitions
- Appendix D. Acronyms

[updated guidance docs linked in 1.2.15]
AMS Table of Acquisition Categories
Storage Location of Investment-Related Program Documentation

# The redline version must be a comparison with the current published FAST version.

I confirm I used the latest published version to create this change / redline

or

This is new content

Links: None

**Attachments:** Redline and final versions

Other Files: None

Redline(s):

# Section Revised: - AMS Policy 1.2.15 - Lifecycle Acquisition Management - Table 1.2.15-

**Acquisition Management Policy - (1/20157/2015)** 

1.2 Key Elements of Acquisition Management

1.2.1 Strategic Planning, Management, and Budgeting Revised 1/2014

1.2.2 FAA Enterprise Architecture Revised 1/2015

1.2.3 Service Management Revised 7/2013

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1.2.4.1 Agency-Wide Portfolio Management Revised 4/2013

1.2.4.1.1 Portfolio Management Governance Revised 4/2013

1.2.4.1.2 Portfolio Management Criteria Revised 4/2013

1.2.4.2 Operational Capability Portfolios Revised 4/2013

1.2.5 Acquisition Categories Revised 4/2013

1.2.6 Lifecycle Management Decision-Making Revised 7/2013

1.2.7 Acquisition Quarterly Program Reviews Revised 4/2013

1.2.8 TechStat Reviews Revised 4/2013

1.2.9 Cost Accounting Revised 4/2013

1.2.10 Workforce Development and Qualification Revised 4/2013

1.2.11 Continuous Improvement Revised 7/2010

1.2.12 On-line Policy and Guidance Revised 1/2012

1.2.13 AMS Change Management Revised 1/2012

- 1.2.14 Legal Coordination Revised 7/2006
- 1.2.15 AMS Lifecycle Management Documentation Revised 1/20157/2015
- 1.2.16 OMB Budget Documentation Revised 1/2015
- 1.2.17 National Acquisition Evaluation Program Added 7/2007
- 1.2.18 Earned Value and Baseline Management Added 7/2013

## 1.2 Key Elements of Acquisition Management

### 1.2.1 Strategic Planning, Management, and Budgeting Revised 1/2014

The Government Performance and Results Act of 1993, requires Federal agencies to have measurable performance targets tied to agency goals and objectives. These targets serve as the basis for planning capital investments and measuring progress.

The FAA supports this requirement through a strategic management process that forecasts the future aviation environment and captures goals, objectives, and performance targets in its strategic plan, currently Destination 2025. FAA strategic planning links the long-range vision and goals for the agency directly to the service needs of customers and defines top-level performance measures and multi-year performance targets.

The NAS Concept of Operations specifies the operational capabilities that the National Airspace System will have over time. Together, the FAA strategic plan and NAS Concept of Operations set the primary context for the FAA Enterprise Architecture and all lower-level plans and budgets within the agency. FAA lines of business and staff offices align their planning to the goals and objectives in FAA strategic planning. Service organizations within the lines of business in turn align their business and operating plans to line-of-business planning. These relationships are illustrated in Figure 1.2.1-1 FAA Strategic Planning, Management, and Budgeting.

Figure 1.2.1-1 Strategic Planning, Management, and Budgeting



Service organizations develop integrated business plans and budgets across all appropriations to achieve full lifecycle support of service delivery. Planning is realistic within budgetary constraints. Success or failure in achieving performance goals influences future planning and budgeting decisions. Resources are dedicated to key activities such as service analysis, concept and requirements definition, and investment analysis.

The Administrator approves the FAA strategic plan; the NextGen Management Board approves the NAS Concept of Operations; the Joint Resources Council approves the FAA Enterprise Architecture.

The Chief Financial Officer formulates the budget across lines of business and staff offices; tracks actual performance against planned execution based on input from these organizations; records approved resource adjustments to FAA plans and budgets; and incrementally moves FAA planning and budgeting forward each year. The Chief Financial Officer also develops the Facilities and Equipment (F&E), Research, Engineering, and Development (RE&D), and Operations (OPS) budget requests.

Planning for the Airport Improvement Program is coordinated with planning for the RE&D, F&E, and OPS appropriations so that capital assets necessary to support new and expanded airport operations are available when needed.

The FAA reports facility and equipment expenditures to Congress in the Capital Investment Plan; research, engineering, and development resource requirements in the National Aviation Research Plan; and operations funding requirements in the annual budget request to Congress.

## 1.2.2 FAA Enterprise Architecture Revised 1/2015

The FAA Enterprise Architecture (referred to as the enterprise architecture throughout AMS policy) defines the operational and technical framework for all capital assets of the FAA. It describes the agency's current and target architectures, as well as the transition strategy for moving from the current to the target architecture. The enterprise architecture is approved annually by the Joint Resources Council in support of FAA budget and strategic management processes.

The enterprise architecture has two components: the National Airspace System (NAS) architecture and the non-NAS architecture (See Figure 1.2.2-1 FAA Enterprise Architecture). The NAS architecture is comprised of the systems, people, and procedures necessary for command and control of the National Airspace System. It also includes mission-support systems that manage or design command and control components and air traffic procedures. The non-NAS architecture is comprised of the information technology operations and investments needed for agency business administration and planning. It includes all mission-support applications, systems, policies, and procedures not directly involved in air traffic control.

NAS
Architecture

Non-NAS
Architecture

Figure 1.2.2-1 FAA Enterprise Architecture

The FAA Enterprise Architecture Board governs the enterprise architecture. The Chief Information Officer maintains it. The Enterprise Architecture Service Division administers the NAS architecture. The Office of Information & Technology, Strategy & Performance Service, EA Division administers the non-NAS architecture.

### 1.2.3 Service Management Revised 7/2013

Acquisition management policy is structured to apply FAA investment resources to the cost- effective delivery of safe and secure services to its customers. The delivery of these services is accomplished through service organizations, which are responsible and accountable for lifecycle management of service delivery.

A service organization is any organization that manages investment resources, regardless of appropriation, to deliver services. It may be a service unit, program office, or directorate, and may be engaged in air traffic services, safety, security, regulation, certification, operations, commercial space transportation, airport development, or administrative functions.

Service organizations bring together the stakeholders and specialists necessary to plan, obtain, manage, and sustain assigned services throughout their lifecycle. A service may be delivered directly to a customer, such as flight planning for general aviation, or to other service organizations that deliver end services to customers. Together, service organizations span the spectrum of FAA activity and responsibility.

Service organizations manage service delivery by means of integrated portfolios of capital investments and operational assets. These portfolios includes investment assets under acquisition; fielded equipment, legacy systems, infrastructure, and facilities; and all other types of resources.

Service organizations perform service analysis annually to determine what capabilities must be in place now and in the future to meet agency goals and the service needs of customers and to move planning forward each year. Results are captured in enterprise architecture roadmaps, which are the transition plans for moving the current "as is" architecture to the future "to be" state. These roadmaps are the foundation for line-of-business and staff office business plans, which in turn are the basis for service organization operating plans.

The operating plan of each service organization specifies how it will manage its operational assets and investment initiatives over time to sustain and improve service delivery. Each operating plan is maintained on a continuing basis and updated yearly to reflect progress against plan, Congressional or executive direction, emerging customer needs, and critical aviation incidents. Service organizations track performance, accomplishments, and resource expenditures relative to the operating plan, and take corrective action as necessary to achieve agreed upon goals and objectives. Service organizations work closely with each other to manage shared assets efficiently and effectively.

### 1.2.4 Portfolio Management Revised 4/2013

The FAA views and manages its investment and operational assets through multiple levels and groupings of portfolios to ensure they work together efficiently to achieve agency strategic, mission, and service goals. At the agency level, the entire FAA budget is a portfolio of planned expenditures organized to balance support of existing operational services with investment in new capability. Within this portfolio, the R&ED, F&E, and Operations appropriations are distinct portfolios that

allocate research, investment, and operational funding to the most pressing service needs of the aviation community. Similarly, the enterprise architecture is a portfolio with investments and assets that make up the National Airspace System (NAS) and administrative and mission support information technology (non-NAS). The enterprise architecture can be viewed as distinct portfolios segmented in different ways for specific purposes.

Operational capability portfolios are rational groupings of NAS investment programs proceeding through the AMS lifecycle management process that have critical interdependences which must be taken into account when making investment decisions for individual components of the portfolio.

The Joint Resources Council uses portfolio management in conjunction with strategic planning, the enterprise architecture, and outcome-based performance measures when making investment decisions and managing selected groupings of investments.

AMS policy does not create a universal definition for the term "portfolio management." It establishes the definition and policy for several standard agency-wide portfolios (Section 1.2.4.1) and for operational capability portfolios (Section 1.2.4.2). This policy does not preclude other types of portfolios within the agency, nor does it provide policy or guidance for managing them. Figure 1.2.4-1 illustrates the levels and groupings of FAA portfolios.

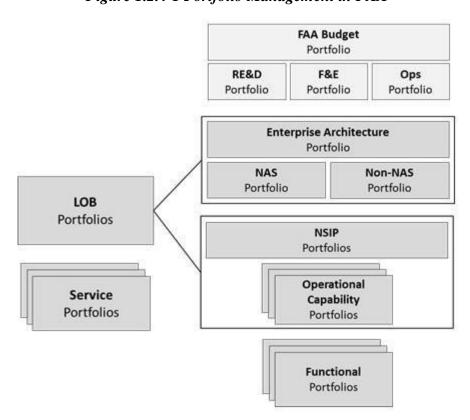


Figure 1.2.4-1 Portfolio Management in FAA

### 1.2.4.1 Agency-Wide Portfolio Management Revised 4/2013

The FAA implements agency-wide portfolio management at multiple organizational levels and within a unified functional framework:

**Corporate Portfolio Management -** The FAA, through the Joint Resources Council and other means, manages the overall agency investment portfolio with the following:

**Enterprise Architecture:** The enterprise architecture portrays the "as is" and "to be" state of FAA operational assets along with roadmaps that lay out over time what investments will be made to achieve the end-state configuration. The enterprise architecture is developed and updated annually by analyzing the functions the FAA needs to provide based on identified gaps in needed services over time. This view of the corporate-level portfolio is presented to the Joint Resources Council each year for approval.

**FAA Budget:** The budget is developed using a strategic management process that ties it to the needs in the enterprise architecture and the goals in the FAA strategic plan to create a unified performance-based budget. The budget is reviewed each year considering several corporate-level portfolio measures including progress in meeting FAA strategic goals, budget allocations relative to strategic planning targets, and assessments of under-performing programs using earned value management. This information is presented to the Joint Resources Council annually when it reviews the agency budget submission.

**Line-of-Business Portfolio Management -** Each line of business and staff office oversees, coordinates, and integrates the service portfolios of its service organizations to achieve the greatest overall contribution to agency strategic goals and targets.

**Service Portfolio Management -** Service organizations (e.g., terminal services, en-route and oceanic services, regulatory services, certification services) manage integrated sets of investment and operational assets to optimize service delivery over time.

**NAS Segment Implementation Portfolio Management -** The NextGen organization oversees investment portfolios that cut across service organizations to provide fully integrated operational capabilities for the National Airspace System in such areas as precision-based navigation and improved runway operations. More than one service organization may be involved with implementation and in-service management of these investment packages.

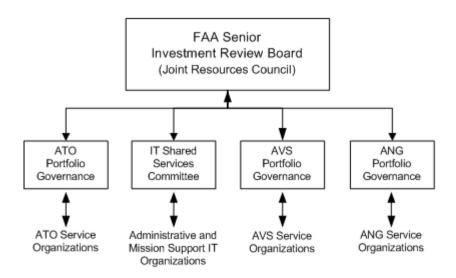
**Functional Portfolio Management -** The NextGen organization oversees investment packages that cut across service organizations to provide fully integrated functional capability for the National Airspace System in such areas as weather, surveillance, communications, automation, and navigation. More than one service organization may be involved with implementation and in-service management of these investment packages.

### 1.2.4.1.1 Portfolio Management Governance Revised 4/2013

Figure 1.2.4.1.1-1 portrays portfolio management governance within FAA.

Figure 1.2.4.1.1-1 FAA Portfolio Management Governance

(representative depiction)



The Joint Resources Council oversees the FAA investment portfolio as expressed in the enterprise architecture, FAA budget, and individual service portfolios. It evaluates the performance of all investment programs and operational assets within each service against quantified baseline measures. Planned initiatives for new investment are discussed along with proposals to remove, replace, or improve operational assets with declining performance that no longer satisfy service need or are nearing the end of their service life. The Joint Resources Council aligns and coordinates investment activity across the lines of business through annual review and approval of the enterprise architecture and agency budget submissions to Congress.

Line-of-Business portfolio governance aligns and coordinates investment activity across service organizations within a line of business or staff office. This governance ensures investment and operational resources support priority FAA strategic and performance goals; ensures there is no overlap, redundancy, or gap in service delivery; and reviews progress, tracks baseline variances, and monitors remedial planning and execution within service portfolios. Specifically, Air Traffic Organization (ATO) governance oversees, reviews, and coordinates service portfolios related to the National Airspace System and the provision of air traffic control services (e.g., terminal, en-route, and technical operations). NextGen (ANG) and Aviation Safety (AVS) governance oversee and recommend investment portfolios within their line of business.

The Information Technology Shared Services Committee reviews, oversees, and recommends administrative and mission support information technology investment portfolios.

Service organizations manage service delivery within their service area of responsibility. They evaluate service demand on a continuing basis and recommend changes to the service portfolio over time to optimize service delivery.

### 1.2.4.1.2 Portfolio Management Criteria Revised 4/2013

The FAA has standard criteria for selecting, controlling, and evaluating its investment portfolio. The Joint Resources Council uses the standard criteria when evaluating new investment opportunities for inclusion in a service portfolio, when evaluating the status of on-going investment programs, and when evaluating the efficiency and effectiveness of operational assets.

The three categories of portfolio management criteria are listed below. Details for some elements of these criteria are defined elsewhere in AMS (e.g., earned value management policy is in Section 4.16 and the standard selection criteria are located in FAST).

**Selection criteria**: The Joint Resources Council applies the following standard quantitative and judgmental selection criteria to assess the relative contribution of investment options for inclusion in an investment portfolio: benefits; lifecycle cost; benefit to cost ratio; consistency with the enterprise architecture; impact on FAA strategic goals; and risk.

Control criteria: The FAA employs earned value management, risk management, and testing to determine how efficiently developmental, modernization, and enhancement investment programs are performing relative to plan during solution implementation. For investment programs that do not involve development, modernization, or enhancement, the FAA applies multiple control techniques such as independent review of program cost and schedule estimates; comparison of spend plans against budget authorization; comparison of actual cost and schedule results against planning estimates; and periodic program and data reviews against planning. These management controls identify and quantify variances to baseline cost, schedule, and performance measures as the basis for corrective action. Service organizations test and evaluate the products of investment programs against requirements in the program requirements document to determine whether they are satisfied.

**Evaluation criteria**: The FAA periodically measures the efficiency (technical quality) and effectiveness (business value) of operational assets to determine whether they should be upgraded, replaced, or removed from service. Service directorates evaluate in-service assets by means of post-implementation reviews and operational analyses. Post-implementation reviews determine whether performance, cost, schedule, and benefit goals are being attained. They provide the basis for corrective action, as well as lessons learned for improving agency investment management processes. Operational analysis determines trends in such factors as reliability, maintainability, supportability, obsolescence, and operating and maintenance costs. They are the basis for validating continued support for fielded assets or some other action such as upgrade, replacement, or removal from service.

## 1.2.4.2 Operational Capability Portfolios Revised 4/2013

The NextGen Management Board establishes operational capability portfolios to achieve priority NAS performance and operational goals subject to concurrence by the Joint Resources Council. When an individual investment increment of the portfolio comes before the Joint Resources Council for investment decisions, the portfolio manager is present so decisions are made within context of the entire portfolio and overall corporate framework.

An operational capability portfolio may contain materiel (e.g., hardware or software deliverables) and non-materiel (e.g., airspace redesign or procedures) components. Each investment increment must receive an acquisition category designation from the Acquisition Executive Board and is managed through the AMS lifecycle according to its designation.

An operational capability integration plan (OCIP) approved by the executives responsible for each investment increment of an operational capability portfolio defines the critical interdependencies between investment increments, how they will be managed, and their interaction with each other and the overall portfolio. The OCIP specifies how cost, schedule, or performance issues will be communicated to other portfolio investment increments and how they will be resolved corporately for the benefit of the portfolio. A standard template is used to develop the OCIP, which includes measures for tracking and evaluating the portfolio (e.g., portfolio costs and benefits).

### 1.2.5 Acquisition Categories Revised 4/2013

Acquisition categories ensure the appropriate level of oversight and documentation requirements are applied to each FAA investment program. Acquisition categories apply to all investment programs, appropriations, and FAA organizations. This includes all capital investments in the National Airspace System and FAA administrative and mission support systems and services. The Joint Resources Council is the investment decision authority for all acquisition categories.

Investment programs are classified by investment type (new investment, technology refreshment, variable quantity, facility initiative, or support service contract) and then categorized based on qualitative and quantitative criteria. Definitions for investment type and criteria for acquisition categories are in the <a href="Mailto:AMS Table of Acquisition Categories">AMS Table of Acquisition Categories</a>. Review organizations for investment decisions and tailoring for required documentation vary by investment type and acquisition category, as defined in the AMS Table of Acquisition Categories.

The sponsoring service organization recommends an acquisition category to the Acquisition Executive Board, which makes the categorization decision and notifies the Joint Resources Council for confirmation through the JRC Executive Secretariat. The designation of acquisition category is made before the investment analysis readiness decision. A standard readiness process applies to all acquisition category levels for AMS decision points.

## 1.2.6 Lifecycle Management Decision-Making Revised 7/2013

Table 1.2.6-1 specifies the decision authority for each AMS lifecycle management decision point. The Joint Resources Council is the FAA senior investment review board. It makes corporate-level resource

decisions, including authorization and funding for investment programs, and approves changes to the enterprise architecture. The Joint Resources Council selects for approval and funding those investment opportunities having the highest potential for contributing to FAA strategic and performance goals, improving service delivery, increasing aviation safety, lowering operating costs, or otherwise providing value to the FAA and its customers. The Joint Resources Council may approve, disapprove, modify, or terminate an investment initiative at any AMS decision point.

The Joint Resources Council approves investment resources, regardless of appropriation, in useful and manageable segments (e.g., development, demonstration, production, deployment, and operations). Each segment is managed within cost, schedule, and performance targets in the acquisition program baseline approved by the Joint Resources Council at the final investment decision. The portfolio manager attends all lifecycle management decision points involving each investment increment of an operational capability to disclose the impact on an end-state capability of not approving an investment increment.

The service team or program office must complete all phase activities and artifacts to qualify for a decision to proceed to the next lifecycle management phase, but can return to the Joint Resources Council at any time including the next decision point if the recommendation is to terminate the effort.

The Air Traffic Services Committee reviews all JRC investment decisions for procurement of air traffic control equipment of \$100,000,000 or more in facilities and equipment costs.

| Decision                         | <b>Decision Body</b>        | <b>Decision Chair</b> |
|----------------------------------|-----------------------------|-----------------------|
| Concept and requirements         | FAA Enterprise Architecture | None                  |
| definition readiness decision    | Board                       | 1,0116                |
| Investment analysis readiness    | JRC                         | Acquisition Executive |
| decision                         | JIC                         | requisition Executive |
| Initial and final investment     |                             |                       |
| decisions                        | JRC                         | Acquisition Executive |
| (including new programs and      |                             | Acquisition Executive |
| extension of current capability) |                             |                       |
| Product demonstration 1          | Note 2                      | Note 2                |
| Production 1 and 2               | Note 2                      | Note 2                |
| In-service 2                     | Note 2                      | Note 2                |
| Program baseline change          | JRC                         | Acquisition Executive |
| F&E, RE&D, and OPS budget        | JRC                         | Acquisition Executive |
| approvals                        | JIC                         | Acquisition Executive |
| FAA Enterprise Architecture      | JRC                         | Acquisition Executive |
| changes                          | JIC                         | Acquisition Executive |

Table 1.2.6-1 Lifecycle Management Decision-Making

<sup>1</sup> Decision required for developmental products. See AMS section 2.6.1.

<sup>2</sup> The Joint Resources Council designates the product demonstration, production and inservice decision authorities at the final investment decision. If the JRC retains any of these decisions, the chair is the Acquisition Executive.

The JRC Executive Secretariat supports the Acquisition Executive and Joint Resources Council in executing decision-making responsibilities. The Secretariat ensures service organizations have complied with AMS policy requirements before seeking JRC approval. The Secretariat also manages the JRC decision-making processes and acquisition quarterly program reviews on behalf of the Acquisition Executive.

Service organizations make and are accountable for all service-level management decisions except those explicitly assigned otherwise by this policy or the Joint Resources Council.

# 1.2.7 Acquisition Quarterly Program Reviews Revised 4/2013

The Joint Resources Council reviews investment programs at acquisition quarterly program reviews to oversee cost, schedule, and technical performance using a standard set of program and performance measures (see AMS 2.1.6). These standard program measures are organized into: financial, schedule, technical, resources, program manager assessment, and external interests. The status of OMB Information Technology Dashboard milestones is also reviewed along with significant program risks. The Directors of each service organization present and discuss performance for all baselined programs and those planning programs that report to the Office of Management and Budget. The reviews use SPIRE, earned-value management (or equivalent), and enterprise architecture data to assess technical, cost, and schedule issues that may impact the ability of programs to meet their acquisition program baseline values. The portfolio manager is present at the reviews to discuss the impact on an operational capability of cost, schedule, or performance shortfalls among capability investment increments and to present for consideration potential baseline adjustments among increments, when applicable.

### 1.2.8 TechStat Reviews Revised 4/2013

The FAA uses TechStat reviews when appropriate to assess underperforming investment programs. A TechStat review is an in-depth examination of program performance data from the OMB Information Technology Dashboard and SPIRE, including associated earned value management data, program management and control data, and actions for achieving the JRC- approved program baseline. The TechStat review results in a corrective action plan to improve program execution and performance within the approved program baseline, or results in other actions if the program is unlikely to improve as baselined. The Joint Resources Council determines whether a TechStat review will be conducted, and uses acquisition quarterly program reviews and investment decision meetings to identify those programs that will be subject to a TechStat review.

### 1.2.9 Cost Accounting Revised 4/2013

The FAA uses a financial management system that integrates planning, budgeting, and accounting across service organizations and appropriations. Cost accounting provides the

financial basis for determining whether the FAA is meeting its performance goals within baseline costs and for determining the actual cost of service delivery.

Cost categories include all activities necessary for full lifecycle management of service delivery, including research, service analysis, concept and requirements definition, investment analysis, solution implementation, operations and support, and decommissioning. The FAA standard lifecycle work breakdown structure, cost accounting system, and labor distribution report are aligned to use the same cost categories and activities.

## 1.2.10 Workforce Development and Qualification Revised 4/2013

The FAA manages its human capital as a critical investment to ensure the agency has the capabilities it needs to achieve business goals. The FAA Acquisition Workforce Council, comprised of executives with acquisition responsibilities from across FAA, sets acquisition workforce-related requirements and oversees implementation and annual update of FAA Acquisition Workforce Plan. The Director of Acquisition Policy and Oversight, who reports directly to the Chief Acquisition Officer, chairs the Acquisition Workforce Council and leads the acquisition career management function. AMS Section 5 contains policy related to the FAA acquisition career program and associated competency, training, and certification requirements for personnel in key acquisition positions.

### 1.2.11 Continuous Improvement Revised 7/2010

The FAA continually improves its policies and guidance to increase the safety, capacity, efficiency, and effectiveness of agency services. It does this through periodic comparison with the best practices of industry and other government organizations. The FAA integrates into its policy and guidance successful practices that save time, reduce cost, and improve customer satisfaction.

### 1.2.12 On-line Policy and Guidance Revised 1/2012

The FAA Acquisition System Toolset (FAST) is the official record of the Acquisition Management System. It is an information system available via the Internet at <a href="http://fast.faa.gov">http://fast.faa.gov</a>. FAST contains official lifecycle acquisition management policy and guidance, process flowcharts, contract clauses, document templates and instructions, checklists, practices, and other job-related aids for use by the workforce.

### 1.2.13 AMS Change Management Revised 1/2012

The Acquisition Executive Board reviews and authorizes development and implementation of acquisition management policy, guidance, processes, practices, procedures, and tools. The Acquisition Executive Board also directs and oversees the Acquisition System Advisory Group (ASAG).

| Changes contribute to FAA strategic goals;                                    |
|---|
| Policy is streamlined and effective;  |
| Best practices from industry and government are incorporated when beneficial; |
| Information is consistent and compatible across functional disciplines;       |
| Quality is maintained and improved; and                                       |
| A consistent enterprise-wide view of policy.                                  |

The ASAG is a cross-organizational body that evaluates proposed changes to acquisition

The ASAG initiates changes or establishes working groups to develop new policy or guidance, as required. It also periodically reviews existing policy for effectiveness. Anyone may propose changes to acquisition management policy or guidance by submitting the change to their ASAG representative, who processes it in accordance with AMS change management procedures. Originators develop proposed changes in conjunction with primary users of the policy or guidance, or in the case of a complex change, with an ad hoc workgroup.

The Administrator approves significant changes to acquisition management policy via the Acquisition Executive. The Acquisition Executive approves all other policy changes. The Director, Acquisition Policy and Oversight approves guidance changes. Approved changes are incorporated into FAST quarterly. The acquisition policy change manager maintains FAST.

# 1.2.14 Legal Coordination Revised 7/2006

management policy and guidance to ensure:

Service organizations coordinate with agency counsel on competitive acquisitions with an estimated total value greater than \$100,000 and on non-competitive acquisitions with an estimated total value greater than \$10,000. In addition, certain matters, described in Procurement Guidance (T1.15), require legal coordination regardless of their dollar value. FAA counsel also advises service organizations regarding legal issues and represents service organizations in litigation and other legal matters. Service organizations document the acquisition file with agency counsel's opinion and recommendations.

At Headquarters, the Assistant Chief Counsel for Procurement, and at Regions and Centers, the Region or Center Counsel, may make written exceptions to this coordination policy, adjust dollar minimums, or in appropriate cases, waive the coordination.

### 1.2.15 AMS Lifecycle Management Documentation Revised 1/20157/2015

Table 1.2.15-1 summarizes the purpose, requirement, responsible organization, and approving official for required AMS lifecycle management planning and control documents. Appendix B contains detailed policy for investment program documents. Complete instructions and templates are in FAST. Click here to view tailoring guidelines by acquisition category.

Click here to view the official storage location of investment-related program documentation.

# Table 1.2.15-1 AMS Lifecycle Acquisition Management Policy Planning and Control Documents

# **Agency-Level Strategic Planning Documents**

| Document  | Purpose   | Requirement  | Responsible<br>Organization(s)  | Approving Official or Body   |
|---|---|--|---|--|
| FAA<br>Strategic Plan<br>(currently<br>Destination<br>2025) | Defines long-<br>range vision and<br>goals for the FAA<br>Establishes top-<br>level<br>performance<br>measures and<br>multi-year<br>performance<br>targets for the<br>FAA | Reviewed and updated annually  | Strategy, Budget,<br>and Planning<br>Committee  | Administrator  |
| NAS Concept<br>of Operations<br>(ConOps)                    | Defines target operational capabilities of the National Airspace System   | Reviewed<br>annually and<br>updated as<br>needed   | Advanced<br>Concepts &<br>Technology<br>Development<br>Office   | NextGen Management<br>Board  |
| NAS Operational Requirements Document (ORD)                 | Specifies FAA operational services consistent with the NAS ConOps   | Updated<br>annually or as<br>necessary to<br>remain<br>consistent with<br>the NAS<br>ConOps            | Advanced Concepts & Technology Development Office  ATO Operational Concepts and Requirements  Lines of business       | NextGen Management Board  Concept Steering Group endorses                      |
| NAS<br>Requirements<br>Document                             | Specifies NAS functional and performance requirements derived from the NAS ORD  | Updated<br>annually or as<br>necessary to<br>remain<br>consistent with<br>the NAS<br>ConOps and<br>ORD | NAS Systems Engineering Services  Advanced Concepts & Technology Development Office  NAS Lifecycle Integration Office | NextGen<br>Management Board<br>NAS Systems<br>Engineering Services<br>endorses |

| FAA                        |   | Reviewed          | ATO Operational Concepts and Requirements Lines of business Chief Information | Joint Resources |
|----------------------------|---|-------------------|---|-----------------|
| Enterprise<br>Architecture | target architecture and the transition  | updated as needed | Officer   | Council         |
| The meeture                | strategy to reach<br>the target<br>Establishes the<br>basis for service<br>organization<br>planning |                   | Assistant<br>Administrator for<br>NextGen                                     |                 |
|                            | Defines the strategic investment plan for the FAA   |                   |   |                 |

# **Portfolio-Level Documents**

| Document                | Purpose           | Requirement    | Responsible       | Approving        |
|-------------------------|-------------------|----------------|-------------------|------------------|
|                         |                   |                | Organization(s)   | Official or Body |
| Operational             | Defines the       | Required as    | Advanced          | NextGen          |
| Capability Business     | rough costs and   | the basis for  | Concepts and      | Systems          |
| Case (NAS)              | benefits of an    | establishing a | Technology        | Engineering &    |
|                         | operational       | new            | Development       | Modeling         |
|                         | capability        | operational    | Office            |                  |
|                         |                   | capability     |                   |                  |
|                         |                   |                | ATO Program       |                  |
|                         |                   |                | Management        |                  |
|                         |                   |                | Office            |                  |
|                         |                   |                |                   |                  |
|                         |                   |                | Investment        |                  |
|                         |                   |                | Analysis &        |                  |
|                         |                   |                | Planning          |                  |
|                         |                   |                |                   |                  |
|                         |                   |                | Service           |                  |
|                         |                   |                | organizations     |                  |
| Operational             | Defines the       | Preliminary    | Portfolio manager | NextGen          |
| Capability              | relationships,    | plan required  |                   | Management       |
| <b>Integration Plan</b> | responsibilities, | upon formation | Capture team      | Board            |
| (NAS)                   | and agreements    | of a capture   |                   |                  |
|                         | between all       | team           |                   |                  |

| organizations     |                  |
|-------------------|------------------|
| contributing to t | he Final plan    |
| achievement of    | an required when |
| operational       | all capability   |
| capability        | elements have    |
|                   | entered concept  |
|                   | and              |
|                   | requirements     |
|                   | definition       |

# **Program-Level Documents**

| Document             | Purpose          | Requirement            | Responsible Organization(s) | Approving<br>Official or Body |
|----------------------|------------------|------------------------|-----------------------------|-------------------------------|
| Acquisition          | Establishes the  | Required for the final | Investment                  | Chair of the Joint            |
| Program              | performance,     | investment decision    | analysis team               | Resources                     |
| Baseline             | cost, and        |                        | headed by the               | Council                       |
|                      | schedule         |                        | service                     |                               |
|                      | baselines for an |                        | organization with           | Designated                    |
|                      | investment       |                        | the mission need            | ACAT reviewers                |
|                      | program segment  |                        |                             |                               |
| Program              | Defines the      | Preliminary            | Implementing                | ATO: Vice                     |
| Requirements         | operational      | document at the        | service                     | Presidents of the             |
| Document             | framework and    | investment analysis    | organization                | executing service             |
|                      | performance      | readiness decision     |                             | organization during           |
|                      | requirements an  |                        | Operating service           | solution                      |
|                      | investment       | Revised document at    | organization                | implementation                |
|                      | program must     | the initial investment |                             | and the operating             |
|                      | achieve          | decision               |                             | service                       |
|                      |                  |                        |                             | organization                  |
|                      |                  | Final document at the  |                             |                               |
|                      |                  | final investment       |                             | Non-ATO:                      |
|                      |                  | decision               |                             | Second-level                  |
|                      |                  |                        |                             | executive of the              |
|                      |                  |                        |                             | executing service             |
|                      |                  |                        |                             | organization during           |
|                      |                  |                        |                             | solution                      |
|                      |                  |                        |                             | implementation                |
| <b>Business Case</b> | Provides the     | Initial business       | Investment                  | ATO: Vice                     |
|                      | analytical and   | case at the initial    | analysis team,              | President of the              |
|                      | quantitative     | investment decision    | headed by the               | implementing                  |
|                      | basis for        |                        | service                     | service                       |
|                      | investment       | Final business case at | organization with           | organization                  |
|                      | decisions        | the final investment   | the mission need            |                               |
|                      |                  | decision.              |                             | Non-ATO:                      |

|                   | I                  | T                          |                      | I                    |
|-------------------|--------------------|----------------------------|----------------------|----------------------|
|                   |                    |                            |                      | Director of the      |
|                   |                    |                            |                      | implementing         |
|                   |                    |                            |                      | service              |
|                   |                    |                            |                      | organization         |
|                   |                    |                            |                      |                      |
|                   |                    |                            |                      | Designated           |
|                   |                    |                            |                      | ACAT reviewers       |
| Implementation    | Defines overall    | For the initial            | Implementing         | Chair of the Joint   |
| Strategy and      | implementation     | investment decision,       | service              | Resources            |
| 00                | _ <u>-</u>         | · ·                        |                      | Council              |
| Planning          | strategy and       | alternatives analyzed      | organization         | Council              |
| Document          | planning for an    | and summarized             |                      | 1 mg G1 : 6          |
|                   | investment         | comparatively for          | Operating service    | ATO: Chief           |
|                   | program            | factors in select sections | organization         | Operating Officer    |
|                   |                    | of the ISPD                |                      | / Deputy Chief       |
|                   |                    |                            |                      | Operating            |
|                   |                    | Complete ISPD is           |                      | Officer              |
|                   |                    | required for the final     |                      |                      |
|                   |                    | investment decision        |                      | Non-ATO:             |
|                   |                    |                            |                      | Second-level         |
|                   |                    | Reviewed annually          |                      | executive of the     |
|                   |                    |                            |                      | organization         |
|                   |                    |                            |                      | executing during     |
|                   |                    |                            |                      | solution             |
|                   |                    |                            |                      | implementation       |
|                   |                    |                            |                      | implementation       |
|                   |                    |                            |                      | Stakeholder          |
|                   |                    |                            |                      |                      |
|                   |                    |                            |                      | organizations        |
|                   |                    |                            |                      | approve specific     |
|                   |                    |                            |                      | sections per the     |
|                   |                    |                            |                      | ISPD template        |
|                   |                    |                            |                      |                      |
|                   |                    |                            |                      | Updated sections     |
|                   |                    |                            |                      | approved at the      |
|                   |                    |                            |                      | same level           |
| Program           | Defines how the    | PMP required for the       | Implementing         | Director,            |
| Management        | implementation     | final investment           | service organization | implementing         |
| Plan              | strategy of the    | decision                   |                      | service              |
|                   | investment         |                            |                      | organization         |
|                   | program will be    | Reviewed annually          |                      |                      |
|                   | executed during    | -                          |                      | Updates approved     |
|                   | solution           |                            |                      | at the same level    |
|                   | implementation     |                            |                      |                      |
| Test and          | Describes the test | <u>Preliminary</u>         | Test and evaluation  | Director of the test |
| <b>Evaluation</b> | strategy and       | document at initial        | service              | service              |
| Master Plan       | scope of a test    | investment                 | organization(s)      | organization         |
|                   | program Defines    | decision                   | · ——                 |                      |
|                   | ı- <del> </del>    | <del></del>                | l                    | l                    |

| 1                  |                    |                         |               |                          |
|--------------------|--------------------|-------------------------|---------------|--------------------------|
|                    | the test and       |                         |               | Non-ATO:                 |
|                    | <u>evaluation</u>  | Initial document at the |               | Second level             |
|                    | methodologies      | final investment        |               | executive of the         |
|                    | that will be used  | decision                |               | organization             |
|                    | to assess safety   |                         |               | executing during         |
|                    | hazard controls    | Final document after    |               | solution                 |
|                    | and mitigations    | contract award or as    |               | implementation           |
|                    | and security risks | defined in the ISPD     |               |                          |
|                    |                    | defined in the 151 D    |               | For Non NAS IT           |
|                    |                    |                         |               | programs: AIT,           |
|                    |                    |                         |               | <b>Solution Delivery</b> |
|                    |                    |                         |               | <u>Service</u>           |
| <b>OMB Exhibit</b> | Budgetary          | Preliminary             | Investment    | ATO: Chief               |
| 300                | document           | document at the         | analysis team | Operating                |
|                    | required by        | initial investment      | -             | Officer                  |
|                    | OMB for            | decision                | Implementing  |                          |
|                    | designated         |                         | service       | Non-ATO:                 |
|                    | investment         | Final document at the   | organization  | Associate or             |
|                    | programs           | final investment        |               | Assistant                |
|                    | P1 981 411115      | decision                |               | Administrator of         |
|                    |                    | decision                |               | the line of              |
|                    |                    |                         |               | business or staff        |
|                    |                    |                         |               | office                   |
|                    |                    |                         |               | office                   |
|                    |                    |                         |               | Acquisition              |
|                    |                    |                         |               | Executive                |
|                    |                    |                         |               | LACCULIVE                |
|                    |                    |                         |               | Chief Financial          |
|                    |                    |                         |               | Officer                  |
|                    |                    |                         |               |                          |
|                    |                    |                         |               | Chief                    |
|                    |                    |                         |               | Information              |
|                    |                    |                         |               | Officer                  |
|                    |                    |                         |               |                          |
|                    |                    |                         |               | Deputy                   |
|                    |                    |                         |               |                          |
|                    |                    |                         |               |                          |
|                    |                    |                         |               | Administrator concurs    |

### 1.2.16 OMB Budget Documentation Revised 1/2015

The OMB Exhibit 300 is a budget request document updated yearly and sent to Office of Management and Budget during the annual budget cycle for designated capital investment programs. Service organizations prepare the OMB Exhibit 300, which is independently reviewed and scored by the Office of Information & Technology, Strategy & Performance Service, Investment Portfolio & CPIC Branch. The Chief Information Officer, Chief Financial Officer, and Acquisition Executive approve

the OMB Exhibit 300 for designated information technology capital investments before submission to OMB. The Acquisition Executive and Chief Financial Officer approve OMB 300 Exhibits for designated non-information technology capital investments.

## 1.2.17 National Acquisition Evaluation Program Added 7/2007

The National Acquisition Evaluation Program provides oversight of FAA acquisition management through the evaluation of contracts, programs, and acquisition management practices. The goal is to ensure consistent implementation of AMS policy and guidance by FAA offices and to identify innovative processes or opportunities for improvements. Recommendations based on findings are tracked to closure to promote continuous process improvement and procurement integrity.

### 1.2.18 Earned Value and Baseline Management Added 7/2013

The Office of Management and Budget (OMB) directs all Government agencies to use an earned value management (EVM) system that complies with the industry EVMS Standard, American National Standard Institute, Electronic Industries Alliances-748, for capital investment programs involving development, modernization, or enhancement. Service organizations comply with this directive, which includes an integrated baseline review of cost and schedule projections within six months of contract award or program baseline approval. The earned-value management focal point reports quarterly the earned-value status of major investment programs to the Joint Resources Council.

Service organizations manage investment programs during solution implementation within controlled acquisition program baselines approved at the final investment decision. They take action to correct negative variance from any cost, schedule, or performance baseline measure. Negative variances that exceed 10 percent must be reported quarterly to the Joint Resources Council, along with an explanation of the cause(s), impact on service delivery, and a recovery strategy. The Administrator must notify the Congress of any program cost or schedule variance exceeding 50 percent and must either terminate the activity or justify why it should be continued and provide a recovery plan. When the Joint Resources Council determines an investment program cannot recover from a degenerating negative baseline variance, it may elect to rebaseline the effort by adding resources or changing its scope or schedule, or it may decide to terminate the activity.

Section Revised: - AMS Policy 2.5.1 Investment Analysis - What Must Be Done Section Revised: - AMS Policy 2.5.3 Who Does It?

**Acquisition Management Policy - (1/20157/2015)** 

2.5 Investment Analysis Revised 4/2013

2.5.1 What Must Be Done Revised 1/2015/2015

2.5.2 Outputs and Products Revised 1/2010

2.5.2.1 Initial Investment Analysis Revised 4/2013

# 2.5.2.2 Final Investment Analysis Revised 1/2015

- 2.5.3 Who Does It? Revised 4/2013/2015
  2.5.4 Who Approves? Revised 4/2013
  2.5.5 Initial Investment Decision Added 4/2013
- 2.5.6 Final Investment Decision Added 4/2013

## 2.5 Investment Analysis Revised 4/2013

Investment analysis is a disciplined process that supports sound capital investment decisions. Investment analysis is conducted in the context of the enterprise architecture and FAA strategic goals and objectives. Such plans serve as guides to prioritize current and future investment analyses. Investment analyses, in turn, help to refine and mature those plans by providing decision-makers with a clear picture of investment opportunities and their risks and value.

NAS and non-NAS roadmaps in the enterprise architecture establish when an operational capability or service need must be in place. This, in turn, determines when investment analysis should be complete to allow sufficient time to acquire and deploy a suitable solution. The key is to balance timeliness, complexity, and size of the investment analysis with the rigorous development of quantitative data needed by the Joint Resources Council to make an informed investment decision.

Affordability and accurate cost and schedule estimates are important factors in the decision to approve a new investment program. The results of investment analysis help the Joint Resources Council determine which potential investments will improve operations across the air transportation system and by how much. The outcome of investment analysis can be used to make individual, portfolio, and prioritization decisions.

When the investment initiative is an element of an operational capability (NAS only), the capture team for the capability (if established) participates in and contributes to investment analysis activity. The capture team is populated with representatives from each service team or program office that will provide an increment of the overall operational capability. They ensure the alternative emerging from initial investment analysis for each increment fits within the strategy for obtaining the operational capability and can provide the necessary performance and functionality.

A nonmateriel solution that emerges during investment analysis may proceed to solution implementation upon approval of solution requirements and implementation and resource planning, if it meets the following criteria:

| <ul> <li>□ Satisfies the need;</li> <li>□ Can be achieved within approved budgets; and is</li> <li>□ Operationally acceptable to the user.</li> </ul>   |
|---|
| This determination is made by the Vice President or Director of the service organization with the service need with the concurrence of the FAA Enterprise Architecture Board.   |
| All proposed investments must answer the same basic questions:  |
| <ul> <li>□ What is the problem that needs to be addressed or resolved?</li> <li>□ What is the range of alternatives that could address this problem?</li> <li>□ What are the costs, benefits, and risks associated with each alternative?</li> <li>□ Based on the above, what is the recommended course of action?</li> </ul> |

Figure 2.5-1 illustrates the phases and decision points of investment analysis. Initial investment analysis evaluates alternative solutions to service needs, and recommends the most promising for further development. Final investment analysis develops detailed cost and benefits estimates, detailed plans, and final requirements for the most promising alternative.

Investment Initial Final Analysis Investment Investment Go to Readiness Decision Decision Solution Decision Initial Final Implementation Investment Investment Analysis Analysis Plan Analyze Investment Alternatives Program

Figure 2.5-1 Phases and Decision Points of Investment Analysis

The level of activity required during investment analysis is based on the acquisition category assigned to the investment opportunity. In general, the larger and more complex an investment, the greater the level of effort required during investment analysis.

Very complex investment programs are structured into manageable, lower-risk segments and approved incrementally by the Joint Resources Council. When sequential segments are required to fully implement an investment opportunity, the service organization conducts final investment analysis for each segment and brings planning and baseline documents to Joint Resources Council for approval.

## 2.5.1 What Must Be Done Revised 1/20157/2015

Figure 2.5.1-1 defines the key activities that must be completed during initial investment analysis. The Investment Analysis Process Guidelines on FAST describe the full range of activities that may be required.

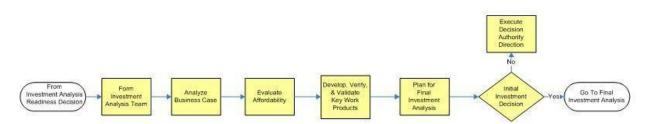


Figure 2.5.1-1 Key Activities of Initial Investment Analysis

Form Investment Analysis Team. An investment analysis team is formed and scaled to the size and complexity of the analysis. Team membership is flexible depending on the needs of the analysis, but typically includes system, technical, logistics, specialty engineering, testing,

- and operational subject-matter experts, and business case analysts. Security and regulatory specialists are team members when potential solutions involve facility, asset, personnel, or information security; hazardous materials; emergency operations; or when they impact aircraft, airspace, or the public.
- Analyze Business Case. The business case focuses on those key factors that demonstrate value and worth of a proposed investment initiative to the FAA and the aviation industry. This includes updating the preliminary requirements document to reflect any changes resulting from the investment analysis. For new investments (in accordance with the ACAT determination form), the test organization develops a preliminary test and evaluation master plan based upon the concepts and functions documented in the preliminary requirements document to support the initial investment decision. When the investment initiative is an increment necessary to achieve an operational capability, the impact on achieving the capability is also a key factor of the business case. See the Business Case Analysis Guidance for more details.
- □ **Evaluate Affordability.** FAA Finance assesses the budget impact and relative contribution to agency goals of each alternative against other ongoing and proposed investment programs in the FAA financial baseline. The impact assessment may shape subsequent deliberations of the investment analysis team.
- □ **Develop, Verify, and Validate Key Work Products.** Validation of the business case is described in the Business Case Evaluation and Assessment Guide. Verification and validation for all other documentation is described in the FAA AMS Lifecycle Verification and Validation Guidelines. The full list of work products that may be required for the initial investment decision is found on the JRC Secretariat website.
- □ Plan for Final Investment Analysis. The plan for final investment analysis defines work activities, resources, schedules, roles and responsibilities, and products. It also specifies exit criteria and a planning date for the final investment decision. See Investment Analysis Plan Guidance and Template for more details.

Figure 2.5.1-2 defines the key activities that must be completed during final investment analysis. The Investment Analysis Process Guidelines on FAST describe the full range of activities that may be required.

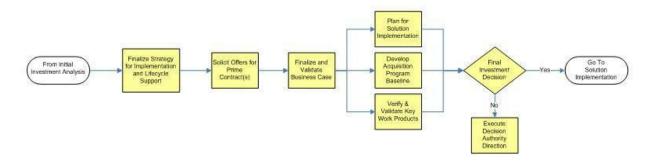


Figure 2.5.1-2 Key Activities of Final Investment Analysis

Finalize Strategy for Implementation and Lifecycle Support. The implementing service organization or program office develops a detailed strategy for procuring, implementing, and supporting the solution over its service life with input from the

| investment analysis team. This strategy is the foundation for a request for offer to industry for procurement of the solution and all subsequent program planning. For new          |
|---|
| investments, in support of the final investment decision, the test organization develops  |
| an initial test and evaluation master plan (in accordance with the ACAT determination   |
| form) that is based on the final requirements document, describes the test program for  |
| the investment program, establishes the basis for test requirements in the request for  |
| offer to industry, and establishes test costs/schedules in the acquisition program baseline.  |
| Solicit Offers For Prime Contract(s). The implementing service organization or program  |
| office prepares an independent government cost estimate, releases a request for offers, and   |
| evaluates industry responses for completeness, technical suitability, and compliance with the   |
| statement of work. The most acceptable industry response forms the basis for the final  |
| business case and acquisition program baseline.   |
| Finalize and Validate Business Case. The business case and supporting documents are   |
| prepared according to the ACAT designation for the solution. These requirements are found   |
| in the appropriate business case template located on the investment analysis page in FAST.  |
| This includes preparation of the final requirements document.   |
| Plan for Solution Implementation. The investment analysis team develops realistic plans for   |
| solution implementation using the FAA standard work breakdown structure and a tailored inservice review checklist. Planning must cover all key aspects of obtaining the solution so |
| costs are reflected in resource documents and the acquisition program baseline. The program   |
| implementation strategy is recorded in the implementation strategy and planning document.   |
| The program management plan specifies how the service organization or program office will   |
| execute the implementation strategy and defines the roles and responsibilities of key   |
| stakeholders.   |
| <b>Develop Acquisition Program Baseline.</b> The acquisition program baseline establishes the   |
| cost, schedule, and key performance baselines for the investment initiative. It is the agreement  |
| between the implementing service organization or program office and the Joint Resources   |
| Council concerning the performance that will be obtained and the timeframe and resources  |
| agreed to by the agency. For some investment types (e.g., facilities, service contracts, variable   |
| quantities), an execution plan is developed in lieu of an acquisition program baseline.   |
| Verify and Validate Key Work Products. Investment Planning and Analysis validates the   |
| business case as described in Business Case Evaluation and Assessment Guide. Verification   |
| and validation for all other program work products is according to the FAA AMS Lifecycle  |
| Verification and Validation Guidelines. The full list of work products that may be required for   |
| the final investment decision is found on the JRC Secretariat website.  |

See detailed guidance for <u>investment analysis</u>. In all cases, organizations conducting investment analysis must apply the standard processes and guidelines located in the investment analysis section of FAST.

# 2.5.2 Outputs and Products Revised 1/2010

# 2.5.2.1 Initial Investment Analysis Revised 4/2013

| The principal output for initial investment analysis is information that enables the Joint Resources Council to select the best alternative that meets the required performance and offers the greatest value to the FAA and its customers. The following are required products: |
|--|
| <ul> <li>□ Updated program requirements document;</li> <li>□ Initial business case;</li> <li>□ Initial implementation strategy and planning documents for each alternative; and</li> <li>□ Plan for final investment analysis.</li> </ul>  |
| Key work products are verified and validated according to the FAA AMS Verification and Validation Guidelines before the initial investment decision.   |
| 2.5.2.2 Final Investment Analysis Revised 1/2015   |
| The principal output for final investment analysis is detailed planning for the alternative selected for implementation. The following are required products:  |
| ☐ Acquisition program baseline;  |
| ☐ Final program requirements document;   |
| ☐ Final business case;   |
| ☐ Final implementation strategy and planning document;   |
| ☐ Program management plan; and   |
| ☐ Updated architecture products and amendments.  |

Key work products are verified and validated according to the FAA AMS Verification and Validation Guidelines before the final investment decision.

# 2.5.3 Who Does It? Revised 4/20137/2015

| Organization                     | Responsibilities   |
|----------------------------------|--|
| Investment analysis team         | ☐ Performs the activities and prepares the outputs and   |
|                                  | products of investment analysis  |
| Implementing service             | ☐ Typically leads the investment analysis team   |
| organization or program          | ☐ Coordinates with stakeholders throughout investment  |
| office                           | analysis   |
| Investment Planning and Analysis | ☐ Provides standards, guidance, training, and consulting services to ensure consistency in the conduct of investment |
|                                  | analyses   |
|                                  | ☐ Provides analysts who may lead, conduct, or review business cases as agreed to in the investment analysis plan     |
|                                  | ☐ Verifies and validates the business case for both NAS and non-<br>NAS investments                                  |
| Stakeholder organizations        | ☐ Participate as team members throughout investment analysis   |
| Capture team (NAS only)          | ☐ Contributes to investment analysis activity when the   |

|                           | investment initiative is an element of an operational                               |
|---------------------------|---|
|                           | capability  |
|                           | ☐ Ensures the recommended alternative can provide the                               |
|                           | performance and functionality necessary to achieve the                              |
|                           | overall operational capability  |
| Test service organization | <ul> <li>Develops the preliminary and initial test and evaluation master</li> </ul> |
|                           | <u>plan</u>   |

## 2.5.4 Who Approves? Revised 4/2013

Approval authorities for the products of investment analysis are found in AMS Appendix B, Acquisition Planning and Control Documents.

### 2.5.5 Initial Investment Decision Added 4/2013

At the initial investment decision, the Joint Resources Council selects the best alternative for implementation or rejects all alternatives and specifies what action is needed next.

If the Joint Resources Council approves an alternative, it:

| Selects an alternative for implementation;   |
|--|
| Approves entry into final investment analysis;   |
| Approves funding for any analytical or developmental work related to the selected          |
| alternative; and   |
| Designates a service organization to lead final investment analysis and be responsible for |
| solution implementation.   |

Alternatives can be rejected if the technology is not mature or when requirements are not sufficiently defined. If rejected, the Joint Resources Council can approve such actions as research, further analysis, development, or termination.

When the initial investment decision involves an investment initiative that is an element of an operational capability, the portfolio manager attends to explain the interrelationships among capability elements and the impact of not approving the initiative on the overall operational capability.

The Joint Resources Council uses the following standard selection criteria when making the investment decision:

| Lifecycle costs;                                      |
|---|
| Benefits;   |
| Risk;   |
| Benefit to cost ratio;                                |
| Consistency with the FAA enterprise architecture; and |

| ☐ Impact on FAA strategic goals.  |  |  |
|---|--|--|
| 2.5.6 Final Investment Decision Added 4/2013  |  |  |
| The Joint Resources Council makes the final investment decision. If the Joint Resources Council disapproves the recommendation, it returns the investment package with specific instructions for further work or terminates the effort. If the Joint Resources Council accepts the recommendations, it:   |  |  |
| <ul> <li>Approves the investment program for implementation and delegates responsibility to the appropriate service organization or program office;</li> <li>Approves the final program requirements document, final business case, and the implementation strategy and planning document;</li> <li>Approves the acquisition program baseline;</li> <li>Commits the FAA to funding the program segment, as specified in the acquisition program baseline;</li> <li>Approves updated architecture products and amendments; and</li> <li>Approves adjustments to FAA plans and budgets to reflect the investment decision.</li> </ul> |  |  |
| Before the Joint Resources Council approves documents at the initial or final investment decisions, the documents require approval from other officials, as can be found in AMS Appendix B, Acquisition Planning and Control Documents.   |  |  |
| When a final investment decision involves an investment initiative that is an element of an operational capability, the portfolio manager attends to explain the interrelationships among capability elements and the impact of not approving the initiative on the overall operational capability.   |  |  |
| Section Revised: - AMS Policy 4.4.1 Test and Evaluation - Service Analysis, Concept and Requirements Definition, and Investment Analysis Section Revised: - AMS Policy 4.4.2 Test and Evaluation - Solution Implementation  |  |  |

Section Revised: - AMS Policy 4.4.2 Test and Evaluation - Solution Implementation

Acquisition Management Policy - (4/20137/2015)

4.4 Test and Evaluation Revised 11/2009

4.4.1 Service Analysis, Concept and Requirements Definition, and Investment Analysis Revised 4/20137/2015

4.4.2 Solution Implementation Revised 1/20127/2015

4.4.3 In-Service Management Revised 11/2009

### 4.4 Test and Evaluation Revised 11/2009

| Test <u>and &amp; Ee</u> valuation is planned and conducted in accordance with the AMS Test and Evaluation Process Guidelines found on FAST. The objectives are to: |
|---|
|   |
| ☐ Provide essential information in support of decision-making;  |
| ☐ Provide essential information for assessing technical and investment risks;   |
| ☐ Verify the attainment of technical performance specifications and objectives; and   |
| ☐ Verify and validate that investment products are operationally effective and suitable for the   |
| intended use.   |

### 4.4.1 Service Analysis, Concept and Requirements Definition, and Investment Analysis

Revised 4/20137/2015

During service analysis, test and evaluation activities help <u>identify and prioritize critical FAA service</u> in the identification and prioritization of the critical FAA needs. During concept and requirements definition, test and evaluation helps <u>to identify determine</u> the best alternative solutions to those needs. During investment analysis, the criteria for testing operational effectiveness and suitability are expressed as <u>critical performance requirements and</u> critical operational issues in the program requirements document

The test strategy for the investment program is defined in the implementation strategy and planning document (ISPD). The objective of any test program is to verify achievement of technical performance requirements and to validate the operational suitability and effectiveness of the acquired solution.

Based on complexity and criticality, new investments will be required to deliver a test and evaluation master plan (TEMP) as indicated on the ACAT designation form. The TEMP provides more detail than the ISPD of test needs, scope, and plans for new investment initiatives. A preliminary TEMP is developed based upon the concepts and functions documented in the preliminary program requirements to support the initial investment decision. An initial TEMP is developed once program requirements are finalized and the identity of the most promising solution is known. The initial TEMP describes the test program and establishes the basis for test requirements in the request for offer to industry and test costs/schedules in the acquisition program baseline. The initial TEMP is required to support the final investment decision. The ISPD defines the plan and schedule for delivery of the final TEMP. All contractor and FAA testing is planned, conducted, and reported in accordance with the TEMP. T&E strategy and implementation activities are defined in the implementation strategy and planning document. They describe the overall T&E program for verifying achievement of technical performance requirements and development of operationally suitable investment products.

### 4.4.2 Solution Implementation Revised 1/20127/2015

All system/software and facility investment programs follow a structured, disciplined T&E process appropriate to the product or facility being tested. Initially, test and evaluation in solution implementation assesses potential operational, safety, and security risks and identifies opportunities for risk mitigation. Later it examines operational readiness and supplies data to decision-makers in support of the production and in-service decisions.

A typical T&E program consists of developmental test, operational test, site acceptance testing, and field familiarization testing, as well as independent operational assessment for designated programs (see Section 4.5). It is recorded in the final test and evaluation master plan for new investment initiatives once the contractor has completed design of all major software and hardware configuration items and once all test requirements are known. The test program for the other ACATs is defined in the program management plan. Test and evaluation of commercial and non-developmental items is tailored to account for test results already available from vendors. For example, an operational capability demonstration may reduce system test requirements. As part of field familiarization testing, all systems/software products normally require site operational testing and information security testing to support the site operational Test and evaluation of commercial and non-developmental items is tailored to account for test results already available from vendors. For example, an operational eapability demonstration may reduce system test requirements. As part of field familiarization testing, all systems/software products normally require site operational testing and information security testing to support the site operational readiness decision.

### 4.4.3 In-Service Management Revised 11/2009

The Test and Evaluation Gold Standard and Implementation Guide defines standards for the development and implementation of all modifications to the National Airspace System during inservice management. It includes a standardized testing process that lists the phases and detailed activities to be addressed. The Gold Standard process as designed will support/ensure that the activity of safety risk management is address in the FAA.

The Test and Evaluation Gold Standard Matrix is used as a management tool to record development and test status, improve internal and external communications, and support risk assessment using best business practices. This document is applicable to all NAS modifications across all FAA organizations.

# Section Revised: - AMS Policy Appendix C. Definitions

**Acquisition Management Policy - (17/2015)** 

Appendix C: Definitions Revised 74/2015

## Appendix C: Definitions Revised 71/2015

**Access.** In general the term "access" is defined as the ability to physically enter or pass through an FAA area or a facility; or having the physical ability or authority to obtain FAA sensitive information, materials and resources. In relation to classified information, the ability, authority or opportunity to obtain knowledge of such information or materials.

**Acquisition Executive Board** is the primary executive-level body that assists and supports the FAA Acquisition Executive and Joint Resources Council establish, change, communicate, and implement acquisition management policy, practices, procedures, and tools.

**Acquisition planning** is the process by which all acquisition-related disciplines of an investment program are developed, coordinated, and integrated into a comprehensive plan for executing the program and meeting the stated requirements within the cost and schedule boundaries. Acquisition planning is normally associated with detailed program planning during final investment analysis, but is also important at other times of the lifecycle management process.

**Acquisition program baseline** establishes the performance to be achieved by an investment program, as well as the cost and schedule boundaries within which the program is authorized to proceed. The acquisition program baseline is a formal document approved by the investment decision authority at the final investment decision, and is a contract between the FAA and the service organization.

**Acquisition strategy.** The overall concept and approach of an investment program for acquiring a capability to meet the requirements and perform within the boundaries set forth in the acquisition program baseline. The strategy considers all aspects of a program such as acquisition approach, contracting, logistics, testing, systems engineering, risk management, program management, impact on facilities, human factors, schedules, and cost. The results are documented in the implementation strategy and planning document during final investment analysis.

**Affiliate business** is a business that controls or has the power to control another business, or a third party that controls or has the power to control another business (contractual relationships must be considered).

Agreement with a state government, local government, and/or public authority is a written agreement between the FAA and a state or local government or public authority where the FAA agrees to receive from, or exchange supplies or services with, the other party.

**Agreements with private parties** are written documents executed by the parties, which call for the exchange of services, equipment, personnel, or facilities, or require the payment of funds to the FAA, or confirm mutual aid and assistance and outline the specific responsibilities of each party. The term includes agreements under which the FAA provides services, equipment, personnel, or facilities and obtains reimbursement on a negotiated basis from the other party. The term excludes procurement contracts for real estate, supplies and services.

Agreements with public entities other than Federal agencies are written documents executed by the parties which call for the exchange of services, equipment, personnel, or facilities, or require the payment of funds to the FAA, or confirm mutual aid and assistance and outline the specific responsibilities of each party. The term includes agreements under which the FAA provides services, equipment, personnel, or facilities and obtains reimbursement on a negotiated basis from the other party.

**Alternative dispute resolution (ADR).** Any procedure or combination of procedures voluntarily used to resolve issues in controversy without the need to resort to litigation. These procedures may include, but are not limited to, assisted settlement negotiations, conciliation, facilitation, mediation, factfinding, mini-trials, and arbitration. These procedures may involve the use of neutrals.

**Approval.** The agreement that an item is complete and suitable for its intended use.

Architect-engineer services are: (1) professional services of an architectural or engineering nature, as defined by State law, if applicable, which are required to be performed or approved by a person licensed, registered, or certified to provide such services; (2) professional services of an architectural or engineering nature performed by contract that are associated with research, planning, development, design, construction, alteration, or repair of real property; and (3) such other professional services of an architectural or engineering nature, or incidental services, which members of the architectural and engineering professions (and individuals in their employ) may logically or justifiably perform, including studies, investigations, surveying and mapping, tests, evaluations, consultations, comprehensive planning, program management, conceptual designs, plans and specifications, value engineering, construction phase services, soils engineering, drawing reviews, preparation of operating and maintenance manuals, and other related services.

**Associate program manager for logistics.** An integrated logistics support specialist responsible for ensuring that all NAS integrated logistics support requirements are identified and satisfied for each piece of equipment in the lifecycle management process, RE&D program, and major equipment modification program.

**Auctioning techniques** is a method of screening vendors using commercial competition techniques, and includes such techniques as indicating to an offeror a cost or price that it must meet to obtain further considerations; advising an offeror of its price standing relative to another offeror; and otherwise furnishing information about other offerors' prices. This may only be used for commercially available products.

**Baseline.** (1) An agreed-to-description of the attributes of a product, at a point in time, which serves as a basis for defining change; (2) an approved and released document, or a set of documents, each of a specific revision; the purpose of which is to provide a defined basis for managing change; (3) the currently approved and released configuration documentation; or (4) a released set of files consisting of a software version and associated configuration documentation.

**Best value.** A term used during procurement source selection to describe the solution that is the most advantageous to the FAA, based on the evaluation of price and other factors specified by

the FAA. This approach provides the opportunity for trade-offs between price and other specified factors, and does not require that an award be made to either the offeror submitting the highest rated technical solution, or to the offeror submitting the lowest cost/price, although the ultimate award decision may be to either of these offerors.

**Budget impact assessment.** The process of assessing the budget impact of each alternative solution developed in the investment analysis phase against all existing programs in the FAA's financial baseline for the same years. Standard criteria are used to determine the priority of the candidate program in relation to all others. If the amount of funding available for the years in question is insufficient, offsets from lower priority programs are identified. A budget impact assessment is also performed when considering program baseline changes for existing programs that involve an increase in the cost baseline and the need to reallocate resources.

**Business case analysis** summarizes the analytical and quantitative information developed during investment analysis in the search for the best means for satisfying mission need. It is the primary information document supporting the initial investment decision.

**Cancellation** is the termination of the total requirements of all remaining program years of a multiyear contract. Cancellation results when the contracting officer notifies the contractor of nonavailability of funds for contract performance for any subsequent program year, or fails to notify the contractor that funds are available for performance of the succeeding program year requirement.

**Cancellation ceiling** is the maximum amount that the FAA will pay the contractor which the contractor would have recovered as a part of the unit price, had the contract been completed. The amount, which is actually paid to the contractor upon settlement for unrecovered costs (which can only be equal to or less than the ceiling), is referred to as the cancellation charge. This ceiling generally includes only nonrecurring costs.

**Capability shortfall.** The difference between the projected demand for services and the ability to meet that demand with current assets.

**Capital Investment Team (CIT).** A team composed of representatives from budget and finance, and, as appropriate, representatives of Air Traffic Organization (ATO) vice-presidents and other FAA organizations, responsible for assessments of investment programs to determine whether the program should be funded. The assessments involve comprehensive reviews based on cost, schedule and performance of the investments. The consolidated budget request is then reviewed and approved by the Joint Resources Council (JRC).

Capital Planning and Investment Control (CPIC). The process used by FAA management to identify, select, control, and evaluate proposed capital investments. The CPIC process encompasses all stages of capital management including planning, budgeting, procurement, deployment, and assessment. Within the FAA, the Acquisition Management System is the CPIC process. Mission analysis and investment analysis are the "select" portion of the CPIC process, solution implementation is the "control" phase, and in-service management is the "evaluate" phase.

Capture Team. Cross-organizational representatives responsible for coordinating integrated decision-making across investment increments necessary to achieve an operational capability for the NAS. Capture teams monitor implementation of each investment increment and may recommend changes in the distribution of financial assets among capability increments to optimize delivery of the operational capability. Capture teams also participate in activities to validate that an operational capability has achieved its projected benefits and to plan and execute remedial action when it has not.

**Cardholder** means the individual government employee with the organization who is a warranted contracting officer or to whom a written delegation of procurement authority has been issued by the cognizant Chief of the Contraction Office or designee granting the use of purchase and credit transactions made within the established billing period.

Certified cost or pricing data refers to all facts that, at the time of the price agreement, the seller and buyer would reasonably expect to affect price negotiations. The data requires certification, and is factual, not judgmental, and therefore verifiable. While the data do not indicate the accuracy of the prospective contractor's judgment about estimated future costs or projections, they do include the data utilized to form the basis for that judgment. Certified cost or pricing data is more than historical accounting data; it is all the facts that can be reasonably expected to contribute to the soundness of estimates of all future costs and to the validity of determinations of costs already incurred.

**Claim**, as used herein, means a contract dispute.

**Classified information**. Official information or material that requires protection in the interest of national security and is classified for such purpose by appropriate classification authority in accordance with the provisions of Executive Orders 12958 "Classified National Security Information," 12968 "Access to Classified Information," and 12829 "National Industrial Security Program."

**Commercial component** means any component that is a commercial item. The term component means any item supplied to the Federal government as part of an end item or of another component. See **Commercial Item.** 

**Commercial item** can mean any of the following: [Note: For purposes of this document, the term "commercial item" is interchangeable with the terms "commercially available," "commercial component(s)," "commercial product(s)," and "commercial off-the-shelf (COTS)"]:

- (A) Any item, other than real property, that is of a type customarily used by the general public or by nongovernmental entities for purposes other than governmental purposes and that has been sold, leased, licensed to the general public; or has been offered for sale, lease, or license to the general public.
- (B) Any item that evolved from an item described in paragraph (A) through advances in technology or performance and that is not yet available in the commercial marketplace, but will be available in the commercial marketplace in time to satisfy the delivery requirements under a government solicitation.

- (C) Any item that would satisfy a criterion expressed in paragraphs (A) (B) of this definition, but for-(i) modifications of a type customarily available in the commercial marketplace; or (ii) modifications of a type not customarily available in the commercial marketplace made to meet Federal government requirements.
- (D) Any combination of items meeting the requirements of paragraphs (A), (B), (C), or (E) of this definition that are of a type customarily combined and sold in combination to the general public.
- (E) Installation services, maintenance services, repair services, training services, and other services if such services are procured for support of an item referred to in paragraph (A), (B), (C), or (D) of this definition, and if the source of such services--(i) offers such services to the general public and the Federal government contemporaneously and under similar terms and conditions; and (ii) offers to use the same work force for providing the Federal government with such services as the source uses for providing such services to the general public.
- (F) Services of a type offered and sold competitively in substantial quantities in the commercial marketplace based on established catalog or market prices for specific tasks performed under standards commercial terms and conditions. This does not include services that are sold based on hourly rates without an established catalog or market price for specific service performed.
- (G) Any item, combination of items, or service referred to in paragraphs (A) through (F), notwithstanding the fact that the item, combination of items, or service is transferred between or among separate divisions, subsidiaries, or affiliates of a contract; or
- (H) An item, determined by the procuring agency to have been developed exclusively at private expense and sold in substantial quantities, on a competitive basis, to multiple state and local governments.

**Commercial-off-the-shelf** is a product or service that has been developed for sale, lease or license to the general public and is currently available at a fair market value. See **Commercial Item.** 

**Commercial product** means a product in regular production that is sold in substantial quantities to the general public and/or industry at established catalog or market prices. See **Commercial Item.** 

**Commercially available** refers to products, commodities, equipment, material, or services available in existing commercial markets in which sources compete primarily on the basis of established catalog/market prices or for which specific costs/prices established within the industry have been determined to be fair and reasonable. See **Commercial Item**.

**Commonality** refers to the use of identical parts, components, subsystems or systems to achieve economies in development and manufacture.

**Communications**, when referring to contracting, means any oral or written communication between the FAA and an offeror that involves information essential for understanding and

evaluating an offeror's submittal(s), and/or determining the acceptability of an offeror's submittal(s).

**Computer resources support.** The facilities, hardware, system support software, software/hardware development and support tools (e.g. compilers, PROM burners), documentation, and personnel needed to operate and support embedded computer systems. These items represent the resources required for the operational support engineering functions and do not include administrative computer resources.

**Concept development** is the second stage in the CMTD process. This activity develops and evaluates promising concepts to determine which should undergo further development. Activities include modeling, simulation, and detailed analysis.

**Concept evaluation** is the third and final stage in the CMTD process. It confirms that a concept has great promise toward meeting the service needs of the agency and begins to determine operational and technical feasibility. Concept evaluation can include concept integration, evolution, or scalability. Representative activities include prototyping and field demonstration.

**Concept exploration** is the first stage in the CMTD process. The objective is to describe promising concepts with sufficient definition to begin development of a concept of operations and to plan follow-on activities. Outputs are promising and feasible concepts that warrant further development.

Concept maturity and technology development (CMTD). The CMTD process governs activities directed toward the production of useful materials, devices, systems, and methods, as well as advance the maturity of new concepts. Typical activities include concept feasibility studies, technical analysis, prototype demonstrations, and operational assessments that identify, develop, and evaluate opportunities for improving the delivery of NAS services. These efforts reduce risk, define requirements, demonstrate operational requirements, inform concept and requirements definition activities, and generate information required to support agency investment decisions and product lifecycle management.

**Configuration.** (1) The performance, functional, and physical attributes of an existing or planned product, or a combination of products; or (2) one of a series of sequentially created variations of a product.

**Configuration audit.** Product configuration verification accomplished by inspecting documents, products, and records; and reviewing procedures, processes, and systems of operation to verify that the product has achieved its required attributes (performance requirements and functional constraints), and the product's design is accurately documented. Sometimes divided into separate functional and physical configuration audits.

Configuration change management. (1) A systematic process which ensures that changes to released configuration documentation are properly identified, documented, evaluated for impact, approved by an appropriate level of authority, incorporated, and verified. (2) The configuration management activity concerning the systematic proposal justification, evaluation, coordination and disposition of proposed changes, and the implementation of all approved and released changes into (a)

the applicable configurations of a product, (b) associated product information, and (c) supporting and interfacing products and their associated product information.

**Configuration documentation**. Technical documentation, the primary purpose of which is to identify and define a product's performance, functional, and physical attributes.

Configuration identification. (1) The systematic process of selecting the product attributes, organizing associated information about the attributes, and stating the attributes; (2) unique identifiers for a product and its configuration documents; or (3) the configuration management activity which encompasses selecting configuration documents; assigning and applying unique identifiers to a product, its components, and associated documents; and maintaining document revision relationships to product configurations.

**Configuration management**. A management process for establishing and maintaining consistency of a product's performance, functional, and physical attributers with its requirements, design, and operational information throughout its life.

**Configuration status accounting.** The configuration management activity concerning capture and storage of, and access to, configuration information needed to manage products and product information effectively.

**Configuration verification.** The action verifying that the product has achieved its required attributes (performance requirements and functional constraints) and the product's design is accurately documented.

**Contract** is a legal instrument used to acquire products and services for the direct benefit or use by the FAA.

**Contract.** As used herein denotes the document (for example, contract, memorandum of agreement or understanding, purchase order) used to implement an agreement between a customer (buyer) and a seller (supplier).

Contract dispute as used herein, means a written request seeking as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to the contract. A claim arising under a contract unlike a claim relating to that contract, is a claim that can be resolved under a contract clause that provides for the relief sought by the claimant. The term does not include a request for payment of an invoice, voucher, or similar routine payments expressly authorized under the terms of the contract, which have not been rejected by the contracting officer. The term includes a termination for convenience settlement proposal and request for equitable adjustment, but does not include cost proposals seeking definitization of a letter contract or other undefinitized contract action.

**Contractor.** The party(ies) receiving a direct procurement contract from the FAA and who is responsible for performance of the contract requirements.

**Controversy or concern.** A material disagreement between the FAA and an offeror that could result in a protest.

**Core policy** refers to the official governing policy of the Acquisition Management System. It consists of all Sections and Appendices A-E of this document. All other acquisition information not contained within this policy document is in the form of guidance, processes, references, and other acquisition aids, used by the lifecycle management workforce with discretion and in a manner that makes sense for individual programs. All of this information, including core policy, is considered to be the entire Acquisition Management System. This information may be found within the FAA Acquisition System Toolset on the Internet.

**Cost** is the contractor's expenses of contract performance, either estimated or actual.

**Cost or pricing data.** See "Certified Cost or Pricing Data" and "Non-certified Cost or Pricing Data".

**Critical operational issue.** A key operational effectiveness or suitability issue that must be examined in operational test and evaluation to determine a product's capability to perform its mission.

**Critical performance requirements.** Primary requirements of a solution representing attributes or characteristics considered essential to meeting the mission need that the investment program is seeking to satisfy. Critical performance requirements and associated values are specified in the program requirements document.

**Customer.** External users of FAA products or services, such as airlines and the flying public. See **User.** 

**Data.** Recorded information of any nature (including administrative, managerial, financial, and technical), regardless of medium or characteristics.

**Demand,** as used in the context of service analysis, is the current or projected demand for FAA products, services, and capacity, based on input from diverse sources such as the aviation community, enterprise architecture, long-range planners, and operators and maintainers of the NAS and other FAA support systems.

**Design to cost** is a concept that establishes cost elements as management goals to best balance between lifecycle cost, acceptable performance, and schedule. Under this concept, cost is a design constraint during the design, development, and production phases, and a management discipline throughout the system lifecycle.

**Direct-work maintenance staffing**. The direct person-hours required to operate, maintain, and support a product for the duration of its lifecycle.

**Disapproval.** Conclusion by the appropriate authority that an item submitted for approval is either not complete or is not suitable or its intended use.

**Discriminating criteria/key discriminators,** used in procurement context, are those factors expected to be especially important, significant, and critical in the ultimate source selection decision.

**Dispute** as used herein, means a Contract Dispute or Claim.

**Dispute resolution officer** is a licensed legal practitioner who is a member of the Office of Dispute Resolution, and who has authority to conduct proceedings, which, if agreed to by the parties and concurred in by the FAA Administrator, result in binding decisions on the parties.

**Dominant business** is a controlling or major influence in a market in which a number of businesses are primarily engaged. Factors such as business volume; number of employees; financial resources; competitiveness; ownership or control of materials, processes, patents, and license agreements; facilities; sales territory; and nature of the business must be considered.

**Economically disadvantaged individuals** means disadvantaged individuals whose ability to compete in the free enterprise system is impaired due to diminished opportunities to obtain capital and credit as compared to others in the same line of business who are not disadvantaged.

**End product.** A system, service, facility, or operational change that is intended for delivery to a customer or end user.

Enterprise architecture products include the operational view family (business rule) and systems view family (engineering). Operational view family components represent a set of graphical and textual products that describe the changes in tasks and activities, operational elements, and information exchanges required to accomplish NAS service delivery or ATO business processes. The business process and application views present this information in the FEAF with the data architecture providing the terms used to describe information exchanges between processes. System view family components represent a set of graphical and textual products that describe systems and interfaces that directly or indirectly support, communicate, or facilitate NAS service delivery or ATO business processes. In the FEAF, interfaces between applications are described in the application view. Also in the FEAF, there is a logical description of systems, but not a physical or geographic description in the enterprise architecture.

**Evolutionary product development** is the process of establishing a product designed to evolve over time, as opposed to the need for wholesale replacement, to satisfy requirements. The objective is to accommodate rapid insertion of new technology and upgrades, rather than invest in entirely new products.

**FAA disputes resolution system** is a process established within the FAA for resolving protests of FAA screening information request and contract awards, as well as contract disputes.

**FAA Enterprise Architecture** (referred to as the enterprise architecture throughout AMS) defines the operational and technical framework for all capital assets of the FAA. It describes the agency's current and target architectures, as well as the transition strategy for moving from the current to the target

architecture. The enterprise architecture has two segments: the NAS architecture and the non-NAS architecture. The non-NAS segment uses the Federal Enterprise Architecture Framework (FEAF). The operational view is split between the business process, application, and data views. The systems view in the FEAF is specified in the technical view.

**FAA Office of Dispute Resolution for Acquisition** is an independent organization within the FAA, reporting to the FAA Chief Counsel, which is staffed with an appropriate number of dispute resolution officers.

**Fee** is compensation paid to a consultant for professional services rendered.

**Firm,** as defined for architect-engineering services, is any individual, partnership, corporation, association, or other legal entity permitted by law to practice the professions of architecture or engineering.

**Firmware.** The combination of a hardware device and computer instructions or computer data that reside as read-only software "burned into" the hardware device; various types of firmware include devices whose software code is erasable/re-programmable to some degree.

**First-level technical support.** This work comprises maintenance of the National Airspace System infrastructure and includes certifying equipment and performing periodic maintenance, restoration, troubleshooting, and corrective activities.

**Functional baseline** is the initially approved documentation describing a product's functional, interoperability, and interface characteristics, and the verification required to demonstrate the achievement of those characteristics.

Generic processes. Flowcharts and supporting information, including descriptions, approving officials, references, templates, and other aids that describe each event of a phase of the lifecycle management process. Generic processes are provided to service organizations for guidance to assist in the complex planning, product development, procurement, production, testing, delivery, and implementation activities of this important phase of the lifecycle management process. Generic processes are an integral part of FAST.

**Hardware products.** Made of material and their components (mechanical, electrical, electronic, hydraulic, pneumatic). Computer software and technical documentation are excluded.

**Historically black colleges and universities.** Institutions determined by the U.S. Secretary of Education to meet the requirements of 34 CFR 608.2 and listed therein.

**Human factors** are a multi-disciplinary effort to generate and apply human performance information to acquire safe, efficient, and effective operational systems.

**Implementation strategy and planning** is the detailed planning document for all aspects of program implementation. It integrates the planning requirements of several previous FAA planning documents including the program master plan, the integrated logistics support plan, the test and evaluation master

plan, the program implementation plan, the human factors plan, and the procurement plan. It is recorded in the implementation strategy and planning document.

**In-service decision** is the decision to accept a product or service for operational use during the solution implementation phase of the lifecycle management process. This decision allows deployment activities, such as installing products at each site and certifying them for operational use, to start.

**In-service management phase** of the lifecycle management process, is that period of time after a product or service begins operational use, and continues for as long as the product is in use.

**Indian** means any person who is a member of any Indian tribe, band, group, pueblo, or community which is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs in accordance with 25 U.S.C. 1452(c) and any "Native" as defined in the Alaska Native Claims Settlement Act (43 U.S.C. 1601).

**Indian organization** means any governing body of any Indian tribe or entity established or recognized by the governing body of an Indian tribe for the purposes of 25 U.S.C., chapter 17.

**Indian-owned economic enterprise** means any Indian-owned (as determined by the Secretary of the Interior) commercial, industrial, or business activity established or organized for the purpose of profit, provided that Indian ownership shall constitute not less than 51 percent of the enterprise.

**Indian tribe** means any Indian tribe, band, group, pueblo, or community, including native villages and native groups (including corporations organized by Kenai, Juneau, Sitka and Kodiak) as defined in the Alaska Native Claims Settlement Act, which is recognized by the Federal Government as eligible for services from BIA in accordance with 25 U.S.C. 1452 (c).

**Integrated logistics support** is the functional discipline that plans, establishes, and maintains a full lifecycle support system for FAA products and services. This applies to the sustainment and disposal of fielded products and services as well as new investment programs. The objective is the required level of service to the end user at optimal lifecycle cost to the FAA. The logistics manager is the service-team member who plans, establishes, and maintains an integrated product support package for the lifecycle of FAA products and services.

**Interagency agreement** is a written agreement between the FAA and another Federal agency where the FAA agrees to receive from, or exchange supplies or services with, the other agency, and FAA funds are obligated.

**Interested party.** An interested party is one who:

- (1) Prior to the close of a solicitation, is an actual or prospective participant in the procurement, excluding prospective subcontractors; or
- (2) After the close of a solicitation, is an actual participant who would be next in line for award under the solicitations scheme if the protest is successful. An actual participant who is not in line for award under the solicitations scheme is ineligible to protest unless that party's

complaint alleges specific improper actions or inactions by the agency that caused the party to be other than in line for award. Proposed subcontractors are not eligible to protest.

Where a contract has been awarded prior to the filing of a protest, the awardee may be considered an interested party for purposes of participating in the protest proceedings.

**Interface.** The performance, functional, and physical attributes required to exist at a common boundary.

**Interface control documentation.** Interface control drawing or other documentation that depicts physical, functional, and test interface characteristics between two or more related or co-functioning items.

**Interim payment** is a form of contract financing for cost reimbursement contracts where a contractor is paid periodically during the course of a contract for allowable costs it incurs in the performance of the contract. As interim payments are issued during the course of a contract, they do not include the final payment issued after contract completion.

**Intra-agency agreement** is a written agreement between the FAA and Office of the Secretary of Transportation or another Department of Transportation operating administration where the requesting organization agrees to provide or exchange supplies or services with the FAA, and FAA funds are obligated.

**Investment analysis** of the lifecycle management process is conducted to determine the most advantageous solution to an approved mission need. It involves: (1) a market search to determine industry capability, (2) analysis of various alternative approaches for satisfying requirements, (3) and affordability assessment to determine what the FAA can afford, and (4) detailed planning for the alternative selected for implementation.

**Investment increment.** A discrete activity or investment program that may provide individual benefits and or combine with other investment increments to achieve the benefits of an operational capability.

**Investment program.** A sponsored, fully funded effort initiated at the final investment decision of the lifecycle management process by the investment decision authority in response to a priority agency need. The goal of an investment program is to field a new capability that satisfies performance, cost, and schedule targets in the acquisition program baseline and benefit targets in the business case analysis report. Typically an investment program is a separate budgeted line-item and may have multiple procurements and several projects, all managed within the single program.

**Joint Resources Council** is the FAA body responsible for making corporate level decisions.

**Lifecycle.** The entire spectrum of activity for an FAA capital asset starting with the identification of need and extending through design, development, production or construction, deployment, operational use, sustaining support, and retirement and disposal.

**Lifecycle management process.** A depiction of the series of phases and decision points that comprise the lifecycle of FAA products and services.

**Lifecycle acquisition management system** is a fully coordinated set of policies, processes, and computer-based acquisition tools that guide the lifecycle management workforce through the lifecycle management process from the determination of mission needs to the procurement and lifecycle management of products and services that satisfy those needs.

**Lifecycle cost** is the total cost to the FAA of acquiring, operating, maintaining, supporting, and disposal of systems or services over their useful life. Lifecycle cost includes total investment costs, development costs, and operational costs and includes all appropriations, RE&D, F&E, and OPS.

Line of business. An informal term used to characterize the major organizations of the FAA, headed by the Chief Operating Officer (ATO) or the Assistant or Associate Administrator (non- ATO), having major roles and responsibilities in the lifecycle Acquisition Management System (FAA staff offices led by an Assistant Administrator are considered a line of business for purposes of AMS). They are: Air Traffic Organization; Aviation Safety; Airports; Commercial Space Transportation; Security and Hazardous Materials Safety; Finance and Management; NextGen and Operations Planning; Policy, International, Affairs and Environment; Human Resources; Civil Rights; Government and Industry Affairs; and Communications. See Appendix A for line of business roles and responsibilities.

**Maintenance planning**. The process is conducted to determine, evolve, and establish hardware and software maintenance concepts and requirements for the lifecycle of a product.

**Maintenance support facility**. The permanent or semi-permanent real property assets required to support a product. Maintenance support facility management includes conducting studies to define types of facilities or facility improvements, locations, space needs, environmental requirements, real estate requirements and equipment.

**Market survey** is used in two different contexts in AMS. In terms of the procurement and contracting process, it refers to any method used to survey industry to obtain information and comments and to determine competition, capabilities, and estimate costs. In terms of the lifecycle management process, market surveys are an integral part of investment analysis. After initial requirements are established, market surveys are used as a basis for identifying all potential material and nonmaterial solutions to mission need.

**Memorandum of agreement (MOA)** is a written document executed by the parties, which creates a legally binding commitment and may require the obligation of funds. However, when the FAA will acquire services, equipment, personnel, or facilities from a contractor for the direct benefit or use of the FAA, a procurement contract should be used.

**Memorandum of understanding (MOU)** is a written document executed by the parties which establishes policies or procedures of mutual concern. It does not require either party to obligate funds and does not create a legally binding commitment.

**Metrics** are measurements taken over time that monitor, assess, and communicate vital information about the results of a program or activity. Metrics are generally quantitative, but can be qualitative.

**Minority Educational Institutions.** Institutions verified by the U.S. Secretary of Education to meet the criteria set forth in 34 CFR 637.4. Also includes Hispanic-serving institutions as defined by 20 U.S.C. 1059c(b)(1).

**Mission analysis** is that part of the lifecycle management process during which continuous analytical activity is performed to evaluate the capacity of FAA assets to satisfy existing and emerging demands for services. It is conducted within the lines of business organizations of the FAA.

**Multi-year contracts** are contracts covering more than one year but not in excess of five years of requirements. Total contract quantities and annual quantities are planned for a particular level and type of funding as displayed in a current five year development plan. Each program year is annually budgeted and funded and, at the time of award, funds need only to have been appropriated for the first year. The contractor is protected against loss resulting from cancellation by contract provisions, which allows reimbursement of costs included in the cancellation ceiling.

**Multi-year funding** refers to Congressional authorization and appropriation covering more than one fiscal year. The term should not be confused with two-year or three-year funds which cover only one fiscal year's requirement but permit the Executive Branch more than one year to obligate the funds.

**NAS enterprise architecture** is a NAS-wide enterprise repository of views which describe the current (as-is), mid-term, and far-term (to-be) perspectives of the NAS architecture as well as the strategic planning roadmaps which depict the possible evolution path from the "as is" to the "to be".

**NAS technical documentation.** Any set of documents that describe the technical requirements of the National Airspace System.

**Neutral** means an impartial third party, who serves as a mediator, fact finder, or arbitrator, or otherwise functions to assist the parties to resolve the issues in controversy. A neutral person may be a permanent or temporary officer or employee of the federal government or any other individual who is acceptable to the parties. A neutral person shall have no official, financial, or personal conflict of interest with respect to the issues in controversy, unless such interest is fully disclosed in writing to all parties and all parties agree that the neutral person may serve.

**NextGen Implementation Plan** is an executive-level outline of current activities and program commitments necessary to implement new operational capabilities. The plan is published annually to reflect prior-year accomplishments and new commitments.

**No-year funding** refers to Congressional funding that does not require obligation in any specific year or years.

**Non-certified cost or pricing data** is any type of information that is not required to be certified, that is necessary to determine price reasonableness or cost realism. This includes pricing, sales, or cost

information, and cost or pricing data for which certification is determined inapplicable after submission.

**Non-developmental item** (NDI) is an item that has been previously developed for use by federal, state, local, or a foreign government and for which no further development is required.

**Non-materiel solution.** A solution to an FAA capability shortfall identified during service analysis or investment analysis that is operationally acceptable to users and can be implemented within approved budgets and baselines. Non-materiel solutions typically involve regulatory change, process re-engineering, training, procedural change, or transfer of operational assets between sites.

**Nonrecurring costs** are those production costs which are generally incurred on a one time basis and include such costs as plant or equipment relocation, plant rearrangement, special tooling and special test equipment, pre-production engineering, initial spoilage and rework, and specialized workforce training.

**Operational baseline.** The approved technical documentation representing installed operational hardware and software.

**Operational capability.** A grouping of operational improvements and operational sustainments to achieve specified service outcomes and benefits.

**Operational improvement.** A change to operational assets to improve one or more NAS services.

**Operational readiness** refers to the state of a fielded new system in the NAS. This state is achieved after the system is tested by the FAA at a field test site where it is demonstrated that local site personnel have the ability to fully operate and maintain the new system.

**Operational suitability.** The capability of a product to be satisfactorily integrated and employed for field use, considering such factors as compatibility, reliability, human performance factors, maintenance and logistics support, safety, and training. The term also refers to the actual degree to which the product satisfies these parameters.

**Operational sustainment.** A discrete activity to maintain one or more current NAS services.

**Other transaction.** Transactions, as referenced in Public Law 104-264, October 9, 1996, which do not fall into the category of procurement contracts, grants, or cooperative agreements.

**Owners.** Within context of the Air Traffic Organization, owners of the FAA are the President, Congress, flying public, and American taxpayers.

**Packaging, handling, storage and transportation**. The resources, processes, procedures, design considerations, and methods to ensure that all subsystem, equipment, and support items are preserved, packaged, handled, and transported properly. Included are environmental considerations and equipment preservation requirements for short and long term storage and transportability.

**Performance.** A quantitative measure characterizing a physical or functional attribute relating to the execution of an operation or function. Performance attributes include quantity (how many or how much), quality (how well), coverage (how much area, how far), timeliness (how responsive, how frequent), and readiness (availability, mission/operational readiness). Performance is an attribute for all systems, people, products and processes including those for development, production, verification, deployment, operations, support, training and disposal. Thus, supportability parameters, manufacturing process variability, reliability and so forth, are all performance measures.

**Personnel security.** The standards and procedures utilized to determine and document that the employment or retention in employment of an individual will promote the efficiency of the service and is clearly consistent with the interests of the national security.

**Portfolio manager.** The individual responsible for management and oversight of an investment portfolio designed to achieve specific operational capabilities.

**Prescreening.** The evaluation of case files for impacts on safety, ATC services, and other intangible benefits, as well as cost/benefits implications, to determine if the proposed change should be implemented.

**Price** equals cost plus any fee or profit involved in the procurement of a product or service.

**Primary engineer or principal consultant** is a firm which is held responsible for the overall performance of the services, including that which is accomplished by others under separate or special service contracts.

**Procurement strategy meeting** is a meeting of organizations with vested interests in the contemplated procurement. The purpose of this meeting is to reach a consensus on the planned course of the acquisition and to obtain the necessary approvals to proceed.

**Procurement team** means the Contracting Officer, legal counsel, program officials and other supporting staff.

**Program requirements document** establishes the operational framework and requirements of the line of business with a mission need. It translates mission need into top-level performance, supportability, and benefit requirements that should be satisfied by the fielded capability. It is prepared in the concept and requirements definition phase of the lifecycle management process.

**Product baseline** is the initially approved documentation describing all of the necessary functional and physical characteristics of the configuration item and the selected functional and physical characteristics designated for production acceptance testing and tests necessary for support of the configuration item. In addition to this documentation, the product baseline of a configuration item may consist of the actual equipment and software.

**Product team or service team.** A team with a mission, resources, leader, and cross-functional membership, which executes an element of a service organization's mission.

**Program decision-making.** In general, resource decision-making in the lifecycle management process is at the corporate level and program decision-making is within service organization.

**Protest** is a written, timely objection submitted by a protester to an FAA screening information request or contract award.

**Protester** is a prospective offeror whose direct economic interest would be affected by the award or failure to award an FAA contract, or an actual offeror with a reasonable chance to receive award of an FAA contract.

**Rational basis.** Documented facts that are: (1) objective and verifiable (not unreasonable, capricious or arbitrary), (2) understandable to a reasonable person, and (3) supported by substantial evidence that results in a logical conclusion. The AMS is a tool used to help formulate a rational basis.

## **Real property** is defined as:

- (1) Any interest in land, together with the improvements, structures, and fixtures located thereon (including prefabricated movable structures, such as Butler-type storage warehouses and Quonset huts, and house trailers with or without undercarriages), and appurtenances thereto, under the control of any Federal agency, except
  - (a) The public domain;
  - (b) Lands reserved or dedicated for national forest or national park purposes;
  - (c) Minerals in lands or portions of lands withdrawn or reserved from the public domain that the Secretary of the Interior determines are suitable for disposition under the public land mining and mineral leasing laws;
  - (d) Lands withdrawn or reserved from the public domain but not including lands or portions of lands so withdrawn or reserved that the Secretary of the Interior, with the concurrence of the Administrator of General Services, determines are not suitable for return to the public domain for disposition under the general public land laws because such lands are substantially changed in character by improvements or otherwise; and
  - (e) Crops when designated by such agency for disposition by severance and removal from the land.
- (2) Improvements of any kind, structures, and fixtures under the control of any Federal agency when designated by such agency for disposition without the underlying land (including such as may be located on the public domain, on lands withdrawn or reserved from the public domain, on lands reserved or dedicated for national forest or national park purposes, or on lands that are not owned by the United States) excluding, however, prefabricated movable structures, such as Butler-type storage warehouses and Quonset huts, and house trailers (with or without undercarriages).

(3) Standing timber and embedded gravel, sand, or stone under the control of any Federal agency, whether designated by such agency for disposition with the land or by severance and removal from the land, excluding timber felled, and gravel, sand, or stone excavated by or for the Government prior to disposition.

**Record drawings** are drawings submitted by a contractor or subcontractor at any tier to show the construction of a particular structure or work as actually completed under the contract.

**Recurring costs** are production costs that vary with the quantity being produced, such as labor and materials.

**Release.** The designation by the originating activity that a document or software version is approved by an appropriate authority and is subject to configuration change management procedures.

**Requirements.** Conditions or capabilities that must be met or exceeded by a product or component to satisfy agency needs. Requirements form the basis for a contract, standard, specification, or other formally imposed document.

**Research, engineering and development (RE&D).** The RE&D process governs selection and execution of the RE&D portfolio. This portfolio includes systematic studies to gain knowledge or understanding of concepts, products, or procedures that could potentially benefit the aviation community with or without specific application or means by which a specific need may be met such as research related to materials and human factors. These activities inform the NAS enterprise architecture and CMTD activities, but do not lead directly to concept and requirements definition.

**Resources.** As it applies to contractor personnel security refers to FAA resources including a physical plant, information databases including hardware and software, as well as manual records pertaining to agency mission or personnel.

**Screening** is the process of evaluating offeror submittals to determine either which offerors/products are qualified to meet a specific type of supply or service, which offerors are most likely to receive award, or which offerors provide the best value to the FAA.

**Screening decision** is the narrowing of the number of offerors participating in the source selection process to only those offerors most likely to receive award.

**Screening information request** is any request made by the FAA for documentation, information, or offer for the purpose of screening to determine which offeror provides the best value solution for a particular procurement.

**Second-level engineering support.** This work comprises engineering support of the National Airspace System infrastructure and includes defining system performance standards, developing and publishing procedures, designing system improvements, and providing support to first-level technical support personnel.

**Selection decision** is the determination to make an award by the source selection official to the offeror providing the best value to the FAA.

**Service-disabled veteran-owned small business** is a small business concern that is 51% owned and controlled by a service disabled veteran(s).

**Service organization.** A service organization is any organization that manages investment resources regardless of appropriation to deliver services. It may be a service unit, program office, or directorate, and may be engaged in air traffic services, safety, security, regulation, certification, operations, commercial space transportation, airport development, or administrative functions.

**Simplified purchases** are those products or services of any nature that are smaller in dollar value, less complex, shorter term, routine, or are commercially available and are generally purchased on a fixed price basis.

**Single-source contracting** is to award a contract, without competition, to a single supplier of products or services.

**Small business** is a business, including its affiliates, that is independently owned and operated and not dominant in producing the products or performing the services being purchased, and one that qualifies as a small business under the federal government's criteria and North American Industry System Classification Codes size standards.

**Small business set-aside** is the reservation of an acquisition exclusively for participation by small businesses.

Small disadvantaged business means a small business concern that is at least 51 percent unconditionally owned by one or more individuals who are both socially and economically disadvantaged, or a publicly owned business that has at least 51 percent of its stock unconditionally owned by one or more socially and economically disadvantaged individuals and that has its management and daily business controlled by one or more such individuals. This term also means a small business concern that is at least 51 percent unconditionally owned by an economically disadvantaged Indian tribe or Native Hawaiian Organization, or a publicly owned business having at least 51 percent of its stock unconditionally owned by one of these entities which has its management and daily business controlled by members of an economically disadvantaged Indian tribe or Native Hawaiian Organization. The contractor shall presume that socially and economically disadvantaged individuals include Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans, Subcontinent Asian Americans, and other minorities or any other individual found to be disadvantaged by the FAA. The contractor shall presume that socially and economically disadvantaged entities also include Indian tribes and Native Hawaiian Organizations.

**Small socially and economically disadvantaged business** means a small business concern that is at least 51 percent unconditionally owned by one or more individuals who are both socially and economically disadvantaged, or a publicly owned business that has at least 51 percent of its stock unconditionally owned by one or more socially and economically disadvantaged individuals and that

has its management and daily business controlled by one or more such individuals. This term also means a small business concern that is at least 51 percent unconditionally owned by an economically disadvantaged Indian tribe or Native Hawaiian Organization, or a publicly owned business having at least 51 percent of its stock unconditionally owned by one of these entities which has its management and daily business controlled by members of an economically disadvantaged Indian tribe or Native Hawaiian Organization. The contractor shall presume that socially and economically disadvantaged individuals include Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans, Subcontinent Asian Americans, and other minorities or any other individual found to be disadvantaged by the FAA. The contractor shall presume that socially and economically disadvantaged entities also include Indian tribes and Native Hawaiian Organizations.

**Socially disadvantaged individuals** - individuals who have been subjected to racial or ethnic prejudice or cultural bias because of their identity as a member of a group without regard to their qualities as individuals.

**Solution implementation** is the phase of the lifecycle management process that begins after the investment decision authority selects a solution and establishes an investment program. It ends when the new capability goes into service. This phase is led by the service organization assigned by the IDA at the investment decision.

**Solution providers.** An organization (e.g., service organization or a regional office implementing a construction program) that has the responsibility for providing assets to satisfy National Airspace requirements.

**Specification.** A document that explicitly states essential technical attributes/requirements for product and procedures to determine that the product's performance meets its requirements/attributes.

**Standardization** is the practice of acquiring parts, components, subsystems, or systems with common design or functional characteristics to obtain economies in ownership costs.

**Strategic sourcing.** The collaborative and structured process of critically analyzing an organization's spending and using this information to make business decisions about acquiring products and services more effectively and efficiently.

**Supply,** as used in the context of mission analysis, is the existing or projected supply of services to its customers, based on information from field organizations that operate and maintain the NAS, from the aviation community, and from the enterprise architecture.

**Supply support**. All management actions, procedures, and techniques used to determine requirements that acquire, catalog, track, receive, store, transfer, issue, and dispose of items of supply. This includes provisioning for initial support, maintaining asset visibility for financial accountability, and replenishing spares.

**Supportability.** The degree to which product design and planned logistics resources meet product use requirements.

**Support equipment.** All equipment (mobile or fixed) required to support maintenance of a product. It includes associated multi-use end items, ground-handling and maintenance equipment, tools, metrology and calibration equipment, test equipment, and automatic test equipment. It includes the procurement of integrated logistics support necessary to maintain the support equipment itself. Operational engineering support systems and facilities are also integral parts of the lifecycle support equipment.

**Sustainment.** Those activities associated with keeping fielded products operational and maintained. Also applies to the planning, programming and budgeting for fielded products, referred to as sustainment funding.

**Technical data**. Recorded information regardless of form or character (such as manuals, drawings and operational test procedures) of a scientific or technical nature required to operate and maintain a product over its lifecycle. While computer programs and related software are not technical data, documentation of these programs and related software are technical data. Also excluded is financial data or other information related to contract administration.

**Technical leveling** is the act of helping an offeror to bring its proposal/offer up to the level of other proposals/offers through successive rounds of communication, such as by pointing out weaknesses resulting from the offeror's lack of diligence, competence, or inventiveness in preparing his proposal.

**Technical transfusion** is the FAA's disclosure of technical information from one submittal that results in the improvement of another submittal.

**Technical opportunity.** A technological opportunity exists when a product or capability not currently used in the NAS has the potential to enable the FAA to perform its mission more safely, efficiently or effectively.

**Termination for convenience** is a procedure that may apply to any FAA contract, including multiyear contracts. As contrasted with cancellation, termination can be effected at any time during the life of the contract (cancellation is effected between fiscal years) and can be for the total quantity or a partial quantity (whereas cancellation must be for all subsequent fiscal year quantities).

**Termination liability** is the maximum cost the FAA would incur if a contract is terminated. In the case of a multi-year contract terminated before completion of the current fiscal year's deliveries, termination liability would include an amount for both current year termination charges and out year cancellation charges.

**Termination liability funding** refers to obligating contract funds to cover contractor expenditures plus termination liability, but not the total cost of the completed end items.

<u>Test and Evaluation Master Plan (TEMP)</u> is the primary test management document for new initiative investment programs throughout their lifecycle. It describes the test strategy and the scope of

the test program. It also documents the test and evaluation methodologies that will be used to assess program requirements including safety hazard controls/mitigations and security risks.

Total estimated potential value. The sum of the initial award, unexercised options, the value of any indefinite delivery/indefinite quantity (IDIQ) contract line items (CLINs), estimates for unpriced CLINs, such as preplanned product improvements, estimated value of partially priced items, and any other items the Contracting Officer deems relevant to establishing potential total contract value. The potential contract value should exclude anticipated change orders, pre- planned product improvements which are not established as CLINs, and any other anticipated actions not included in the written contract. Where duplicative or alternative options are established (i.e., if option 1 is exercised, option 2 will not be exercised) the Contracting Officer should include only the value which reflects the highest priced option. For incentive contracts, the maximum liability of the Government should be included in the potential contract value. For IDIQ contracts, the total contract value is the stated maximum amount the total of issued delivery orders cannot exceed.

**Training, training support, and personnel skills**. The analysis, design, development, implementation, and evaluation of training requirements to operate and maintain the product. This includes: conducting needs analyses; job and task analyses; delivering individual and team training; resident and nonresident training; on-the-job training; job aids; and logistic support planning for training aids and training installations.

**Unauthorized commitment** is an agreement entered into by a representative of the FAA who does not have the authority to obligate the FAA to spend appropriated funds.

**Unit.** One of a quantity of items (products, parts, etc.)

**User.** Internal FAA user of a product or service, such as air traffic controllers or maintenance technicians.

**Validation.** Confirmation that an end product or end-product component will fulfill its intended purpose when placed in its intended environment. The methods employed to accomplish validation are applied to selected work products as well as to the end product and end-product components. Work products should be selected on the basis of which are the best predictors of how well the end product and end-product component will satisfy the intended purpose and user needs. Validation may address all aspects of an end product in any of its intended environments, such as operation, training, manufacturing, maintenance, or support services.

**Verification.** Confirmation that selected work products meet their specified requirements. This includes verification of the end product (system, service, facility, or operational change) and intermediate work products against all applicable requirements. Verification is inherently an incremental process since it occurs throughout the development of the end product and work products - beginning with initial requirements, progressing through subsequent changes, and culminating in verification of the completed end product.

**Version.** (1) One of several sequentially created configurations of a data product. (2) A supplementary identifier used to distinguish a changed body or set of computer-based data (software)

from the previous configuration with the same primary identifier. Version identifiers are usually associated with data (such as files, data bases and software) used by, or maintained in, computers.

**Very small business** is a business whose size is no greater than 50 percent of the numerical size standard applicable to the North American Industry System Classification Codes assigned to a contracting opportunity.

**Work product.** A work product in various forms represents, defines, or directs the end product (system, service, facility, or operational change). This can include concepts of operation, processes, plans/procedures, designs/descriptions, requirements/specifications, models/prototypes, contracts/invoices and other documents.

**Work breakdown structure.** A hierarchical decomposition of the work to be performed to accomplish an approved agency objective. It includes both internal and external work activities and each descending level represents an increasing definition of the work to be performed.

## Section Revised: - AMS Policy Appendix D.

**Acquisition Management Policy - (7/2015)** 

Appendix D: Acronyms Revised 7/2015

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| ADD   | Alt d' D' d D 1 d'  |
|-------|---|
| ADR   | Alternative Dispute Resolution                                    |
| AEB   | Acquisition Executive Board                                       |
| AIP   | Airport Improvement Program                                       |
| AMS   | Acquisition Management System                                     |
| AOPC  | Agency/Organization Program Coordinator                           |
| AP    | Approving Official  |
| ASAG  | Acquisition System Advisory Group                                 |
| BC    | Business Case   |
| CAS   | Cost Accounting Standards   |
| CAS   | Commercially Available Software (2nd definition for this acronym) |
| CCB   | Configuration Control Board                                       |
| CCD   | Configuration Control Decision                                    |
| CIB   | Card Issuing Bank   |
| CIP   | Capital Investment Plan   |
| CIT   | Capital Investment Team   |
| CM    | Configuration Management  |
| CMTD  | Concept Maturity and Technology Development                       |
| CO    | Contracting Officer   |
| COCO  | Chief of the Contracting Office                                   |
| COI   | Critical Operational Issue  |
| COTS  | Commercial Off The Shelf  |
| CPIC  | Capital Planning and Investment Control                           |
| DPA   | Delegation of Procurement Authority                               |
| DOT   | Department of Transportation                                      |
| DRO   | Dispute Resolution Officer  |
| EA    | Enterprise Architecture   |
| EIS   | Environmental Impact Statement                                    |
| EVM   | Earned Value Management   |
| F&E   | Facilities and Equipment  |
| FAA   | Federal Aviation Administration                                   |
| FAST  | FAA Acquisition System Toolset                                    |
| FISMA | Federal Information Security and Management Act                   |
| FONSI | Finding of No Significant Interest                                |
| FSS   | Federal Supply Schedule   |
| GFI   | Government Furnished Information                                  |
| GFP   | Government Furnished Property                                     |
| GSA   | General Services Administration                                   |
| IDA   | Investment Decision Authority                                     |
| ILS   | Integrated Logistics Support                                      |
|       |   |

| IOA    | Independent Operational Assessment                     |
|--------|--|
| IRT    | Integrated Requirements Team                           |
| ISM    | In-Service Manager                                     |
| ISR    | In-Service Review                                      |
| ISS    | Information System Security                            |
| JRC    | Joint Resources Council                                |
| LOB    | Line of Business                                       |
| MCC    | Merchant Category Codes                                |
| MOA    | Memorandum of Agreement                                |
| MOU    | Memorandum of Vigreenicht  Memorandum of Understanding |
| NAIC   | North American Industry Classification                 |
| NAS    | National Airspace System                               |
| NCP    | National Airspace System Change Proposal               |
| NDI    | Non-developmental Item                                 |
| NMB    | NextGen Management Board                               |
| ODR    | Office of Dispute Resolution                           |
| O&M    | Operations and Maintenance                             |
| OMB    | Office of Management and Budget                        |
| OPR    | Offices of Primary Responsibility                      |
| OC     | Operational Capability                                 |
| OCIP   | Operational Capability Integration Plan                |
| OI     | Operational Improvement                                |
| ORD    | Operational Requirements Document                      |
| OS     | Operational Sustainment                                |
| OSHA   | Occupational Safety and Health Administration          |
| OST    | Office of the Secretary of Transportation              |
| P3I    | Preplanned Product Improvement                         |
| PMO    | Program Management Office                              |
| PSM    | Procurement Strategy Meeting                           |
| PT     | Product Team   |
| QRO    | Quality Reliability Officer                            |
| QVL    | Qualified Vendor List                                  |
| RCCB   | Regional Configuration Control Board                   |
| RE&D   | Research, Engineering, and Development                 |
| RFO    | Request For Offer                                      |
| RMA    | Reliability, Maintainability, and Availability         |
| SB     | Small Business   |
| SDB    | Small Disadvantage Business                            |
| SDVOSB | Service-Disabled Veteran Owned Small Business          |
| SEDB   | Socially and Economically Disadvantaged Businesses     |
| SIC    | Standard Industrial Classification                     |
| SIR    | Screening Information Request                          |
| SSO    | Source Selection Official                              |

| T&E         | Test and Evaluation             |
|-------------|---------------------------------|
| <b>TEMP</b> | Test and Evaluation Master Plan |
| U.S.C.      | United States Code              |
| VSB         | Very Small Business             |