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1 Overview and Key Elements

1.1 Overview

1.1.1 Purpose Revised 10/2007

The Acquisition Management System (AMS) establishes policy and guidance for all aspects of lifecycle acquisition management for the Federal Aviation Administration (FAA). It defines how the FAA manages its resources - money / people / assets - to fulfill its mission. The objectives of the policy are to increase the quality, reduce the time, manage the risk, and minimize the cost of delivering safe and secure services to the aviation community and flying public. Acquisition management policy promotes these objectives through partnership among service providers and customers to ensure FAA plans, programs, and budgets address priority aviation needs.

1.1.2 Scope and Structure Revised 4/2013

Acquisition management policy is organized as follows:

- Section 1 summarizes AMS policy and defines key management elements;
- Section 2 defines phases and decision points of FAA's lifecycle management process;
- Section 3 is FAA's procurement policy;
- Section 4 defines policy for critical lifecycle management functions and disciplines;
- Section 5 defines FAA acquisition career management policy;
- Appendix A defines roles and responsibilities for key FAA organizations;
- Appendix B defines policy for AMS planning documents;
- Appendix C defines terms used in the policy;
- Appendix D is a glossary of acronyms; and
- Appendix E lists laws and executive branch policy applicable to FAA.

1.1.3 Legal Basis for the Policy Revised 1/2012

The FAA developed the Acquisition Management System in response to Section 348 of Public Law 104-50. The AMS supersedes the Major Acquisition Policies and Procedures of the Department of Transportation and all other acquisition and procurement statutes and regulations, including the Federal Acquisition Regulation. Contracts awarded prior to April 1, 1996, remain under the Federal Acquisition Regulation until bilateral modification brings them under the AMS. AMS policy takes precedence over all other FAA policy dealing with any aspect of lifecycle acquisition management and related disciplines. The AMS serves as the FAA's Capital Planning and Investment Control process.

1.1.4 Applicability Revised 4/2013

Acquisition management policy applies to all FAA organizations, all appropriations, and all investment programs. This includes all capital investments in the National Airspace System (NAS) and FAA administrative and mission support systems. The policy does not apply to the Airport Improvement Program, which provides grants to state and local entities as authorized under Title 49, United States Code, Chapter 471.

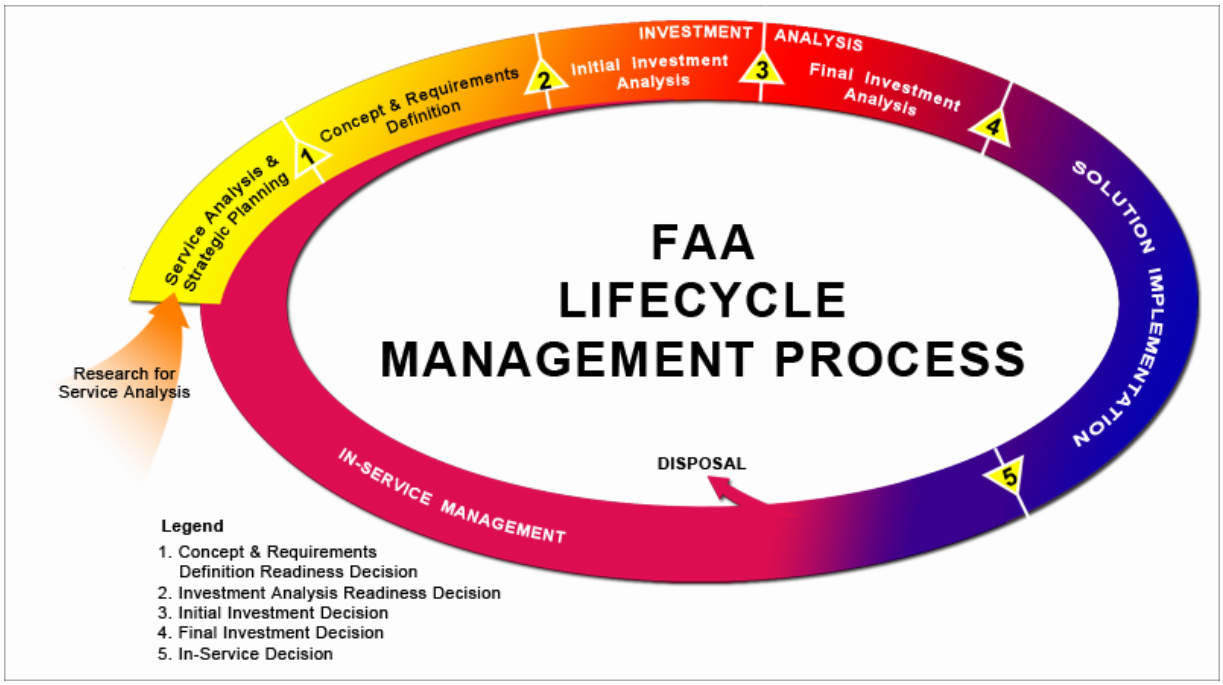
The FAA follows, as a matter of policy, certain Government-wide laws, regulations, and Executive agency requirements. Appendix E highlights many external requirements with which investment programs comply. Consult the Office of Chief Counsel about whether a particular law, regulation, or directive applies to acquisition management.

The FAA Acquisition Executive is assigned responsibility for acquisition management policy by the Administrator, and may approve waivers, deviations, or tailoring on a case-by-case basis.

1.1.5 FAA Lifecycle Management Process Revised 4/2013

The FAA executes its acquisition management policy by means of the lifecycle management process, which is organized into a series of phases and decision points as shown in Figure 1.1.5-1. The circular representation conveys the principle of seamless management and continuous improvement in service delivery over time. Application is flexible and may be tailored appropriately. A continuing dialog with and feedback from customers (e.g., commercial air carriers, general aviation, air transport industry, state and local airport authorities) and users (air traffic and technical operations) is maintained throughout the process. Detailed policy is in Section 2, Lifecycle Management Phases and Decision Points.

Figure 1.1.5-1 FAA Lifecycle Management Process



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 FAA strategic initiatives. 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.

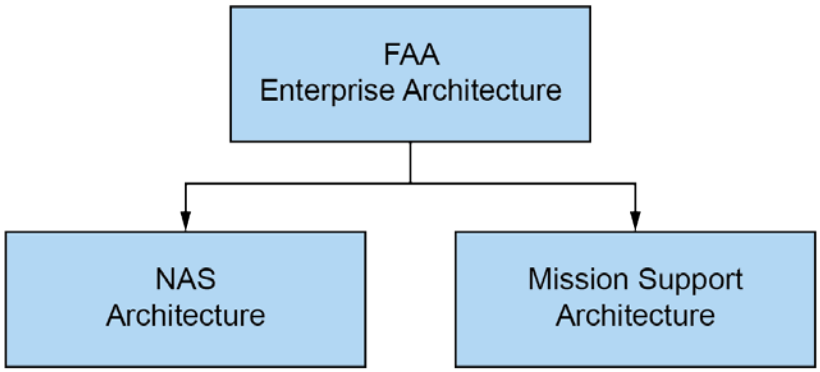
The FAA reports facility and equipment expenditures to Congress in the Capital Investment Plan; research, engineering, and development resource requirements in the National Aviation Research Plan; and operations funding requirements in the annual budget request to Congress.

1.2.2 FAA Enterprise Architecture Revised 4/2017

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 Mission Support 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 Mission Support 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.

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, Solution Delivery Service, Solution Strategy Division, Enterprise Architecture (EA) Branch administers the Mission Support 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 4/2017

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 (Mission Support). The enterprise architecture can be viewed as distinct portfolios segmented in different ways for specific purposes.

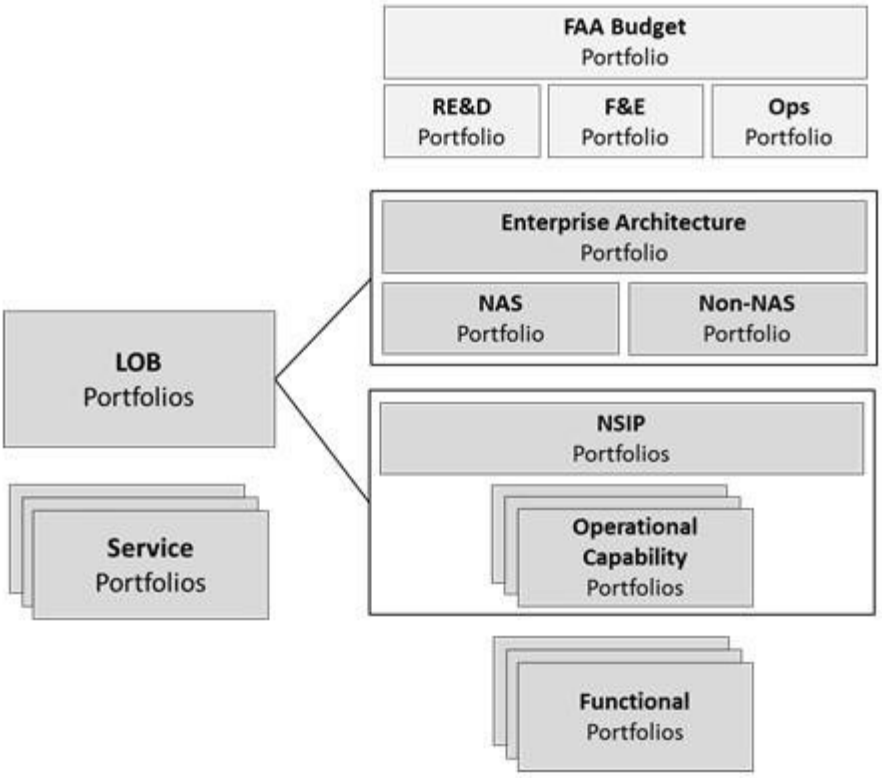
Operational capability portfolios are rational groupings of NAS investment programs proceeding through the AMS lifecycle management process that have critical interdependences which must be taken into account when making investment decisions for individual components of the

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.

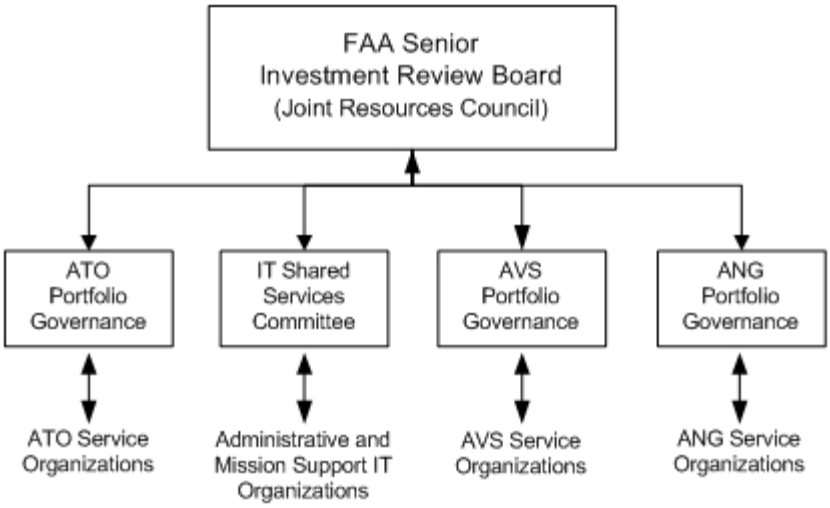
Functional Portfolio Management - The NextGen organization oversees investment packages that cut across service organizations to provide fully integrated functional capability for the National Airspace System in such areas as weather, surveillance, communications, automation, and navigation. More than 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 1/2018

Acquisition categories ensure the appropriate level of oversight and documentation requirements are applied to each FAA investment program. Acquisition categories apply to all NAS investment programs, regardless of funding, as well as all other F & E funded programs. The Joint Resources Council is the investment decision authority for all acquisition categories.

Investment programs are classified by investment type (new investment, software enhancement, 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 AMS Table of Acquisition Categories, along with requirements for the phases and decision of the AMS Lifecycle. Review organizations for investment decisions and required documentation also 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 4/2019

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 or execution plan approved by the Joint Resources 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.

Service Teams, Program Offices and executing organizations may also, at any time, request a JRC strategy decision. The purpose of a strategy decision is to inform the JRC of a change to an investment or to seek clarification or approval from the JRC for a decision that is not captured clearly in a typical AMS milestone decision. An investment program may also request a strategy decision if additional interpretation of AMS policy and guidance is needed. The service team, program office, or executing organization should notify the JRC Executive Secretariat as soon as proposed changes have been identified. The secretariat will then place the decision on an upcoming JRC meeting agenda.

Additionally, a service team, program office, or executing organization must request an update to a previously approved AMS milestone decision when key elements, direction, or strategy for an investment program or initiative have changed. Examples include major changes to proposed alternatives, the timing or scope of the program, the acquisition strategy, or the use of management reserve for additional scope or new projects outside of an already approved acquisition program baseline or execution plan. The service team, program office, or executing organization must notify the JRC Secretariat as soon as the updated strategy/changes are ready for consideration. The Secretariat will place the presentation on an upcoming JRC agenda for a JRC decision. The JRC must approve the strategy decision before the program or initiative can proceed with further investment decisions.

A template for a JRC strategy briefing is available on the JRC Executive Secretariat portal.

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.

Table 1.2.6-1 Lifecycle Management Decision-Making

Decision	Decision Body	Decision Chair
Concept and requirements definition readiness decision	FAA Enterprise Architecture Board	None
Investment analysis readiness decision	JRC	Acquisition Executive
Initial and final investment decisions *(including new programs and extension of current capability)*	JRC	Acquisition Executive
Strategy Decision	JRC	Acquisition Executive
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 approvals	JRC	Acquisition Executive
FAA Enterprise Architecture changes	JRC	Acquisition Executive

1 Decision required for developmental products. See AMS section 2.6.1.
2 The Joint Resources Council designates the product demonstration, production and in-service 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 4/2019

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 baseline values in their acquisition program baseline or execution plan. 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 4/2019

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 or execution plan. The TechStat review results in a corrective action plan to improve program execution and performance within the approved program baseline or

execution plan, 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 http://fast.faa.gov. 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).

The ASAG is a cross-organizational body that evaluates proposed changes to acquisition management policy and guidance to ensure:

- 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 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

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 4/2019

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

	derived from the NAS ORD	consistent with the NAS ConOps and ORD	Advanced Concepts & Technology Development Office NAS Lifecycle Integration Office ATO Operational Concepts and Requirements Lines of business	Engineering Services endorses
FAA Enterprise Architecture	Defines the FAA target architecture and the transition strategy to reach the target Establishes the basis for service organization planning Defines the strategic investment plan for the FAA	Reviewed annually and updated as needed	Chief Information Officer Assistant Administrator for NextGen	Joint Resources Council

Portfolio-Level Documents

Document	**Purpose**	**Requirement**	**Responsible Organization(s)**	**Approving Official or Body**
Operational Capability Business Case (NAS)	Defines the rough costs and benefits of an operational capability	Required as the basis for establishing a new operational capability	Advanced Concepts and Technology Development Office ATO Program Management Office Investment Analysis & Planning Service organizations	NextGen Systems Engineering & Modeling

Operational Capability Integration Plan (NAS)	Defines the relationships, responsibilities, and agreements between all organizations contributing to the achievement of an operational capability	Preliminary plan required upon formation of a capture team Final plan required when all capability elements have entered concept and requirements definition	Portfolio manager Capture team	NextGen Management Board

Program-Level Documents

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

	basis for investment decisions	Final business case at the final investment decision.	service organization with the mission need	service organization Non-ATO: Director of the implementing service organization Designated ACAT reviewers
Implementation Strategy and Planning Document	Defines overall implementation strategy and planning for an investment program	For the initial investment decision, alternatives analyzed and summarized comparatively for factors in select sections of the ISPD Complete ISPD is required for the final investment decision Reviewed annually	Implementing service organization Operating service organization	Chair of the Joint Resources Council ATO: Chief Operating Officer / Deputy Chief Operating Officer Non-ATO: Second-level executive of the organization executing during solution implementation Stakeholder organizations approve specific sections per the ISPD template Updated sections approved at the same level
Program Management Plan	Defines how the implementation strategy of the investment program will be executed during solution implementation	PMP required for the final investment decision Reviewed annually	Implementing service organization	Director, implementing service organization Updates approved at the same level
Test and	Describes the	Preliminary	Test and	Director of the

Evaluation Master Plan	test strategy and scope of a test program Defines the test and evaluation methodologies that will be used to assess safety hazard controls and mitigations and security risks	document at initial investment decision Initial document at the final investment decision Final document after contract award or as defined in the ISPD	evaluation service organization(s)	test service organization Non-ATO: Second level executive of the organization executing during solution implementation For Mission Support IT programs: AIT, Solution Delivery Service
OMB Major IT Business Case	Budgetary document required by OMB for designated investment programs	Preliminary document at the initial investment decision Final document at the final investment decision	Investment analysis team Implementing service organization	ATO: Chief Operating Officer Non-ATO: Associate or Assistant Administrator of the line of business or staff office Acquisition Executive Chief Financial Officer Chief Information Officer Deputy Administrator concurs

1.2.16 OMB Budget Documentation Revised 1/2015

The OMB Major IT Business Case 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 Major IT Business Case, 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 Major IT Business Case for designated information technology capital investments before submission to OMB. The Acquisition Executive and Chief Financial Officer approve OMB Major IT Business Cases 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 Revised 4/2019

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 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 or execution plans 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.

2 Lifecycle Acquisition Management Policy

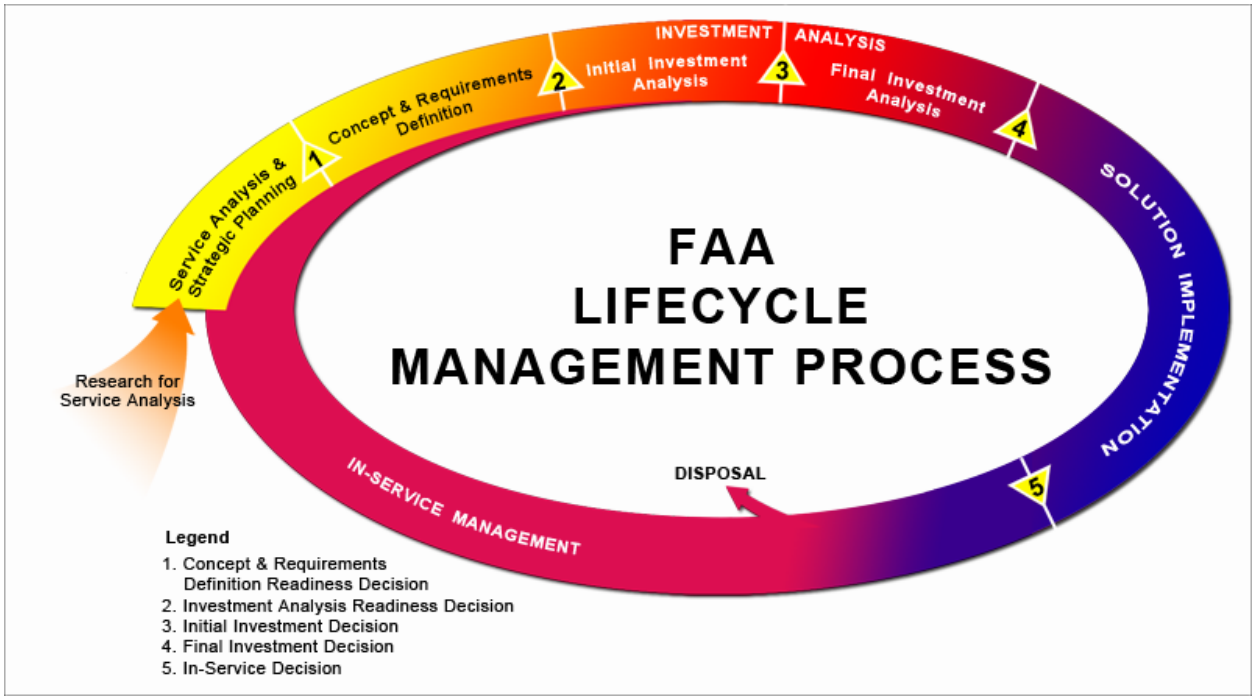
2.1 Overview Revised 4/2013

Lifecycle acquisition management is built around a logical sequence of phases and decision points (see Figure 2.1-1). The FAA uses these phases and decision points to determine and prioritize its needs, make sound investment decisions, implement solutions efficiently, and manage services and assets over their lifecycle. The overarching goal is continuous improvement in the delivery of safe,

secure, and efficient services over time. Application is flexible and may be tailored by the Acquisition Executive or Joint Resources Council.

The lifecycle management process is the FAA's Capital Investment Planning and Control Process. Service analysis and investment analysis constitute the select process. Solution implementation is the control process. In-service management is the evaluation process.

Figure 2.1-1 The FAA Lifecycle Management Process



2.1.1 Key Elements of Lifecycle Management Policy Revised 4/2013

FAA lifecycle management policy emphasizes the following:

- Service organizations are responsible and accountable for managing service delivery throughout the lifecycle;
- Service organizations manage fully integrated portfolios of investment and operational assets to optimize service delivery over time;
- Portfolio managers coordinate implementation of all materiel and non-materiel investment increments necessary to obtain an operational capability;
- Service analysis is the foundation for long-range planning by service organizations and the FAA as a whole;
- Users, customers, and industry work together to define affordable and sufficient requirements so practical solutions can be developed;
- Investment decisions are based on the relative merit of different investment opportunities for satisfying priority service needs and FAA performance goals;
- Commercial and non-developmental solutions are preferred when they satisfy customer needs and make economic sense;

- Investment programs are approved and funded in manageable phases;
- Lifecycle supportability is designed into products and services to minimize both cost and risk;
- Investment programs are managed within approved cost, schedule, performance, and benefit baselines throughout their lifecycle;
- In-service decisions are based on demonstration that operational requirements and readiness are satisfied;
- Evolutionary improvement of service delivery and the quick insertion of productive new technology is encouraged; and
- Operational performance, costs, and benefits are evaluated periodically throughout in-service management as a basis for improving cost-effective service delivery.

2.1.2 Evolutionary Product Development Revised 4/2013

The FAA employs evolutionary product development to limit the design challenge for any one product development cycle by deferring risky technology and immature requirements to later updates. The objective is to minimize risk and facilitate the achievement of cost, schedule, and performance goals. Product development and implementation are appropriate when risk is low, requirements are known and stable, and resources are available.

Evolutionary product development begins during research for service analysis when the FAA develops and evaluates new concepts and technology for possible application to the aviation service environment. Only the best new concepts validated to be technically, operationally, strategically, and financially mature and beneficial enter into the NAS Concept of Operations as candidates for investment and deployment.

During concept and requirements definition, service teams conduct a final assessment of the maturity of marketplace technology and customer requirements. Only low-risk, high-value investment increments proceed to investment analysis and solution implementation. Higher risk concepts are deferred, terminated, or designated for additional research or technology development.

2.1.3 Knowledge-Based Decision-Making Revised 4/2013

The FAA employs knowledge-based decision-making throughout the lifecycle management process. Specific knowledge, as defined by decision criteria, must be achieved for entry into AMS decision points. These criteria are defined as entrance criteria in the AMS policy section for each decision point. Investment programs that develop systems or software must capture additional design and manufacturing knowledge about their products as prescribed in Section 2.6.1, and base decisions on whether to proceed further in the lifecycle management process on that knowledge.

2.1.4 Investment Planning Revised 4/2019

Investment planning occurs throughout the AMS lifecycle management process (see Table 2.1.4-1). During service analysis and strategic planning, the focus is on defining corporate service needs and

shortfalls and deciding when to seek solutions within realistic budgetary constraints. Investment planning during the remainder of the AMS lifecycle management process supports the definition, acquisition, deployment, and lifecycle support of affordable solutions to approved service needs. Throughout this management process, FAA service organizations employ standard scheduling practices, standard program milestones, and the standard lifecycle work breakdown structure.

Table 2.1.4-1 Investment Planning During the AMS Lifecycle Management Process

Lifecycle Management Phase	Focus of Investment Planning
Service analysis and strategic planning	FAA service needs and service shortfalls
Concept and requirements definition	Program requirements and alternative solutions for approved service needs
Initial investment analysis	Business case analysis to determine the best overall solution
Final investment analysis	Final business case and implementation planning for the alternative selected for acquisition and deployment based on vendor proposals and operational support needs
Solution implementation	Program implementation consistent with the acquisition program baseline or execution plan approved at the final investment decision
In-service management	Sustainment of operational assets including product improvements and technology upgrades as defined in the business case

2.1.4.1 FAA Scheduling Practices Revised 10/2014

Service organizations and program offices employ FAA scheduling best practices when planning investment programs. This includes communicating up-to-date acquisition and site-specific waterfall deployment schedules to all key stakeholders by means of the corporate work plan. Guidance for FAA scheduling practices is located in FAST on the investment analysis page.

2.1.4.2 Standard Program Milestones Revised 4/2019

Service organizations and program offices employ standard program milestones when planning, executing, and reporting progress on agency investment programs, including entries in the OMB Major IT Business Case (designated programs only) and acquisition program baseline or

execution plan. Standard milestones for system and facility investment programs are located in FAST on the decisions / reviews / standard milestones page.

2.1.4.3 Standard Lifecycle Work Breakdown Structure Revised 10/2014

Service organizations and program offices employ the FAA standard lifecycle work breakdown structure when estimating total lifecycle cost and constructing initial program plans and schedules for each alternative solution during initial investment analysis. They use it during final investment analysis to develop a program work breakdown structure and implementation planning for the alternative approved by the Joint Resources Council.

2.1.5 Measurement and Analysis Revised 4/2019

Measurement and analysis is a management and control process applied throughout the lifecycle of an investment program or operational asset to assess progress, forecast performance, determine status, and define corrective action. Measurement and analysis provides information and visibility toward accomplishing program goals and supporting management information needs.

Each line of business or staff office institutes measurement and analysis processes in accordance with AMS policy and guidance that:

- Collect, store, analyze, and report data on seventeen standard measures defined in Standard Program Performance Measures;
- Collect, store, analyze, and report baseline performance data defined in the Acquisition Baseline Management Standard Operating Procedure for those programs with an approved acquisition program baseline or execution plan; and
- Provide early warning indicators of program issues before they become major problems.

Measurement and analysis information needs include, but are not limited to:

- Contract information that supports management and executive monitoring of vendor performance;
- Contract information that supports acquisition quality assurance;
- Program, operational, risk, and contract information that supports monitoring of lifecycle cost, schedule, performance baselines, as well as benefits and technical progress;
- Program information that supports achievement of FAA strategic goals and alignment with the enterprise architecture; and
- Operational and business case information that supports investment decision-making.

2.1.6 Verification and Validation Revised 10/2014

The FAA employs verification and validation throughout the acquisition management lifecycle in accordance with AMS verification and validation guidelines to support investment decisions and approvals. Validation ensures the right product is built (fulfills its intended use). Verification ensures a product is built right (according to specifications). Verification and validation are performed early and incrementally throughout the lifecycle management process on select work

products, product components, and products. Products are intended for delivery to a customer or end user. Product components are lower-level configuration items of the product. Work products represent, define, or direct product development. The following are sample work products, work components, and products subject to verification and validation:

- Operational concept or procedures
- Planning documents
- Requirement and specification documents
- Procurement and contractual documents
- Models, prototypes, and simulations
- Design documents
- Products and product components

2.2 Research for Service Analysis Revised 4/2013

Research and systems analysis are often required during service analysis to mature operational concepts, reduce risk, or define requirements before a decision is rendered to proceed further in the lifecycle management process. Research for service analysis (RSA) policy also applies when research and systems analysis are required to develop NAS architecture products to meet the criteria to enter concept and requirements definition. In addition, AMS portfolio management policy applies when alignment across related initiatives is necessary to mature concepts to move through the AMS lifecycle.

During RSA, the FAA engages in two general areas of applied research activity:

- Research, Engineering, and Development (RE&D)
- Concept Maturity and Technology Development (CMTD)

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 FAA strategic planning, the NAS architecture, and CMTD activities, but do not lead directly to concept and requirements definition.

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.

RSA activities related to the NAS are performed in coordination with the NextGen organization to ensure alignment with the enterprise-level technical strategy as reflected in the NAS architecture.

2.2.1 Research, Engineering, and Development Process Revised 4/2013

The RE&D process supports aspects of aviation with research on materials and human factors to support development of new products, services, and procedures. These aspects include regulation, certification, and standards for aircraft, air operators, manufacturers, aircrews, and other aviation personnel; airports; commercial space transportation; environment; modernization, operation, and maintenance of the NAS; and aerospace policy formulation, planning, and analysis.

RE&D activity across FAA is coordinated through the RE&D portfolio process. The RE&D executive board develops the RE&D portfolio each year using strategic planning in the National Aviation Research Plan as a guide. This plan links FAA research activities to broader strategic planning in the NAS ConOps, NextGen Implementation Plan, the NAS Architecture, and the Joint Planning Development Office. The RE&D executive board is supported by program planning teams assigned to prepare and manage specific research areas.

Program managers execute research programs. They work closely with research sponsors (business units that own or share the RE&D requirement) to ensure results meet customer needs.

Annual evaluations determine whether research results are meeting performance targets and supporting FAA strategic goals. Evaluations also determine whether FAA strategic planning is leading the RE&D portfolio in the right direction.

The RE&D Advisory Committee and its associated subcommittees review the RE&D portfolio twice a year, first during budget formulation and later during portfolio evaluation.

2.2.1.1 What Must Be Done Revised 4/2013

Service organizations:

- Identify, justify, and manage research, study, and analysis within their service area of responsibility;
- Prepare budget formulation documents for research programs approved for inclusion in the RE&D portfolio;
- Submit research, study, and analysis proposals to the RE&D portfolio development process for evaluation and possible inclusion in the RE&D portfolio;
- Facilitate peer reviews by subject-matter experts to improve the quality and timeliness of ongoing research programs; and
- Maintain documentation of research methodology, activities, and results.

NextGen organization:

- Manages the RE&D planning and budget process;
- Coordinates annual development of the National Aviation Research Plan;
- Ensures the RE&D portfolio is aligned with FAA strategic goals and the NAS architecture;
- Coordinates annual updates to the NAS architecture and ensures concept RE&D activities are properly depicted;
- Identifies and analyzes potential solutions to service need, including feasibility analyses;
- Evaluate prototypes and conducts feasibility demonstrations to validate and refine initial

requirements, operational concepts, and potential solutions;
- Integrates FAA research activity with research sponsored or conducted by industry, universities, and other government organizations;
- Interfaces with Office of the Secretary of Transportation, OMB, Congress, trade associations, international organizations, and other state and federal government organizations for agency-level research issues; and
- Identifies, justifies, and manages research, study, and analysis programs.

RE&D Executive Board:

- Coordinates with the lines of business to develop the FAA RE&D portfolio each year;
- Reviews and approves the non-NextGen-funded portion of RE&D portfolio each year; and
- Coordinates sequential review of the RE&D portfolio with the Chief Operating Officer, Associate and Assistant Administrators, and Joint Resources Council.

2.2.1.2 Outputs and Products Added 7/2010

- FAA RE&D portfolio;
- Budget formulation documentation;
- National Aviation Research Plan; and
- Research products addressing the needs of the FAA and aviation community.

2.2.1.3 Who Approves? Revised 4/2013

Joint Resources Council approves the RE&D budget.

The Administrator approves the National Aviation Research Plan.

2.2.2 Concept Maturity and Technology Development Process Revised 4/2013

The concept maturity and technology development process governs conduct of NAS activities such as feasibility studies, technical analysis, prototype demonstrations, and operational assessments that identify, develop, and evaluate potential concepts for improving service delivery by the FAA. These activities may be for a single initiative or multiple initiatives related to a single concept (a portfolio, as described in section 1.2.4.2.). They may play a role in the development of service analysis products, as described in section 2.3.1. Key outputs are mature, beneficial concepts that can progress toward entry into the NAS ConOps and NAS architecture and then into concept and requirements definition phase of AMS.

The CMTD process supports concept maturity through the following three stages:

- **Concept Exploration** identifies promising concepts with sufficient definition to begin development of a concept of operations and plan follow-on activities. Work starts with the collection of a broad and varied range of potential approaches for meeting agency

strategic goals, objectives, and service needs, and organizes them into candidate concepts. Outputs are promising and feasible concepts that warrant further maturation and development.

- **Concept Development** matures and evaluates promising concepts to determine which should continue further development. Activities include modeling, simulation, and detailed analysis.
- **Concept Evaluation** confirms that a concept has great promise toward meeting the 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.

Individual projects reside in one of the stages, but may not pass sequentially through each, depending on the maturity level of the concept and the progress of related initiatives.

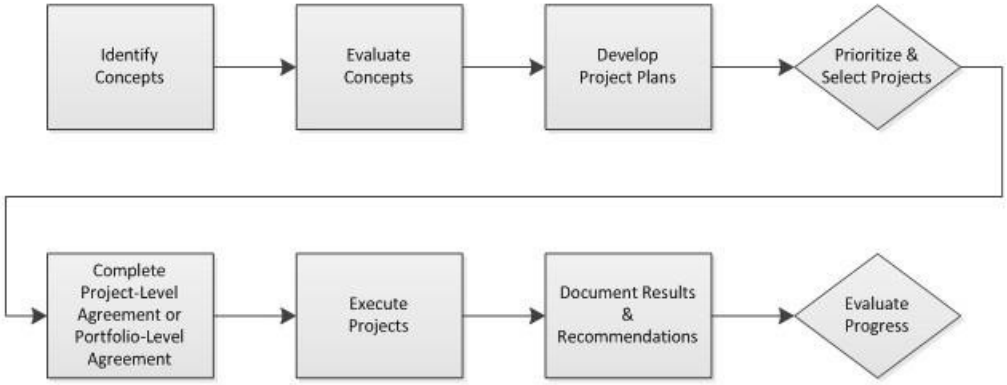
CMTD activities are selected according to their relative potential for achieving needed operational improvements identified in the NAS ConOps and NAS architecture. CMTD activities include development of mid-term operational concepts, concept evaluation studies, human factors analysis, preliminary requirements development for individual concepts, prototypes, demonstrations, and concept development. These activities generate information supporting the validity of identified capability shortfalls, future service needs, capability requirements, expectations of benefits, and design alternatives. See CMTD guidance for a list of products and how CMTD supports the development of those products.

2.2.2.1 What Must be Done? Revised 4/2013

CMTD encompasses activities designed to validate concepts for improving performance. A concept is a broad area of potential operational improvement to be explored for applicability to agency strategic goals and objectives. Concepts are evaluated for technical and operational feasibility as they progress through the CMTD process where they are prepared for entry into the NAS ConOps and NAS architecture, and eventually on to concept and requirements definition.

Individual projects are discrete efforts that evaluate specific aspects of the concept and provide data necessary to assess technical maturity and operational feasibility. The objective of each project must be defined, have definitive deliverables, and have clear success criteria. An individual project is most often completed during one stage of the CMTD process, and is always conducted in accordance with a project-level or portfolio-level agreement. Several CMTD projects may need to be completed for a concept to be deemed mature enough to continue with service analysis or enter concept and requirements definition.

The following flowchart describes the steps that projects move through during the CMTD process. The steps are cyclic and apply to each stage of the process.



- **Identify concepts.** All potential concepts for satisfying immediate or future priority service or performance needs are gathered and acknowledged. The FAA strategic plan, NAS architecture, NAS ConOps, NextGen Implementation Plan, and prior research are various sources from which to identify concepts.
- **Evaluate concepts.** Concepts are evaluated annually to determine which have the greatest potential for improving performance and service, and which need to mature in the near future. The NAS architecture links operational improvements to strategic goals and identifies when they are needed.
- **Develop project plans.** A project plan is completed for each potential project. The plan defines project goals and objectives; explains how it will mature the research concept; identifies interdependencies, related projects, risks, and safety concerns; and documents expected outputs and measures for success.
- **Prioritize and select projects.** The portfolio manager collects all project plans and prioritizes them based on immediate needs, dependencies, and projected results. Highest priority research projects are selected to be carried out based on available funding. Projects not selected return to the identify concepts step of the CMTD process for the next funding cycle.
- **Complete project-level agreement or portfolio-level agreement.** The project team completes the project-level or portfolio-level agreement, which is reviewed by the portfolio manager. This document builds on the project plan and defines project objectives, scope, schedule, deliverables, measures of success, and resources.
- **Execute projects.** The project team carries out the research in accordance with the project-level or portfolio-level agreement.
- **Document results and recommendations.** The project team documents all findings and products completed during the research. Depending on the stage, findings could be a refined concept of operations, preliminary requirements, the identification of alternative solutions, the analysis of multiple alternatives, the feasibility and scalability of a single alternative, or the demonstration of a proposed concept. The project team also recommends what should happen next based on the findings. Depending on which stage the concept is in, recommendations could consist of: continue working on the concept, the concept is mature, or terminate further consideration of the concept.
- **Evaluate progress.** Individual projects are evaluated periodically and project results are used to develop documentation for service analysis and concept and requirements definition. Often, completion of multiple projects through many cycles will be required to mature a concept from exploration to evaluation. When a concept is deemed mature, the initiative may continue in service analysis or progress to concept and requirements

definition as described in section 2.4.

2.2.2.2 Outputs and Products Revised 4/2013

- Project plans and project level or portfolio level agreements
- Project research results and recommendations
- Information that validates new ideas and concepts strategically, operationally, technically, and financially for inclusion in the NAS ConOps

2.2.2.3 Who Does It? Revised 4/2013

Organization	Responsibilities
NextGen organization	Develops and maintains the NAS architecture; Coordinates annual development of the NextGen Implementation Plan; Manages the NextGen planning and budget process; Defines project plan selection, management, and evaluation criteria for CMTD activities in coordination with project sponsors and stakeholders; Assesses progress of research activities toward achievement of documented project plans and ensures documentation of results and recommendations; Facilitates coordination with trade associations, international organizations, and other state and federal government organizations for agency-level research and concept development initiatives; and Functions as the CMTD portfolio manager.
Service organizations	Identify service gaps and prepare research proposals for activities to identify and evaluate alternative solutions to eliminate service gaps; Prepare budget formulation documentation for CMTD activities for which the organization serves as the performing organization; Execute projects as documented in project-level agreements and project plans; Document project results; and Plan and obtain support for operational prototypes as specified in the Integrated Logistics Support Process Manual. This may include training, manuals, spare parts, repair, and support services, as well as decisions related to removing prototypes and restoring sites when activity is complete.

2.2.2.4 Who Approves? Revised 4/2013

Artifact	Approval Authority
CMTD activities as	Joint Resources Council

part of the F&E budget	
Project-level agreements or portfolio-level agreements	NextGen organization or service organization portfolio manager

2.3 Service Analysis and Strategic Planning Revised 4/2013

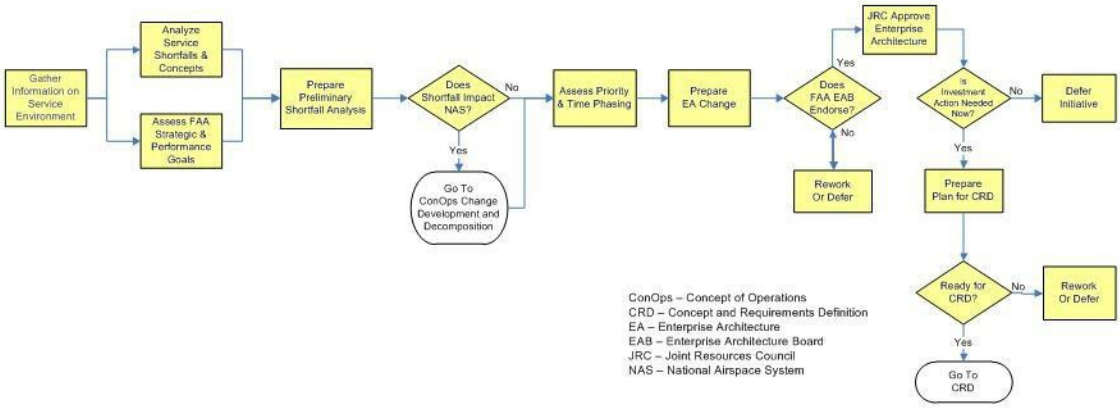
Service analysis and strategic planning determines what capabilities must be in place now and in the future to meet agency goals and the service needs of customers. Results are captured in the "as is" and "to be" states of the enterprise architecture, as well as the roadmaps for moving from the current to the future state. Results are also captured in line-of-business business plans and service organization operating plans, which specify how each will manage its RE&D, F&E, and OPS resources over time. These plans integrate new investment initiatives with the operation and support of fielded assets and other necessary actions to optimize service delivery. Continuing analysis keeps planning current with changes in the service and operational environment.

Industry best practices (e.g., technology and service demand forecasting, portfolio management, customer surveys) are employed during service analysis to align service outcomes with actions and activities necessary and sufficient to realize benefits for the FAA and its customers. Service analysis may lead to the refocus, reduction, or elimination of ongoing investment programs, and may identify new and more productive ways of doing business. It may also identify alternative paths for achieving service goals in a dynamic environment, and may identify opportunities for improving FAA strategic planning when the service environment evolves in ways not anticipated. Some investment opportunities may require research and development to demonstrate operational concepts, reduce risk, or define requirements before proceeding further in the lifecycle management process.

2.3.1 What Must Be Done Revised 4/2017

Figure 2.3-1-1 portrays the key activities of service analysis and strategic planning. These activities develop the information necessary for determining which service shortfalls or new ideas for improving service delivery are approved for inclusion in agency strategic planning documents. When a service shortfall impacts the National Airspace System, it enters the NAS ConOps change development and decomposition process (see Figure 2.3.1-2) to determine how it fits within the National Airspace System.

Figure 2.3-1-1 Key Activities of Service Analysis and Strategic Planning



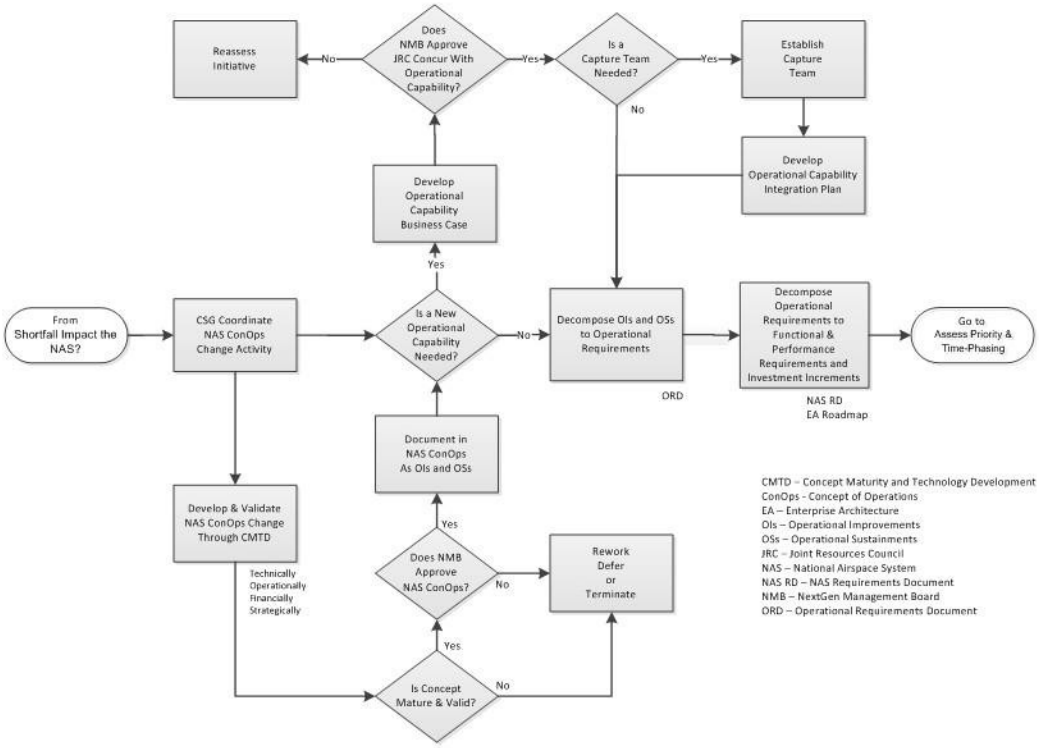
- **Gather Information on the Service Environment.** Service organizations analyze forecasts for aviation service needs and stay abreast of opportunities for improving service delivery as a basis for determining and prioritizing service needs and shortfalls. A continuing dialog with and feedback from customers (e.g., commercial air carriers, general aviation, air transport industry, state and local airport authorities) and users (air traffic and technical operations) are crucial, as is the supportability and operational outlook for fielded assets.
- **Analyze Service Shortfalls and Concepts.** Lines of business use service environment performance information to identify shortfalls and ideas for improving service delivery within their domain. Aviation research by NASA and other industry and government organizations may also identify emerging service shortfalls or technological opportunities for improving service delivery. This activity identifies business, technology, organizational, process, and personnel issues that affect service outcomes, as well as assumptions, risks, and dependencies.
- **Assess FAA Strategic and Performance Goals.** Service shortfalls or new ideas for improving service delivery should support current services or fulfillment of FAA strategic and performance goals. When they do not, the shortfall or new idea must be shown to have sufficient merit to warrant inclusion in agency strategic planning documents. Agency strategic plans and performance goals may also define service shortfalls that must be addressed in lower-level agency planning.
- **Prepare Preliminary Shortfall Analysis.** The service organization analyzes the shortfall or new idea as a foundation for understanding the problem and its urgency and impact. The shortfall is the difference between future service need and current capability. A service shortfall is usually addressed by a sustainment action for existing assets or a new service delivery idea including cloud services for predicted gaps. A new idea or concept should deliver existing services more efficiently or provide new services of value to the FAA and aviation industry. At this stage, the service shortfall is expressed as levels of service improvement, not by specific performance values.
- **Does Shortfall Impact the National Airspace System?** A new service need or shortfall that impacts the National Airspace System is assessed by means of the NAS ConOps Change Development and Decomposition Process (see Figure 2.3.1-2) to determine whether or how the NAS ConOps should be changed. Once NAS needs or shortfalls have been appropriately included in the NAS ConOps as operational improvements or sustainments, they move forward with Mission Support shortfalls to determine how they should be integrated within the FAA enterprise architecture.
- **Assess Priority and Time-phasing.** A new service shortfall or need must be shown to

have sufficient merit to warrant inclusion in the enterprise architecture when evaluated against other service needs of the agency. The line of business works with the Technical Review Board (NAS) or the Architecture Review Board (Mission Support) and other lines of business to determine how a new service need, technology refresh, or sustainment activity should be planned, time-phased, and integrated within the architecture relative to all other agency service needs. This activity may require rework of existing shortfalls and improvements already in the architecture.

- **Prepare Enterprise Architecture Change.** The service organization prepares change documents reflecting the service need or shortfall and submits them to the FAA Enterprise Architecture Board for endorsement. NAS service needs and shortfalls are expressed as operational improvements and operational sustainments.
- **Does FAA Enterprise Architecture Board Endorse the Change?** The FAA Enterprise Architecture Board determines whether and how to integrate new service needs within the enterprise architecture and its roadmaps. In making this determination, the board analyzes and assesses the new service need against all other service needs of the FAA using such criteria as contribution to agency strategic goals, monetary or performance benefits, compatibility with the enterprise architecture, risk, and political sensitivity. The decision to endorse and place a new service need, improvement, or sustainment within the enterprise architecture validates that this service need is an agency priority and warrants further action.
- **Joint Resources Council Approves the Enterprise Architecture.** The Joint Resources Council approves the FAA Enterprise Architecture annually. No service need can proceed further in the AMS lifecycle management process unless it is in the enterprise architecture approved by the JRC. Emergency needs not contained in the JRC-approved architecture may be presented to the FAA Enterprise Architecture Board by exception.
- **Rework or Defer.** Service needs, shortfalls, improvements, and sustainments not approved for inclusion in the enterprise architecture are reworked or deferred according to the direction of the FAA Enterprise Architecture Board or Joint Resources Council, as appropriate.
- **Is Investment Action Needed Now?** The investment increment enters concept and requirements definition at the appropriate time as determined by its time-phasing in the appropriate enterprise architecture roadmap.
- **Defer Initiative.** Investment action is deferred when action is not needed now to meet agency plans and schedules.
- **Prepare Plan for Concept and Requirements Definition.** NAS Systems Engineering Services (NAS) Office of Information & Technology, Solution Delivery Service, Solution Strategy Division, EA Branch (Mission Support) works with the implementing and operating service organizations to prepare a plan for concept and requirements definition. This plan (1) specifies how tasks will be accomplished; (2) defines roles and responsibilities of participating organizations; (3) defines outputs and exit criteria; (4) establishes a schedule for completion; and (5) specifies needed resources. By signing the plan for concept and requirements definition, organizations that will do the work agree to provide the necessary resources.
- **Ready for Concept and Requirements Definition?** The FAA Enterprise Architecture Board makes the decision to enter concept and requirements definition or directs other action.
- **Rework or Defer.** The investment initiative is reworked or deferred when planning or organizational support is not sufficient to enter concept and requirements definition.

Figure 2.3.1-2 NAS ConOps Change Development and Decomposition Process

(Applies to the NAS only)



- **Concept Steering Group Coordinates NAS ConOps Change Activity.** The Concept Steering Group reviews the preliminary shortfall analysis to determine whether the service shortfall or new idea is addressed in the NAS ConOps. New shortfalls or ideas that are already within the scope of the NAS ConOps move to decomposition into operational requirements and investment initiatives after determining whether they should be incorporated into a new or existing operational capability. For shortfalls and ideas not addressed in the NAS ConOps, the Concept Steering Group coordinates discussion with the sponsor and the lines of business to determine what development or validation activity is needed.
- **Develop and Validate NAS ConOps Change Through Concept Maturity and Technology Development.** New ideas for improving NAS service or eliminating a shortfall must be validated to be technically and financially feasible, strategically aligned with agency goals and objectives, and have significant operational benefit to warrant inclusion in the NAS ConOps. The Concept Steering Group coordinates activity to develop and validate new ideas and concepts. Typically, the concept maturity and technology development process is applied to the point where technical risk is sufficiently low and potential benefits sufficiently high to justify inclusion. This activity includes safety and security assessments to identify and characterize any safety hazards and information security factors associated with the idea or concept.
- **Is Concept Mature and Valid?** The NAS ConOps is a stable document that evolves over time. Only the best high-value new concepts and ideas are added. The Concept Steering Group assesses development and validation results and records their findings

and recommendations in a memorandum to the NextGen Management Board, which approves all changes to the NAS ConOps.

- **Does NextGen Management Board Approve NAS CONOPS?** The NextGen Management Board approves changes to the NAS ConOps. Changes are presented to the Joint Resources Council. Any JRC concerns or issues are resolved to ensure approved concepts are beneficial *and* affordable and supported by both management bodies.
- **Document Changes in NAS ConOps as Operational Improvements or Sustainments.** Service shortfalls and new concepts are documented in the NAS ConOps as operational improvements and operational sustainments.
- **Is a New Operational Capability Needed?** Grouping and managing operational improvements and sustainments with a high degree of interdependency may result in a high-value operational capability for the agency and aviation community. In such cases, one or more operational improvements will be organized and managed as a portfolio to ensure all essential elements of the operational capability are obtained and deployed.
- **Develop Operational Capability Business Case.** Advanced Concepts and Technology Development works with the ATO Program Management Office and Investment Planning & Analysis to develop a business case for the operational capability. The business case contains a rough estimate of the costs and benefits associated with developing and deploying the operational sustainments and improvements necessary to enable the operational capability. The PMO coordinates with ATO service organizations to derive rough cost estimates for the work required to develop and deploy the investment increments necessary to achieve the operational capability. These same organizations derive a rough monetized estimate of benefits that will accrue to the FAA and aviation community when the operational capability is fully deployed. A preliminary assessment of risk, priority, affordability, and political sensitivity complete the business case.
- **Does NMB Approve and JRC Concur With the Operational Capability?** The NextGen Management Board decides whether to approve and establish the operational capability. The decision is based on the business case, contribution to agency strategic and performance goals, and affordability. The operational capability is implemented through its constituent investment increments approved and baselined individually by the Joint Resources Council. Obtaining these capabilities may require establishment of a capture team to integrate and coordinate activity by multiple program offices or service organizations providing the investment increments necessary to achieve the overall operational capability. By concurring with the NextGen Management Board decision, the Joint Resources Council acknowledges the operational capability and its constituent investment increments are agency priorities. The business case for the operational capability is a determining factor at future investment decisions for increments necessary to achieve the operational capability.
- **Reassess Initiative.** If the NextGen Management Board does not approve the operational capability, it may terminate the effort or recommend other activity to amend the concept or reduce risk. Any issues or concerns of the Joint Resources Council must be resolved before the operational capability is implemented.
- **Is a Capture Team Needed?** The NextGen Management Board decides whether to establish a capture team to coordinate the development, integration, and deployment of investment increments necessary to achieve an operational capability. In making this decision, the board evaluates the complexity and risk associated with the operational capability and the availability of resources. The capture team brings together cross-agency empowered representatives from each organization that must develop and deploy

an investment increment to achieve the operational capability. The objective is informed, integrated, and coordinated decision-making by all parties.

- **Establish Capture Team.** Each line of business that must contribute to achieve the operational capability provides an empowered representative to the capture team. The capture team monitors development, integration, and deployment of all elements of the operational capability, as well as plan and oversee a post-implementation evaluation to confirm that forecast benefits are being achieved or to define and implement corrective action when they are not.
- **Develop Operational Capability Integration Plan.** The team works with the portfolio manager to develop an Operational Capability Integration Plan (OCIP) that specifies responsibilities and agreements among all team members and organizations. The OCIP also defines the lifecycle plan, performance goals and measures, and operational benefits that will accrue from implementation of the operational capability.
- **Decompose Operational Improvements and Operational Sustainments to Operational Requirements.** A cross-organizational team with members from all lines of business and led by Advanced Concepts and Technology Development decomposes the NAS ConOps narrative of operational improvements and operational sustainments into NAS operational requirements. These requirements are recorded in the NAS Operational Requirements Document.
- **Decompose Operational Requirements to Functional and Performance Requirements and Investment Increments.** A cross-organizational team decomposes NAS operational requirements to NAS functional and performance requirements. These requirements are specified with sufficient detail for allocation to investment increments that will be undertaken to achieve the operational improvements and sustainments in the NAS ConOps. The goal is clear and unambiguous traceability of requirements from the NAS ConOps to the NAS Operational Requirements Document to the NAS Requirements Document and then to the program requirements document of specific investment increments. Each investment increment enters concept and requirements definition at the appropriate time as determined by their time-phasing in the enterprise architecture roadmap.

2.3.2 Outputs and Products Revised 4/2013

2.3.2.1 Service Analysis and Strategic Planning Revised 4/2013

- Preliminary shortfall analysis that describes qualitatively the service need, shortfall, and legacy assets;
- Enterprise architecture change notices, products, and amendments;
- Updates to the enterprise architecture; and
- Plan for concept and requirements definition.

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

2.3.2.2 NAS ConOps Change Development and Decomposition Revised 4/2013

- White papers, research reports, and outputs from concept maturity and technology

development;
- Updates to the NAS ConOps;
- Operational capability business case;
- Operational capability;
- Capture team;
- Operational Capability Integration Plan;
- Updates to the NAS Operational Requirements Document; and
- Updates to the NAS Requirements Document.

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

2.3.3 Who Does It? Revised 4/2013

2.3.3.1 Service Analysis and Strategic Planning Revised 4/2017

Organization(s)	Responsibilities
Service organizations	Conduct service analysis Prepare preliminary shortfall analysis reports Prepare EA change notices, products, and amendments
Advanced Concepts and Technology Development Office (ANG-C), NextGen Lifecycle Integration Office (ANG-D)	Assists NAS service organizations when preparing service analysis outputs and products
Office of Information & Technology, Solution Delivery Service, Solution Strategy Division, EA Branch (Mission Support)	Assists Mission Support service organizations when preparing service analysis outputs and products
Lines of Business	Prioritize LOB service shortfalls and new ideas Determine whether a service shortfall impacts the National Airspace System Work with the Technical Review Board to time-phase operational improvements and operational sustainments in the NAS architecture roadmaps
Technical Review Board	Works with the lines of business to time-phase operational improvements and operational sustainments in the NAS architecture roadmap
Architecture Review Board	Works with the lines of business to prioritize Mission Support service shortfalls and needs
FAA Enterprise Architecture Board	Manages the FAA Enterprise Architecture

2.3.3.2 NAS ConOps Change Development and Decomposition Revised 4/2013

Organization(s)	Responsibilities
Service organization with shortfall/concept, Advanced Concepts and Technology Development Office (ANG-C), NextGen Lifecycle Integration Office (ANG-D)	Develop information needed to assess impact of shortfall/concept on the NAS ConOps
Service organization with shortfall/concept, Advanced Concepts and Technology Development Office (ANG-C), Investment Analysis and Planning (IP&A)	Develop and validate shortfalls and new concepts technically, operationally, strategically, and financially
Advanced Concepts and Technology Development Office (ANG-C), CSG, service organization with shortfall/concept	Present shortfall/concept to the NextGen Management Board for inclusion in the NAS ConOps
NAS Systems Engineering Services Office (ANG-B), Advanced Concepts and Technology Development Office (ANG-C), NextGen Lifecycle Integration Office (ANG-D)	Document shortfall as operational improvements or sustainments in the NAS ConOps
ANG-B/C/D, PMO/LOB	Determine need for new operational capability
ANG-C, ANG-5, PMO/LOB, IP&A	Develop operational capability business case IP&A reviews the business case for the Joint Resources Council
ANG-C, ANG-5, PMO/LOB	Contribute to and participate in the decision to create a new operational capability
ANG-C/D, PMO/LOB	Determine the need for a capture team to plan and oversee a new operational capability
ANG-C/D, PMO/LOB, operating organization	Contribute to and establish a capture team
ANG-C, AJV-7, LOBs, service organizations	Decompose operational improvements and sustainments in the NAS ConOps into operational requirements and investment increments
ANG-B/C/D, operating organization, capture team (if applicable)	Decompose NAS operational requirements into NAS functional and performance requirements

2.3.4 Who Approves? Revised 4/2013

2.3.4.1 Service Analysis and Strategic Planning Revised 4/2013

Artifact	Approval Authority
Preliminary shortfall analysis	NextGen Lifecycle Integration Office, Director of the service organization with the need
Enterprise architecture products and amendments	FAA Enterprise Architecture Board
Plan for concept and requirements definition	Vice Presidents (ATO) or Directors (non-ATO) of the service organization with the service need and the operating service organization and the FAA Enterprise Architecture Board chairperson
FAA Enterprise Architecture	Joint Resources Council

2.3.4.2 NAS ConOps Change Development and Decomposition Revised 4/2013

Artifact	Approval Authority
NAS ConOps	NextGen Management Board
Operational Capability Business Case	NextGen Systems Analysis and Modeling (ANG-5)
Operational capability	NextGen Management Board (JRC concurs)
Capture team	NextGen Management Board
Operational Capability Integration Plan	NextGen Management Board
NAS Operational Requirements Document	ATO Operational Concepts, Validation & Requirements (AJV-7)
NAS Requirements Document	NAS Systems Engineering Service (ANG-B)

2.3.5 Concept and Requirements Definition Readiness Decision Revised 4/2013

The concept and requirements definition readiness decision occurs when an enterprise architecture roadmap indicates action must be taken to address a critical service shortfall or opportunity. At this decision, the FAA Enterprise Architecture Board verifies: (1) the service shortfall, operational improvement, or operational sustainment is in an enterprise architecture roadmap; and (2) planning and resources for concept and requirements definition are in place. The readiness decision is the gateway between service analysis and strategic planning and concept and requirements definition.

2.3.5.1 Entrance Criteria Revised 4/2013

The following are required for the concept and requirements definition readiness decision:

- Service shortfall, operational improvement, or sustainment is in an enterprise architecture roadmap and represents a compelling need of the FAA; and the
- Plan for concept and requirements definition is approved by the FAA Enterprise Architecture Board.

2.3.5.2 Decision Actions Revised 4/2013

The FAA Enterprise Architecture Board makes the decision to enter concept and requirements definition.

2.4 Concept and Requirements Definition Revised 4/2019

All investment opportunities that require funding outside the scope of an approved acquisition program baseline or execution plan undergo concept and requirements definition. This includes upgrades or replacements to existing capability without approved investment funding.

Concept and requirements definition translates priority operational needs in the enterprise architecture into preliminary requirements and a solution concept of operations for the capability needed to improve service delivery. It also quantifies the service shortfall in sufficient detail for the definition of realistic preliminary requirements and the estimation of potential costs and benefits. Finally, concept and requirements definition identifies the most promising alternative solutions able to satisfy the service need, one of which must be consistent with the conceptual framework in the enterprise architecture.

Planning for concept and requirements definition begins when a roadmap in the enterprise architecture specifies action must be taken to address a priority service or infrastructure need. These needs typically relate to existing or emerging shortfalls in the “as is” architecture or essential building blocks of the “to be” architecture. Should a service organization wish to pursue an investment opportunity not in an enterprise architecture roadmap, it must first develop architectural change products and amendments and get endorsement from the FAA Enterprise Architecture Board and approval by the Joint Resources Council.

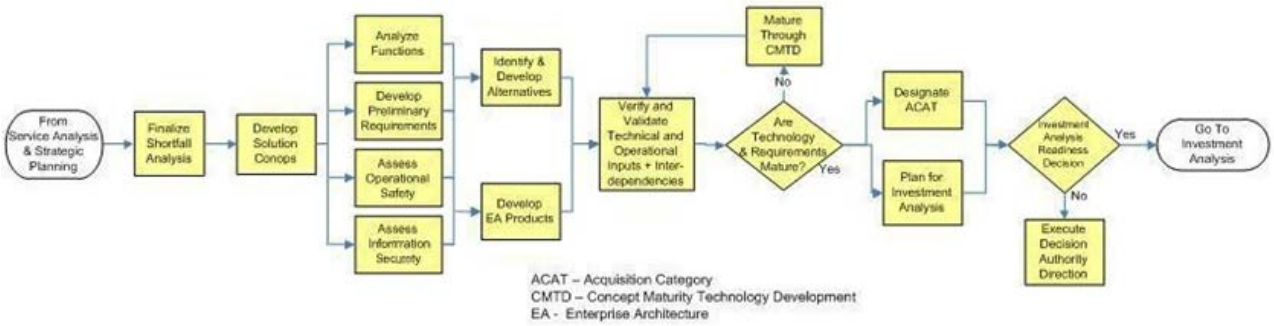
The FAA may undertake research activity or employ research by other agencies or industry to define the operational concept, develop preliminary requirements, demonstrate and refine computer-human interfaces, reduce risk, or achieve customer buy-in to potential solutions to service need.

When the investment initiative entering concept and requirements definition is an element of an operational capability (NAS only), the capture team responsible for achieving the operational capability (if established) participates in and contributes to CRD 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. These team members ensure all preliminary alternatives emerging from concept and requirements definition for each investment increment fit within the strategy for obtaining the capability and can provide the necessary performance and functionality.

A nonmateriel solution that emerges during concept and requirements definition may proceed to solution implementation upon approval of implementation and resource planning, provided it satisfies the need, can be achieved within approved budgets, and is acceptable to users and customers. 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.

The key activities of concept and requirements definition are shown in Figure 2.4-1. They apply to all investment initiatives seeking investment funding, whether a stand-alone investment initiative or an element of a complex operational capability.

Figure 2.4-1 Key Activities of Concept and Requirements Definition



2.4.1 What Must Be Done Revised 4/2017

NOTE: The plan for concept and requirements definition must be approved by the Vice Presidents (ATO) or Directors (non-ATO) of the service organization with the service need and the operating service organization and by the FAA Enterprise Architecture Board chairperson before the start of any CRD activity (see AMS Section 2.3.1). Roadmap planning in the enterprise architecture specifies when concept and requirements definition activity must begin.

- **Finalize Shortfall Analysis.** The service organization or program office updates, refines, and quantifies the preliminary shortfall identified during service analysis in sufficient detail to serve as the basis for (1) clearly understanding the nature, urgency, and impact of the service need; (2) defining preliminary requirements; (3) determining realistic and economic alternative solutions; and (4) quantifying likely program costs and benefits.
- **Develop Solution Concept of Operations.** The solution concept of operations describes how users will employ the new capability within the operational environment and how it will satisfy service need. The solution ConOps defines the roles and responsibilities of key participants (e.g., controllers, maintenance technicians, pilots); explains operational issues that system engineers must understand when developing requirements; identifies procedural issues that may lead to operational change; and establishes a basis for identifying alternative solutions and estimating their likely costs and benefits. More than one solution concept of operations may be required if proposed alternative solutions differ significantly from each other.
- **Analyze Functions.** The service organization or program office translates stakeholder needs in the shortfall analysis, solution concept of operations, and NAS Requirements Document (NAS only) into high-level functions that must be obtained to achieve the

desired service outcome. These are then decomposed into sequentially lower level functions. For NAS investment initiatives, this decomposition may have been done during service analysis when operational improvements and sustainments in the NAS ConOps were decomposed into functional and performance requirements and investment increments.

- **Perform Preliminary Information System Security (ISS) Assessment.** Service organizations assess the investment initiative to determine: (1) ISS risk factors for input to the ACAT determination, (2) ISS requirements for the preliminary program requirements document, (3) a rough ISS cost estimate for each alternative solution, and (4) a rough estimate of annual operational benefits gained from implementing security requirements.
- **Develop Preliminary Requirements.** The service organization prepares preliminary requirements in consultation with the NAS Systems Engineering Services organization (NAS) or the Office of Information & Technology, Solution Delivery Service, Solution Strategy Division, EA Branch (Mission Support). Preliminary requirements specify only function and performance, and do not define a solution. They must be expressed such that the degree to which different solutions satisfy them can be measured and evaluated. Research and analysis or even prototyping during service analysis may be necessary to define preliminary requirements adequately. When the investment increment is an element of an operational capability, preliminary program requirements must be derived from and traceable to operational capability requirements, when applicable.
- **Identify and Develop Alternatives.** The service organization or program office surveys the marketplace to identify feasible and economic solutions. Both material and non- material alternatives are evaluated. One candidate solution must be the hypothesized "best" alternative in the enterprise architecture. Key factors are safety, security, operational cost efficiencies, technological maturity, and impact on the workforce and enterprise architecture. Alternatives should be qualitatively different from each other. Low risk, cost-effective, and operationally suitable commercial or non-developmental solutions are preferred. Alternatives may not meet 100 percent of preliminary requirements. Rough lifecycle costs are developed for each alternative and compared to the monetized shortfall as a basis for determining whether it should be retained or eliminated from consideration. Rough lifecycle costs are also calculated for sustaining the legacy case in service. When a new capability involves information processing and storage, use of cloud computing is considered and results of the cloud suitability assessment are documented.
- **Assess Operational Safety.** The service organization works with ATO Safety and Technical Training to assess operational safety of the proposed initiative. This assessment identifies, assesses, and documents operational hazards and risks associated with alternative solutions. No alternative is pursued whose operational risk cannot be mitigated to an acceptable level at affordable cost.
- **Develop Enterprise Architecture Products.** The service organization engages with the appropriate architecture organization to develop required products and amendments. These include the operational (business rule) and systems (engineering) view families.
- **Verify and Validate Technical and Operational Inputs and Interdependencies.** Key technical and operational work products are verified and validated to be complete and mature as the basis for proceeding to the investment analysis readiness decision. This includes the solution ConOps, preliminary requirements document, safety and security

risk assessments, architecture products, and interdependencies with other investment increments.

- **Are Technology and Requirements Mature?** NAS Systems Engineering Services (NAS) or Office of Information & Technology, Solution Delivery Service, Solution Strategy Division, EA Branch (Mission Support) evaluates preliminary requirements and the technology base of alternative solutions to ensure they are sufficiently mature for further progression in the AMS lifecycle management process. The objective is to have only low-risk investment initiatives entering investment analysis and solution implementation. Additional research and development may be prescribed when technological risk is too high or when requirements are not mature or the investment initiative may be deferred or terminated.
- **Mature Through Concept Maturity and Technology Development (NAS only).** The Technical Review Board recommends further development for NAS initiatives when technological risk is too great or requirements are not sufficiently known. Prescribed activity may take the form of simulation, analysis, operational prototyping, or field demonstration in a controlled operational environment. See the Guidelines for Concept Maturity and Technology Development for more information.
- **Designate Acquisition Category.** The service team or program office prepares an acquisition category determination request based on preliminary financial data, as well as subjective assessments of complexity, risk, political sensitivity, safety, and security. The request is vetted through NAS Systems Engineering Services (NAS) or Office of Information &Technology, Solution Delivery Service, Solution Strategy Division, EA Branch (Mission Support) and submitted to the Acquisition Executive Board for a designation.
- **Plan for Investment Analysis.** The plan for investment analysis: (1) defines scope and assumptions; (2) describes alternatives and their associated rough lifecycle costs; (3) describes planned activities and specifies how tasks will be accomplished; (4) defines output and exit criteria; (5) establishes a schedule for completion; (6) defines roles and responsibilities of participating organizations; and (7) estimates resources needed to complete the work. By signing the plan for investment analysis, the organizations that will conduct the analysis agree to provide the resources necessary to complete the work. This activity includes development of the investment analysis readiness decision package and pre-briefings to decision-makers.

2.4.2 Outputs and Products Revised 10/2017

- Solution concept of operations;
- Preliminary program requirements document;
- Architecture products and amendments;
- Realistic alternatives with rough cost estimates;
- Detailed shortfall and functional analyses;
- Safety risk assessment;
- Information systems security assessment
- Shortfall analysis report;
- Acquisition category designation request; and
- Investment analysis plan.

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

2.4.3 Who Does it? Revised 4/2017

Organization(s)	Responsibilities
Implementing service organization	Leads and completes all activities and outputs of concept and requirements definition unless otherwise specified in the plan for CRD Prepares the acquisition category designation request
NAS Systems Engineering Services Office (ANG-B), Office of Information & Technology, Solution Delivery Service, Solution Strategy Division, EA Branch (Mission Support)	Provides engineering services in such areas as specialty engineering, safety and security analysis, and architecture products Validates technical and operational products of CRD Assesses maturity of solution technology and requirements
NAS Lifecycle Integration Office (ANG-D), Program Management Office, lines of business, operating service organization, Office of Information & Technology, Solution Delivery Service, Solution Strategy Division, EA Branch (Mission Support)	Assists the implementing service organization in completing CRD activities Maintains guidance and acquisition aids for service analysis and concept and requirements definition
Capture team (NAS only)	Monitors and oversees CRD activity when the investment initiative is an element of an operational capability Ensures alternatives can provide the performance and functionality necessary to achieve the overall operational capability

Detailed roles and responsibilities of participating organizations for each CRD activity and output or product are found in the Service Analysis and Concept and Requirements Definition Guidelines.

2.4.4 Who Approves? Added 4/2013

Artifact	Approval Authority

Acquisition category	Acquisition Executive Board approves, JRC concurs
CRD outputs and products	Approval authorities are found in the Service Analysis and Concept and Requirements Definition Guidelines.

2.4.5 Investment Analysis Readiness Decision Added 4/2013

The investment analysis readiness decision determines whether the solution ConOps, preliminary requirements, architecture products and amendments, and preliminary alternatives are sufficiently mature to warrant entry into investment analysis. The decision is made within context of all ongoing and planned investment activities to sustain and improve service delivery. It ensures proposals for new investment are consistent with overall corporate needs and planning.

2.4.5.1 Entrance Criteria Added 4/2013

The following are required for the investment analysis readiness decision:

- Preliminary program requirements document;
- Realistic alternative solutions;
- Architecture products and amendments;
- Approved shortfall analysis report;
- Signed plan for investment analysis.

The full list of work products that may be required for the investment analysis readiness decision is found on the JRC Secretariat website.

2.4.5.2 Joint Resources Council Actions Added 4/2013

The Joint Resources Council makes the decision to enter investment analysis.

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 Mission Support 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:

- Satisfies the need;
- Can be achieved within approved budgets; and is
- Operationally acceptable to the user.

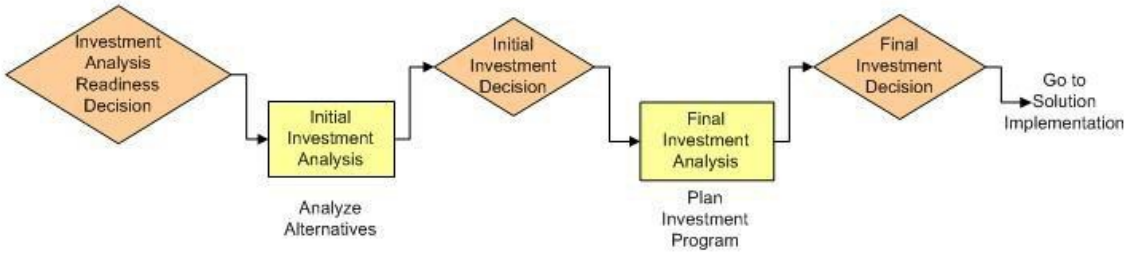
This determination is made by the Vice President or Director of the service organization with the service need with the concurrence of the FAA Enterprise Architecture Board.

All proposed investments must answer the same basic questions:

- What is the problem that needs to be addressed or resolved?
- What is the range of alternatives that could address this problem?
- What are the costs, benefits, and risks associated with each alternative?
- Based on the above, what is the recommended course of action?

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.

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

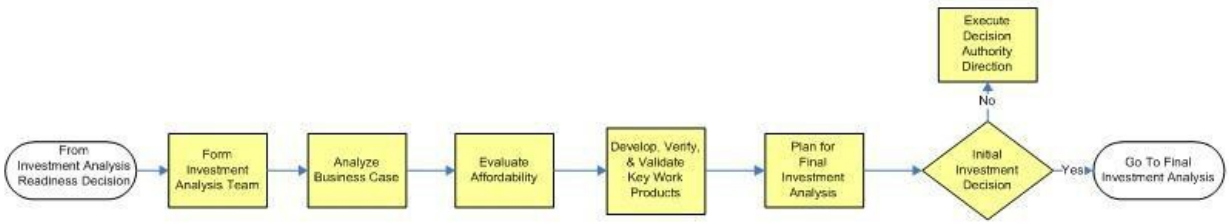
assigned to the investment opportunity. In general, the larger and more complex an investment, the greater the level of effort required during investment analysis.

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 4/2019

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



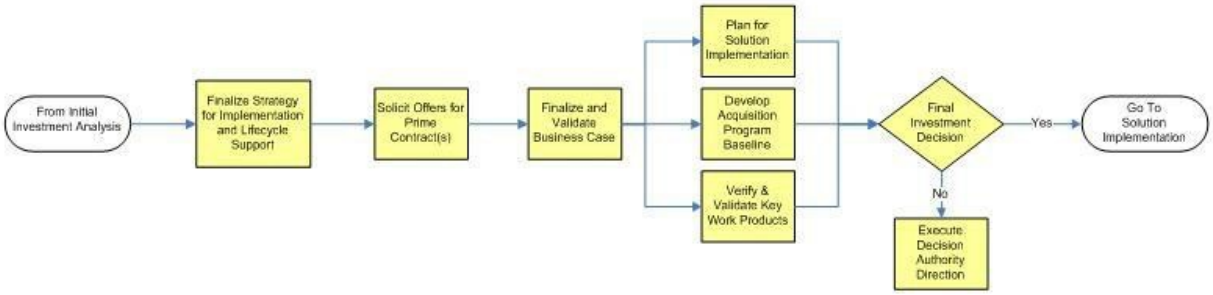
- **Form Investment Analysis Team.** An investment analysis team is formed and scaled to the size and complexity of the analysis. Team membership is flexible depending on the needs of the analysis, but typically includes system, technical, logistics, specialty engineering, testing, and operational subject-matter 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 or the execution plan.
- **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 or execution plan.
- **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 in-service review checklist. Planning must cover all key aspects of obtaining the solution so costs are reflected in resource documents and the acquisition program baseline or execution plan. 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.

- **Develop Acquisition Program Baseline or Execution Plan.** The acquisition program baseline or execution plan 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 investment analysis. 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:

- Updated program requirements document;
- Initial business case;
- Initial implementation strategy and planning documents for each alternative; and
- Plan for final investment analysis.

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 4/2019

The principal output for final investment analysis is detailed planning for the alternative selected for implementation. The following are required products:

- Acquisition program baseline or execution plan;
- 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 7/2015

Organization	Responsibilities
Investment analysis team	Performs the activities and prepares the outputs and products of investment analysis
Implementing service organization or program office	Typically leads the investment analysis team Coordinates with stakeholders throughout investment 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 Mission Support 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	Develops the preliminary and initial test and evaluation master plan

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 4/2019

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:

- Approves the investment program for implementation and delegates responsibility to the appropriate service organization or program office;
- Approves the final program requirements document, final business case, and the implementation strategy and planning document;
- Approves the acquisition program baseline or execution plan;
- Commits the FAA to funding the program segment, as specified in the acquisition program baseline or execution plan;
- Approves updated architecture products and amendments; and
- Approves adjustments to FAA plans and budgets to reflect the investment decision.

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.

2.6 Solution Implementation Revised 4/2019

Solution implementation begins at the final investment decision when the Joint Resources Council approves and funds an investment program or segment, establishes the acquisition program baseline or execution plan for variance tracking, and authorizes the service organization to proceed with implementation. Solution implementation ends when a new service or capability is commissioned into operational use at all sites.

Detailed program planning, including the solicitation and evaluation of offers for prime contract(s), occurs during final investment analysis and before the final investment decision. This ensures accurate contract costs, risks, and schedules are reflected in the acquisition program baseline or execution plan and program planning documents. These plans and baselines are revalidated, and updated if necessary, after contract award to ensure they can realistically serve as the management construct for program implementation. They are kept current throughout solution implementation.

The overarching goal of solution implementation is to satisfy requirements documented in the final requirements document and achieve the benefit targets in the business case. To achieve this, the service organization must work with users and stakeholders throughout solution implementation to resolve issues as they arise. Actions outside the direct control of the service organization (e.g., regulatory changes) are recorded in the implementation strategy and planning document and tracked at program reviews throughout solution implementation.

The activities undertaken during solution implementation vary widely and are tailored for the solution or capability being implemented. FAST contains tailored process flowcharts for representative types of investment program (systems and software, facilities, services) and functional disciplines (e.g., human factors, information systems security, configuration management, integrated logistics support). These flowcharts identify actions and activities the service organization may need to execute to achieve projected capability, value, and benefits. Instructions, templates, best practices, good examples, and lessons-learned are attached to many activities in the flowcharts to assist lifecycle management specialists as they plan and execute activities that make sense for their investment program.

Although service organizations are empowered to implement investment programs and manage them over their lifecycle, they must adhere to built-in checks and balances. The acquisition program baseline or execution plan establishes the performance, cost, schedule boundaries within which the service organization is authorized to operate. The service organization must report all negatives variance from cost, schedule, and performance baseline measures and undertake corrective action in accordance with AMS Section 1.2.3. The assessment of critical performance requirements must be regularly reported during solution implementation and at completion.

The service organization monitors cost, schedule, and performance status against targets in the acquisition program baseline or execution plan on a continuing basis, and takes corrective action when variances from planning objectives arise. The service organization also reports program

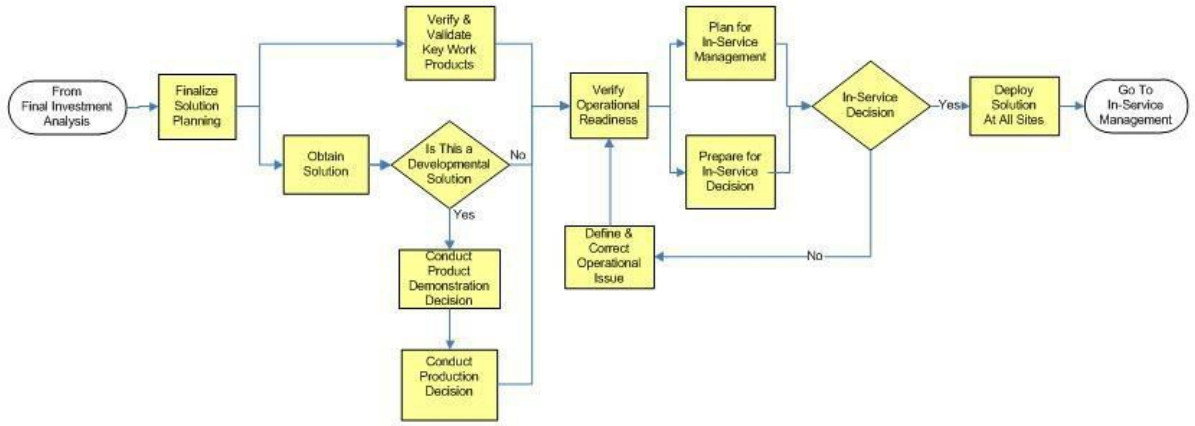
status at acquisition quarterly program reviews. The focus of these reviews is to identify high-risk issues requiring resolution and to ensure all actions necessary to achieve projected value and benefits are being executed satisfactorily, particularly those outside the control of the service organization. The service organization applies the principles of earned value management to development, modernization, and enhancement investment programs, and when applicable, uses audits to ensure contract costs are proper and allowable.

The service organization captures expenditures consistent with the program work breakdown structure fashioned during final investment analysis.

For those NAS investment programs progressing through solution implementation as elements of an operational capability, capture team members assess and report progress of each investment increment monthly to the portfolio manager. The portfolio manager reports status of the overall capability to the NextGen Management Board quarterly. These reviews focus on cost, schedule, or performance issues associated with every element of the operational capability. The portfolio manager recommends action for correction of cost, schedule, or performance shortfalls, and may propose the transfer of funding from one investment increment to another when necessary to improve the health and prognosis of the overall capability. The Joint Resources Council evaluates proposed baseline changes among investment increments at acquisition quarterly program reviews. Each service team or program office works with the capture team to ensure each investment increment provides the functionality and performance necessary to achieve the operational capability.

Solution implementation is organized into the activities shown in Figure 2.6-1.These activities are tailored to the special requirements of each investment program.

Figure 2.6-1 Key Activities of Solution Implementation



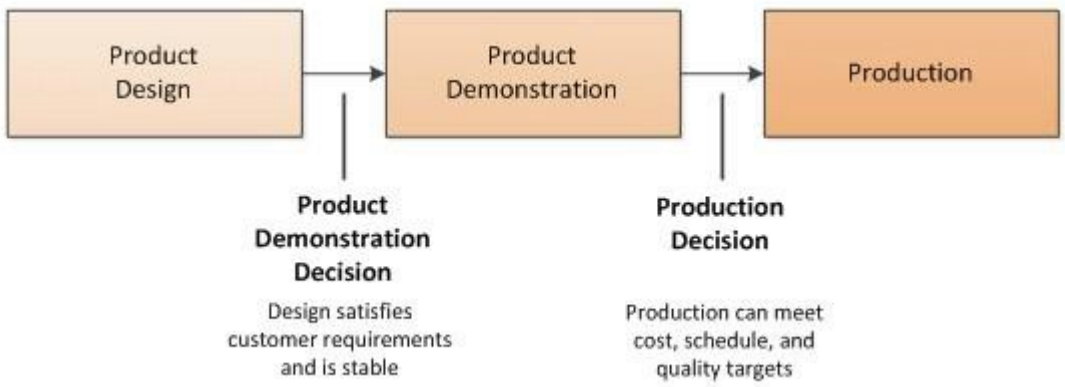
2.6.1 What Must Be Done Revised 4/2019

- **Finalize Solution Planning.** The service organization or program office reviews and updates program planning completed during final investment analysis (i.e., implementation strategy and planning document, work breakdown structure, ISR checklist). Key stakeholders participate in this activity to ensure planning is complete and realistic. For

example, if new systems are to be installed or existing facilities modified, service organization planners work with service-area offices so people and resources will be available when needed.

- **Obtain the solution**. The service organization or program office oversees and coordinates execution of tasks and activities necessary to achieve the benefits projected for the investment program within approved cost and schedule baselines. This includes such activities as contract award, contract administration, program management, resource management, risk management, systems engineering, logistics support, test and evaluation, and site acquisition and adaptation. It may involve developing operational procedures and standards; obtaining physical, personnel, and information security; modifying the physical infrastructure; and coordinating collateral action by the aviation industry.
- **Is This a Developmental Solution?** Investment programs that develop, modernize, or enhance systems or software follow the knowledge-based product development process shown in Figure 2.6.1-1. The following two decisions are intended to ensure the knowledge base is sufficiently mature to warrant proceeding to the next stage of implementation.

Figure 2.6.1-1 FAA Knowledge-Based Product Development Process



- **Conduct Product Demonstration Decision.** Table 2.6.1-1 defines the timing, decision authority, and decision criteria for authorizing full development and demonstration of the product.

Table 2.6.1-1 Timing, Decision Authority, and Decision Criteria for the Product Demonstration Decision

Timing	Decision Authority	Decision Criteria
After critical design review	Vice President or Director of the implementing service organization	Key product characteristics are defined Stakeholders agree that product design and functionality satisfy program requirements System design reviews are complete Engineering drawings are complete Detailed software/firmware design is complete, including critical software processes and threads RMA goals are defined and planning is complete

		Failure modes and effects analysis is complete Critical manufacturing processes are identified

- **Conduct Production Decision.** Table 2.6.1-2 defines the timing, decision authority, and decision criteria for authorizing full production of the product.

Table 2.5.1-2 Timing, Decision Authority, and Decision Criteria for the Production Decision

Timing	Decision Authority	Decision Criteria
After completion of operational testing	Vice President or Director of the implementing service organization *	First-article satisfies program requirements in an operational environment Data demonstrate that critical manufacturing processes and components will achieve RMA goals • First-article achieves contract RMA requirements • Stakeholders agree design is producible

***** Unless otherwise designated by the Joint Resources Council at the final investment decision.

- **Verify and Validate Key Work Products and Products.** The service organization or program office incrementally verifies and validates key work products and products of solution implementation, including the contract to obtain the capability, design documents, specifications, and actual product/product components. Verification and validation activity supports contract award, product demonstration decision, production decision, product acceptance, and the in-service decision.
- **Verify Operational Readiness.** The service organization or program office manages all activities necessary to install the solution at a designated test site(s) and test it thoroughly to verify operational readiness. Operational readiness encompasses operational effectiveness and operational suitability. Operational effectiveness measures how well the solution satisfies mission need and operational requirements. Operational suitability measures how well a product can be integrated and employed for field use, considering such factors as compatibility, reliability, human performance factors, maintenance and logistics support, safety, and training. For designated programs, operational readiness is also assessed by an independent operational assessment. The solution may be installed, as necessary, at the FAA Academy, FAA Logistics Center, and William J. Hughes Technical Center before the in-service decision. In rare cases and with proper justification, the service organization may request authority to install at other specific sites. This authorization does not affect the regular in-service review process culminating in a final in-service decision, which must be adhered to before a product can be placed into operational service through the declaration of operational readiness date (ORD) and commissioning.
- **Plan for In-Service Management**. The service organization or program office plans how it will sustain and manage deployed assets throughout their full lifecycle. This includes in-

service logistics support, post implementation review, and other evaluations of operational assets to measure performance, collection of performance data in support of acquisition quarterly program reviews, product sustainment strategy and actions, service- life extension, and eventual removal from service including site restoration.

- **Prepare for In-Service Decision.** The service organization or program office completes all activities necessary for the in-service decision. This includes resolution of all support issues identified by the operating service organization and integrated logistics management team; completion of management actions arising from the in-service review checklist and the independent operational assessment report (designated programs only); resolution of stakeholder issues; development of the in-service decision briefing and action plan; and concurrence of key stakeholders.
- **In-Service Decision Approved?** The in-service decision authority reviews operational test results, the status of in-service checklist items, the independent operational assessment (designated programs only), the perspective of key stakeholders, and other information deemed relevant to the in-service decision. If the in-service request is approved, deployment of the solution may begin. If the request is not approved, the service organization must correct any deficiency and return for the in-service decision upon verification that all outstanding issues have been resolved.
- **Define and Correct Operational Issues.** The service organization or program office takes whatever corrective action is necessary to resolve all remaining operational issues. This may involve a return to concept and requirements definition if correcting the issue involves a change to program requirements or to investment analysis if operational issues require a change to the acquisition program baseline or execution plan.
- **Deploy the Solution at All Sites.** The service organization or program office manages all activities necessary to deploy the solution at each site. This includes transportation and delivery of equipment, installation and checkout, contractor acceptance and inspection, integration, field familiarization, declaration of initial operational capability, joint acceptance and inspection, dual operations, declaration of operational readiness, and removal and disposal of obsolete equipment. Post implementation reviews are conducted at deployment sites to ensure user needs are satisfied, identify systemic problems that must be corrected, and determine whether cost, schedule, and benefits objectives are being achieved. The transition from solution implementation to in-service management extends over time, occurring at each site upon declaration of operational readiness or commissioning.

2.6.2 Outputs and Products Revised 4/2019

The primary outcome of solution implementation is a fully deployed and supported operational capability that satisfies requirements (including program requirements and designated specifications), is accepted by users, is compatible with other products and services in the field, and realizes the benefits in the final business case by fully addressing requirements in the final program requirements document. The following are typical products of solution implementation that support the fielding of a satisfactory operational capability:

- Annual updates of the OMB Major IT Business Case for designated programs;
- Continuous evaluation of progress against targets in the acquisition program baseline or execution plan (including status of critical performance requirements);
- Contracts that achieve investment objectives (i.e., cost, schedule, performance, and

benefits);

- Successful operational test and evaluation including a final report on the status of critical operational issues and requirements in the final program requirements document, and passing status of critical performance requirements;
- Successful independent operational assessment and report for designated programs;
- In-service decision, including the in-service decision briefing and action plan;
- Declaration of operational readiness and commissioning at each site;
- Program reviews and reports (e.g., baseline management, variance tracking; financial, schedule, performance; earned value, logistics measures, and risk management);
- In-service management plan;
- Monthly capture team assessments, when applicable; and
- Acquisition quarterly program reviews.

Key work products are verified and validated according to the FAA AMS Verification and Validation Guidelines before the in-service decision.

2.6.3 Who Does It? Revised 4/2019

Organization	Responsibilities
Performing service organization or program office	Manages all activities necessary to plan, obtain, and deploy the solution, and to obtain the in-service decision. This includes the award and management of contracts, continuing review and evaluation of progress relative to plan, and corrective action to achieve cost, schedule, and performance targets in the acquisition program baseline or execution plan. Updates program planning to address how the newly fielded capability will be sustained throughout in-service management Reports status of the investment program to the Joint Resources Council at acquisition quarterly program reviews
Operating service organization	Conducts joint acceptance and inspection or service acceptance (service contracts) at each site Declares operational readiness and commissions the solution into operational use
Key stakeholder organizations	Work with service organizations to identify and resolve all issues and concerns during solution implementation up to and including the in-service decision
Vice President of the service organization	Notifies the Vice President of ATO Safety and Technical Training when the product is ready for independent operational assessment via the independent operational assessment readiness declaration (designated programs only)
Director of Policy and Performance, ATO Safety and Technical Training	Evaluates operational readiness of the product and reports findings to the in-service decision authority (designated programs only)
Information Technology Shared Services Committee	Annually reviews OMB Major IT Business Cases for designated programs as part of the annual budget process
Office of	Independently scores all OMB Major IT Business Cases that will be

Information & Technology, Strategy & Performance Service, Investment Portfolio & CPIC Branch	submitted to the Office of Management and Budget through the Office of the Secretary of Transportation
Capture team members	Assess and report monthly to the portfolio manager the status of each investment increment contributing to an operational capability
Portfolio manager	Reports status of the operational capability to the NextGen management Board (NAS only) Recommends corrective action for cost, schedule, or performance shortfalls within all investment increments contributing to an operational capability

2.6.4 Who Approves? Revised 4/2019

Artifact	Approval Authority
Acquisition program baseline or execution plan changes	Joint Resources Council
OMB Major IT Business Case (designated information technology programs) OMB Major IT Business Case (designated non-information technology capital investments)	Chief Information Officer, Chief Financial Officer, Acquisition Executive Chief Financial Officer, Acquisition Executive
Product demonstration decision (if applicable)	Vice President or Director of the implementing service organization
Production decision (if applicable)	Vice President or Director of the implementing service organization, unless otherwise designated by the Joint Resources Council at the final investment decision

2.6.5 In-Service Decision Revised 7/2015

The in-service decision (ISD) authorizes deployment of a solution into the operational environment. It occurs after demonstration of initial operational capability at the key test site(s) and before initial operational capability at any non-key site or waterfall facility. The decision is made following completion of the certification of compliance with testing, information security, and safety requirements. It establishes the foundation for operational readiness to be declared at subsequent sites. The ISD uses results from test and evaluation that report on the verification and validation of performance requirements, critical performance requirements, critical operational issues, and operational readiness (e.g., safety, effectiveness, and usability). The in-service review

(ISR) checklist is used by the service organization to identify and resolve readiness issues before the ISD and to obtain concurrence from stakeholder organizations.

The Joint Resources Council is the ISD authority. At the final investment decision, the Joint Resources Council may delegate ISD authority to appropriate FAA officials. For any solutions or products that affect multiple organizations, a joint ISD authority may be designated. This decision is documented in the final investment record of decision.

Depending on the implementation strategy of the solution (e.g., phased implementation, segments, multiple releases, several smaller programs executed separately as a part of one solution), multiple ISDs may be required to ensure the operational readiness of each specific component of the overall solution. The ISD strategy is developed by the service team with help from the ISD Executive Secretariat, approved by the Joint Resources Council and documented in the implementation strategy and planning document. Follow-on revisions to the ISD strategy must be approved by the ISD authority.

The ISD is recorded in the record of decision. Action plans for resolving remaining operational readiness issues are included as an attachment to the record of decision. Status of action plans is tracked and reported to the ISD Executive Secretariat until all issues are resolved. Once all action plans are satisfactorily completed, the ISD Executive Secretariat provides a close-out memorandum.

Mission Support and Mission Support IT initiatives do not require an in-service decision nor a waiver from the In-Service Decision Executive Secretariat. Acceptance criteria will be agreed upon by the customer and the service delivery organization.

2.6.5.1 Entrance Criteria Revised 7/2013

The following artifacts are required for each in-service decision:

- Operational test report(s);
- Independent Operational Assessment Report for designated programs;
- ISR Checklist completed or action plans for those remaining open;
- Safety Risk Management Document approved;
- Information security certification and authorization or certification and authorization;
- Stakeholder concurrence on readiness for the ISD; and
- ISD briefing and action plans.

2.6.5.2 In-Service Decision Authority Actions Added 4/2013

The ISD Authority:

- Approves the ISD strategy for phased or segmented deployments;
- Agrees to the action plans;
- Makes the ISD; and
- Approves the Record of Decision.

2.7 In-Service Management Revised 4/2019

Activity during in-service management supports execution of the FAA mission of providing air traffic control and other services. This entails operating, maintaining, securing, and sustaining systems, products, services, and facilities in real time to provide the level of service required by users and customers. It also entails periodic monitoring and evaluation of fielded products and services, and feedback of performance data into service and investment analysis as the basis for revalidating the need to sustain deployed assets or taking other action to improve service delivery.

Service organizations are responsible and accountable for managing service delivery within their area of responsibility throughout in-service management. They bring together the multiple engineering, logistics, and other management specialists necessary to operate and sustain fielded systems, services, products, and facilities. This includes managing resources within specific geographic areas, and may involve emergency sustainment actions in response to natural disasters or other unanticipated events.

Service organizations have flexibility to sustain and enhance fielded capability. They may implement pre-planned product improvements or block upgrades as stipulated at the investment decision, and may use sustainment resources to upgrade components of fielded products as needed (e.g., printers or processors).

In-service management planning documents focus on actions and activities that support continued operation and maintenance of deployed assets. The documents clearly define in-service management activities such as configuration management, preventive and corrective maintenance, training, infrastructure support and logistics support, along with planned activities to support post implementation reviews and operational analyses.

Service organizations evaluate the safety, efficiency, and effectiveness of operational assets throughout in-service management as a basis for improving service delivery over time. This process begins with a post implementation review at one or more early operational sites to determine whether a new investment program is achieving its performance and benefit targets and whether it is meeting the service needs of customers. The primary objective is useful information on how best to eliminate flaws and optimize performance and benefits before deployment at additional sites. This evaluation process continues throughout in-service management with the periodic evaluation of operational assets to determine whether they are continuing to contribute to agency safety, performance, and cost goals or whether they should be modernized, replaced, or removed from service. These operational analyses are the basis for out- year planning in the service organization business plan, which integrates ongoing and planned investment activity with resources for the operation and sustainment of fielded assets over their service life. The overarching goal is the continued best use of agency resources to achieve FAA strategic and performance goals. Click here for links to post implementation review and operational analysis policy and guidance.

When a fielded capability is projected to be unable to satisfy service demand or when another solution offers improved safety, lower cost, or higher performance, the service organization initiates action to enter the service analysis process leading to a new investment decision. The key is to look far enough into the future so there is enough time to approve and implement a

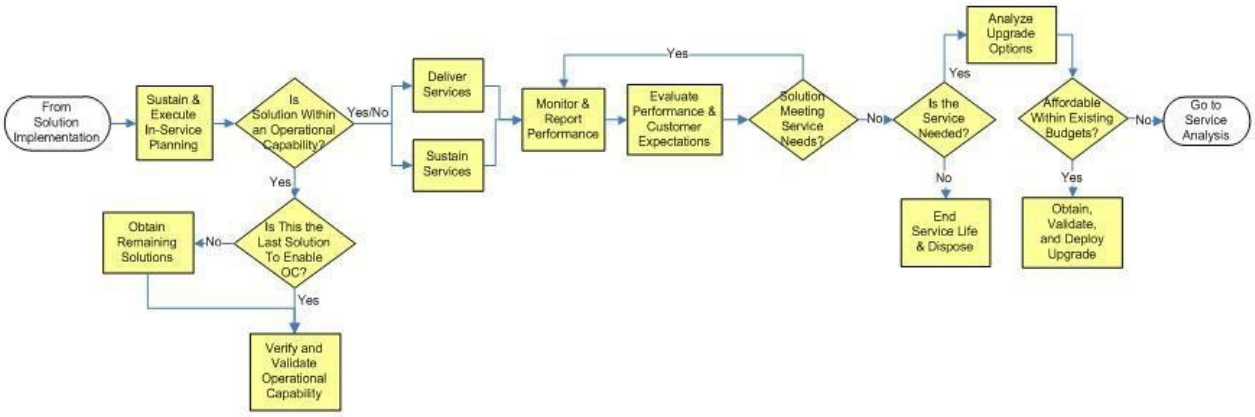
solution before the existing capability fails or becomes obsolete.

Service organizations must remove and dispose of fielded assets and services when they are no longer needed. This includes restoration of sites where obsolete products or services were deployed, disposal of government property, recovery of precious metals, and cannibalization of useful assets. The cost of removal and restoration is included in the acquisition program baseline or execution plan of the replacement program. If there is no replacement program, the cost must be otherwise factored into the service-area operating plan.

2.7.1 What Must Be Done Revised 4/2013

Figure 2.7.1-1 portrays the activities undertaken during in-service management. They are organized to deliver, sustain, and evaluate operational assets, and to take corrective action when they are projected to be unable to satisfy the service needs of users and customers or when they are becoming unsupportable or obsolete. The work flow includes actions to verify and validate achievement of projected benefits from an operational capability resulting from completion and integration of multiple investment increments.

Figure 2.7.1-1 Key Activities of In-Service Management



Sustain and Execute In-Service Planning. Service organizations review and update in-service planning documents as needed. This includes updating the OMB Major IT Business Case each year for designated programs. Annual updates reflect program changes and move the budget submission forward one year. The OMB Major IT Business Case must continue to achieve a passing score from the Office of Management and Budget.

- **Is Solution Within an Operational Capability?** When a recently deployed solution is not an increment necessary to achieve a complex operational capability, it is operated and sustained during in-service management as a stand-alone capability. When it is part of an operational capability, the agency validates that the projected benefits of the operational capability are being achieved once all supporting investment increments are in service.
- **Is This the Last Solution to Enable an Operational Capability?** If the recently deployed solution is the last investment increment necessary to implement an operational capability, a post implementation review is planned and executed to determine whether

the performance and benefits projected for the operational capability are being achieved and to identify what corrective action is needed when they are not.

- **Obtain Remaining Solutions.** All investment increments necessary to achieve the operational capability are obtained and deployed before verifying and validating that the performance and benefits of the operational capability are being realized.
- **Verify and Validate Operational Capability.** When the last investment increment of an operational capability is deployed and approved for operational service, the capture team oversees the integration of investment elements necessary to achieve the operational capability and verifies achievement of operational and performance benefits in the operational capability business case. Typically, a post implementation review will be planned and executed for this purpose. Results are presented to the NextGen Management Board, which determines whether performance of the operational capability meets agency expectations or whether further action is necessary.
- **Deliver Services.** The operational workforce provides air traffic control and other business services using infrastructure, procedures, and other assets as assigned and funded. This includes all safety-related quality assurance actions such as flight inspection, aircraft certification, establishing safety standards for operations, monitoring safety performance, issuing and maintaining certificates and licenses, and developing and revalidating procedures such as approach and landing procedures. Emergency sustainment actions are planned and executed whenever required. During emergencies, highest priority services are sustained even if performance goals for lower priority services cannot be met. In addition, physical, personnel, and information security is maintained at all FAA facilities. This includes environmental threat and facility assessment and accreditation in accordance with FAA internal security planning.
- **Sustain Services.** A variety of actions are undertaken by the FAA workforce during in-service management to ensure operational assets remain in good working order. These include:
  - Corrective and preventive maintenance, supply support, second-level engineering, depot-level repair, modification of hardware and software to improve performance, test and support equipment, and transportation of supplies.
  - Management and engineering actions to sustain and improve service delivery, correct deviations from cost and performance standards, and improve quality. These actions include modifications to hardware and software to solve latent or discovered technical problems, process changes to improve performance, planned block upgrades and product improvements, and sustainment actions that lower operating costs. It involves the management of personnel, information systems, money, logistics support, spare parts, technical resources, and other assigned assets. Management techniques include fiscal and workforce planning, contract award and administration, fiscal and program control, and process management to achieve cost, performance, and benefit objectives. All modifications to fielded assets must be in accordance with the enterprise architecture. If a planned modification requires a change to the architecture, appropriate amendments and products must be developed and approved.
  - Management and control of the configuration of all services and service components. This includes submission of NAS change proposals to the appropriate approval board to baseline, install, and manage changes to NAS systems, software, and equipment. It requires coordination with the appropriate systems engineering organization to ensure changes are compatible with and reflected in the enterprise

architecture.

- Sustainment of utilities, buildings, grounds, structures, roads, telecommunications, handling of hazardous materials, lightning protection, bonding, grounding, heating, cooling, and special access.
- Participation in cross-organizational planning to review, integrate, and prioritize the allocation of operational resources to fielded services and assets. The objective is to continue support for high-ranking service needs and reduce or terminate support for low-value or redundant assets. Recommendations are presented to the Joint Resources Council for approval.
- Acquisition and management of FAA-owned and leased properties, as well as management of non-federal facilities with external sponsors. This activity may involve the purchase or lease of buildings, structures, and grounds, as well as removal and disposal of no longer used equipment, systems, services, products, facilities, real property, and resources.

- **Monitor and Report Performance.** Post implementation review(s) at early deployment sites help determine whether performance and benefits are being achieved. When projections are not being realized, corrective action is planned and implemented. Periodic operational evaluations of fielded assets continue throughout in-service management to identify performance shortfalls, determine trends in the cost of ownership, identify adverse support trends, and solve systemic operational or support problems.
- **Evaluate Performance and Customer Expectations.** Operational evaluations are the basis for revalidating the merit of sustaining investment assets or the need for other action. Findings are fed back into service analysis, where it is determined whether to continue to sustain existing assets or recommend new investments to solve systemic problems in the service environment.
- **Solution Meeting Service Needs?** If the solution is meeting service needs and no supportability issues have emerged, the operational workforce continues to operate and sustain the solution, as well as monitor and evaluate it periodically. If supportability issues are emerging or the solution is projected to be unable to satisfy the service need, corrective action is initiated once it is verified the service is supported by the NAS ConOps during timeframe in question.
- **Is the Service Needed?** The operating service organization determines whether the service provided by the solution is still needed. In making this determination, the service organization reviews the NAS ConOps and enterprise architecture roadmaps to confirm the service will continue to be required in the timeframe any upgrade to the operational asset would cover.
- **End Service Life and Dispose of Unneeded Assets.** When an operational asset is replaced by new capability, the program office installing the new capability removes and disposes of replaced assets. When there is no replacement asset, the operating service organization removes and disposes of unneeded assets. Removal and disposal includes decommissioning, dismantling, and demolishing of systems and equipment; restoring sites including environmental cleanup and disposal of hazardous materials; disposing of government property; recovering precious metals; and reusing surplus assets.
- **Analyze Upgrade Options.** When the service is still needed, the service organization investigates ways to upgrade at-risk assets within existing operating budgets and determines whether additional investment funds are needed.
- **Affordable Within Existing Budgets?** When the operational asset can be modernized within existing budgets (e.g., a planned and funded product improvement, operational

funds), the upgrade is obtained, validated, and deployed. When new funds outside the scope of available resources are needed, the service shortfall enters service analysis to begin the search for a solution.

- **Obtain, Validate, and Deploy Solution Upgrade.** Any modification to fielded assets (e.g., block upgrade, planned product improvement, problem correction) must be accompanied by concomitant changes to key elements of the support infrastructure such as training, documentation, spare parts, and engineering support. This includes training for personnel who directly operate, maintain, or provide support functions. All key work products and products of in-service management, including NAS change proposals (includes actual changes/improvements to products and product components) and system support directives are verified and validated before an upgrade enters operational service. This includes the modified content of key work products and products that originate in other phases of the lifecycle, but are intended for use during in-service management. Verification and validation activity supports decisions to implement and deploy procedural or product improvements.

2.7.2 Outputs and Products Revised 4/2013

- Delivery of FAA enterprise services;
- Post implementation reviews and corrective action as needed to achieve investment performance and benefits;
- Periodic operational analysis of fielded assets including the effectiveness and efficiency of supply chain management;
- Periodic revalidation of the need to sustain fielded assets;
- Enforcement actions, baseline changes, and investment recommendations to maintain or improve service delivery;
- Change proposals to install systems, software, and equipment and to improve capability, safety, or efficiency in accordance with the enterprise architecture;
- Program technical reports and hardware discrepancy reports to correct hardware and software problems;
- Annual OMB Major IT Business Case submissions (designated programs only);
- Emergency sustainment actions to sustain high-priority capabilities and services;
- Up-to-date configuration records for fielded equipment;
- Annual report on critical operational needs;
- Periodic assessment of facility security enhancements;
- Action plans to remedy cost and performance shortfalls;
- Updated in-service management planning documents if needed; and
- Flight inspections, aircraft certification, and regulatory actions.

2.7.3 Who Does It? Revised 1/2015

Organization	Responsibilities
Service organization or program office	Provides and sustains services Manages resources to sustain fielded assets Manages preplanned product improvements Updates OMB Major IT Business Cases for the annual budget cycle (designated programs only);

	Reviews in-service management planning and updates as needed Manages the configuration of fielded assets consistent with FAA policy and the enterprise architecture Develops infrastructure for modifications to fielded assets, including training, documentation, spare parts, and repair Periodically assesses customer satisfaction as the foundation for improving service delivery Monitors quality, assesses performance, tracks cost, and identifies adverse support trends for fielded assets Periodically revalidates the need to sustain fielded assets or recommends other action such as upgrade, replacement, or decommissioning and removal Assesses the impact on sustainment of fielded assets resulting from delays in fielding a new capability Sustains the physical infrastructure
Office of Information & Technology, Strategy & Performance Service, Investment Portfolio & CPIC Branch	Reviews and scores OMB Major IT Business Cases as part of the annual budget cycle (designated programs only)
PIR Quality Officer	Oversees the quality, planning, conduct, and reporting of post implementation reviews
Integrated Logistics Management Team	Assesses the effectiveness of supply chain management and the support concept Recommends changes to logistics management to optimize service delivery at best value
ATO Technical Operations	Keeps operational assets in good working condition Conducts operational analyses periodically and feeds results into service analysis
William H. Hughes Technical Center	Designs, develops, tests, and fields changes to operational assets that correct recurrent trouble reports and other operational issues Provides second-level engineering
Mike Monroney Aeronautical Center	Provides supply chain management, depot support, logistics services, and training for operational assets Provides second-level engineering services
Capture team	Integrates investment increments necessary to obtain an operational capability Assists in the planning and verification that an operational capability is achieving the benefits specified in the operational capability business case

2.7.4 Who Approves? Added 4/2013

Artifact	Approval Authority
OMB Major IT Business Cases (designated information technology capital investments	Chief Information Officer, Chief Financial Officer, Acquisition Executive
OMB Major IT Business Cases (designated non-information technology capital investments	Acquisition Executive, Chief Financial Officer
In-service management planning documents	Vice President (ATO) or Director (non-ATO) of the operating service organization

2.8 Mission Support Operations-Funded Lifecycle Management Policy Added 1/2017

2.8.1 Overview Revised 10/2018

The Mission Support Operations-funded process establishes policy and guidance for all aspects of acquisition management for Federal Aviation Administration procurement of Mission Support Operations-funded capital investment initiatives. The objectives are to increase quality, reduce time, manage risk, and minimize the cost of delivering safe and secure Operations-funded capital assets and services. This policy promotes these objectives through partnership among service providers and customers to ensure FAA plans, programs, and budgets address priority agency and end-user needs.

Lifecycle acquisition management for Mission Support Operations-funded capital investments is built around a logical sequence of phases and decision points. The FAA uses these phases and decision points to determine and prioritize its needs, make sound investment decisions, implement solutions efficiently, and manage services and assets over their lifecycle. The overarching goal is continuous improvement in the delivery of safe, secure, and efficient assets and services over time. The Mission Support Operations-funded process is flexible and may be tailored by the Acquisition Executive Board (AEB), Joint Resources Council (JRC), or Operations Governance Board (OGB).

2.8.2 Governance Added 1/2017

2.8.2.1 Authority Revised 10/2018

The JRC oversees all capital investments at FAA regardless of funding appropriation whether Operations and Maintenance, Research, Engineering & Development, Airport Improvement Program, or Facilities and Equipment. The JRC delegates investment decision-making for Mission Support Operations-funded capital investments to the OGB. Mission Support strategy development is conducted by the Information Technology Shared Services Committee (ITSSC), which also oversees the performance of information technology investments.

2.8.2.2 Scope Revised 10/2018

The OGB oversees investment initiatives with the following three attributes:

- Mission Support
  - Investments not included in the NAS Enterprise Architecture
  - Investments included in the Mission Support Enterprise Architecture
  - Investments not included in either architecture, but deemed within scope by the OGB or JRC

- Operations-funded
  - Investments that providers intend to fund entirely from the Operations and Maintenance account

- Capital Investment
  - Acquisition of a new or modernized FAA product, system, or service that results in a capital asset such as land, structures, equipment, or intellectual property (including software)
  - Typically has a useful life of two years or more
  - Generally does not include investments associated with the repair, operation, or maintenance of previously fielded assets

While capital investments are generally funded out of the Facilities and Equipment account, FAA Order 2500.8B specifies that the Operations account can fund capital purchases to support administrative functions. The OGB oversees these investments.

2.8.2.3 Operations Governance Board Revised 10/2018

Through delegation from the JRC, the OGB is the investment decision authority for Mission Support Operations-funded capital investments. It has permanent members from the following organizations:

- Acquisitions & Business Services (ACQ)
- Investment Planning and Analysis (AFI-1)
- Chief Counsel (AGC)
- Air Traffic Organization (ATO)
- Aviation Safety (AVS)
- Information and Technology Services (AIT)

Representatives from the appropriate line of business attend OGB meetings ad hoc when the investment initiative relates to their business or organizational interests.

2.8.2.4 Planning Artifacts Revised 4/2019

The following planning artifacts are required for all Mission Support Operations-funded capital investment initiatives:

- Intake Form
- Management Plan
- Functional and Non-Functional Requirements
- Government and Market Survey
- Acquisition Strategy
- Scaled Business Case

Templates and instructions for these artifacts are located on the FAA Acquisition System Toolset at: http://fast.faa.gov/

Artifacts and artifact requirements may be tailored by the AEB, JRC, or OGB.

2.8.2.5 Roles and Responsibilities of Key Participants Revised 10/2018

- Acquisition Readiness Team (ART) - advises and supports customers to develop planning artifacts for Mission Support Operations-funded capital investment initiatives. Typically, ART assists those investments assigned Governance Path C unless otherwise designated by the OGB.

- Shared Services Mission Support Information Technology Portfolio Assessment Subcommittee (reports to ITSSC) - monitors post-decision performance of Mission Support Operations-funded capital investments in accordance with the artifacts provided to support OGB investment commitment decisions. It reports progress, constraints, and challenges to key stakeholders and FAA executives.

- OGB Secretariat – conducts preliminary risk reviews for the purpose of making governance path recommendations to the OGB and provides administrative support and technical advice to the OGB.

- Business Partnership Manager – manages customer relations for AIT to capture new customer needs.

- Customer – any FAA organization seeking to execute a Mission Support Operations-funded capital investment. The customer is responsible for completing the required planning artifacts, securing OGB approvals, and retaining planning artifacts and related decision

documents with investment program records.

2.8.2.6 Governance Paths Revised 10/2018

The OGB assigns a governance path to each Mission Support Operations-funded capital investment.

Governance Path A – The OGB determines the initiative poses very low risk and low funding requirements. The program office or service organization is directed to complete the appropriate planning artifacts as directed by the OGB and proceed to solution development and deployment at the governance path readiness decision. Completion of planning artifacts is mandatory although there is no independent confirmation other than random spot checks and reviews.

Governance Path B – The OGB determines the initiative poses low to medium risk and higher funding requirements. The program office or service organization is directed to complete all planning artifacts and any OGB-directed checklist items. Approval to proceed may occur at the governance path readiness decision pending verification by the OGB Secretariat that all planning artifacts and checklist items have been completed. Completion of planning artifacts is mandatory and after verification, the investment is subject to random spot checks and reviews.

Governance Path C – The OGB determines the initiative poses medium to high risk and high funding requirements. The program office or service organization is directed to work with an ART to prepare all planning artifacts and any OGB-directed checklist items. The initiative returns to the OGB for a business case decision once all planning artifacts are confirmed as complete and of high quality by the ART and OGB Secretariat. The OGB may approve the program to enter the deployment phase or it may direct further work on the planning artifacts to be presented at the investment commitment decision. Completion of planning artifacts is mandatory and after approval, the investment is subject to monitoring by the Acquisition Policy and Oversight organization (AAP) and ITSSC.

2.8.3 Mission Support Operations Funded Process Revised 10/2018

The following phases and decision points constitute the Mission Support Operations-funded process. The actual path taken by each investment initiative depends on the governance path assigned by the OGB.

Figure 2.8.3

2.8.3.1 Need Assessment Revised 10/2018

If the proposed investment is subject to OGB oversight, lines of business / business owners complete an intake form describing the project name, business owner contact information, estimated lifecycle costs, business problem/need description, business drivers/mandates, and when the product needs to be delivered to the user community. The intake form is submitted to the OGB Secretariat at least 21 days before the commitment of funding to any contract, task order, or inter-agency agreement (IAA) in support of the proposed project. The OGB Secretariat reviews the intake form and recommends a governance path for the initiative to the OGB. The FAA Information Technology (AIT) organization will not authorize funds to be expended on behalf of any Path C investment prior to receiving an OGB decision.

2.8.3.2 Governance Path Readiness Decision (decision point 1) Revised 10/2018

At the governance path readiness decision, the OGB assigns a governance path to the investment. Based on the approved governance path, the OGB may assign an ART to support the customer to complete the required planning artifacts and any other OGB-directed checklist items.

Entrance Criteria:

- Intake Form

The OGB:

- Approves the governance path recommended by the OGB Secretariat and assigns an ART (if applicable) with representatives from relevant stakeholder organizations; or
- Selects an alternative governance path based on OGB member consensus; or
- Returns the initiative to the sponsoring line of business for additional discovery (e.g., requirements definition or additional market research).

2.8.3.3 Alternatives Analysis Revised 10/2018

The sponsoring line of business / business owner creates the required planning artifacts with support from an ART (if assigned) for the investment initiative. The analysis typically often focuses on alternative acquisition approaches not necessarily on technical alternatives. An ART assesses whether the alternative emerging from the analysis fits within the overall agency strategy for obtaining the operational capability and can provide the performance and functionality needed by users.

The results of alternatives analysis helps the OGB determine which potential investments would improve agency operations and deliver desired outcomes to end users. This supports sound capital investment planning, which guides and prioritizes current and future Mission Support, Operations-funded projects. These analyses also help refine and mature agency plans by providing decision-makers with a clear picture of investment opportunities and their risks and value.

2.8.3.4 Business Case Decision (decision point 2) Revised 4/2019

At the business case decision, the OGB validates that the preliminary scaled business case fits within the overall agency strategy for obtaining the operational capability and can provide the performance and functionality needed by users.

Entrance Criteria:

- Functional and Non-Functional Requirements
- Government and Market Survey
- Preliminary Scaled Business Case

The OGB:

- Approves the investment to enter solution development to complete planning artifacts along with any additional OGB-directed requirements, or
- Returns the investment to alternatives analysis to refine or modify planning artifacts, or
- Recommends the initiative be paused, modified, or cancelled.

2.8.3.5 Solution Development Revised 10/2018

The sponsoring line of business / business owner with support from an ART (if assigned), reviews and revises required planning artifacts, verifies their completeness and accuracy, and executes any other direction from the OGB (e.g., prepares request or offer, task order, or interagency agreement).

2.8.3.6 Investment Commitment Decision (decision point 3) Revised 4/2019

At the investment commitment decision, the OGB accepts the final required planning artifacts and approves the investment for deployment or rejects the planning artifacts and specifies any further required actions.

Entrance Criteria:

- Final scaled business case
- Management Plan
- Acquisition Strategy

The OGB reviews the final scaled business case and other planning artifacts ensuring the investment presents an opportunity to improve operating capability, satisfy customer service needs, and is a sensible use of agency resources. It then:

- Approves the project to enter deployment, or
- Returns the initiative to the solution development phase for additional work, or
- Recommends the initiative for termination.

2.8.3.7 Deployment Revised 4/2019

Deployment begins at the investment commitment decision when the OGB approves an investment program and recommends the line of business / business owner proceed with implementation. The deployment phase ends when the new service or capability is operational at all locations.

The overarching goal of deployment is to satisfy requirements in the Functional and Non-Functional Requirements document and to fulfill the Management Plan approved by the OGB. The line of business is ultimately responsible for end user acceptance. To achieve this, it must work with key stakeholders, especially end users, throughout deployment to resolve issues as they arise.

Actions outside the control of the line of business (e.g., regulatory changes) are recorded in the acquisition strategy and tracked at program reviews throughout deployment. Activities undertaken during this phase vary widely and are tailored for the solution or capability being implemented.

2.8.3.8 Operation and Retirement Added 1/2017

The operating service organization operates, maintains, secures, and sustains systems and services in real time to provide the level of service required by users and customers. The providing line of business oversees and manages service delivery within their area of responsibility. This includes managing resources within specific geographical areas, and may involve emergency sustainment actions in response to natural disasters or other unanticipated events.

When a fielded capability is projected to be unable to satisfy service demand or when another solution offers improved safety or security, lower cost, or higher performance, the providing line of business initiates action to enter the need assessment phase leading to a new initiative. The providing LOB must remove and dispose of fielded assets and services when they are no longer needed. This activity includes restoration of locations where obsolete products or services were deployed, proper disposal of government property and records, recovery of precious metals, and cannibalization of useful assets.

3 Procurement Policy

3.1 Overview

3.1.1 Introduction Revised 7/2007

The goal of the Federal Aviation Administration procurement system is to obtain high quality products, services, and real property in a timely, cost-effective manner, at prices that are fair and reasonable. The procurement system enables the FAA to be innovative and creative so that the right vendor is selected to implement a solution. The FAA procurement system is an integrated part of the lifecycle management process. The FAA procurement system focuses primarily on identifying sources, awarding, and administering contracts.

The FAA procurement system emphasizes competition, selects the vendor with the best value and provides a protest forum through the FAA's Dispute Resolution system. Open communications with industry from initial planning to contract award are the cornerstones of the process.

Procurement documents are tailored to individual requirements and screening improves source selection by focusing efforts on those offerors most likely to receive an award. The procurement system emphasizes "common sense" decision-making, flexibility, business judgment, and a team concept for managing procurements. Service organizations have the proper level of authority to make decisions and are responsible and accountable for their actions.

The FAA's procurement system provides policy and guidance for executing contracts and agreements to acquire products, services, and real property. In support of the FAA's mission, the Administrator, or designee, has broad discretion to select contractors who provide products, services, and real property. Procurement officials should follow the policy and guidance contained herein but, based on prudent discretion and sound judgment, may employ any procedures that do not violate applicable statutes or regulations. The National Acquisition Evaluation Program strategically monitors the implementation of procurement requirements by periodically evaluating acquisition processes in support of FAA efforts to improve the quality of procurement practices.

3.1.2 Applicability

The FAA procurement system applies to all procurements conducted by the FAA, as set forth herein with the exception of assistance relationships, such as grants and cooperative agreements.

3.1.3 Fundamental Principles Revised 7/2013

The FAA procurement system will:

- Enable the selection of the contractor with the best value to satisfy the FAA's mission;
- Focus on key discriminators between vendors and their products or services to ensure timely, cost efficient, and quality contract performance;
- Promote discretion, sound business judgment, and flexibility at the lowest levels while maintaining fairness and integrity;
- Encourage the procurement of commercial and non-developmental items;
- Provide streamlined methods and initiate innovative processes to conduct timely and cost-effective procurements;
- Promote open communication and access to information throughout the procurement process and encourage use of electronic methods for information exchange;
- Encourage competition as the preferred method of contracting;
- Permit single-source contracting when necessary to fulfill the FAA's mission;
- Allow the use of a range of contract types and transactions best suited to a particular procurement;
- Authorize the use of purchase cards consistent with prudent business practice;
- Provide attainable and reasonable opportunities for small businesses and small businesses owned and controlled by socially and economically disadvantaged individuals in consultation with the Department of Justice to ensure compliance with the constitutional standards established by the Supreme Court in *Adarand Constructors v. Peña*, as well as the President's July 19, 1995, directive to the heads of executive departments and agencies on the "Evaluation of Affirmative Action Programs;"

- Provide an internal process for resolving protests and disputes in a timely, cost-effective and flexible manner;
- Promote high standards of conduct and professional ethics;
- Require appropriate file documentation to support business decisions;
- Assure adequate checks and balances; and
- Ensure public trust.

3.1.4 Contracting Authority Revised 10/2014

Pursuant to the Federal Aviation Administration Reauthorization Act of 1996, Public Law 104-264, the Administrator is the final authority for carrying out all functions, powers, and duties of the Administration relating to the acquisition and maintenance of property and equipment of the Administration. The Administrator has broad authority "to enter into and perform such contracts, leases, cooperative agreements, or other transactions as may be necessary to carry out the functions of the Administrator and the Administration . . .with any Federal agency, or any instrumentality of the United States, any territory, or possession, or political subdivision thereof, any other governmental entity, or any person, firm, association, corporation, or educational institution, on such terms and conditions as the Administrator may consider appropriate."

The FAA Administrator may establish contracting activities and delegate to the Acquisition Executive broad authority to manage FAA's contracting functions. The Acquisition Executive is authorized to appoint Chief(s) of the Contracting Office (COCO) and redelegate the contracting authority to the COCO. The COCO may request that the Acquisition Executive further redelegate contracting authority to individuals within the COCO’s management or service area such as procurement and real property contracting officers, logistics management specialists, and managers of the purchase card program.

All individuals who are delegated contracting authority must have met the training requirements of the AMS and have demonstrated the appropriate knowledge and experience needed to execute this authority on behalf of the Government. Except for the purchase card program manager, these individuals may not redelegate their contracting authority. Contracting authority must be delegated to Contracting Officers or other qualified persons with a written warrant or other certificate of appointment. Contracts, agreements, grants and other transactions may be entered into and signed on behalf of the FAA by Contracting Officers only, or other qualified persons with a written certificate of appointment. The certificate of appointment must expressly state the types of transactions and limitations authorized by the delegation. Absent specific authority in the delegation, that authority does not exist. Information on the limits of the contracting officer's authority must be readily available to the public and FAA personnel.

The Contracting Officer must have warrant authority commensurate with the total estimated potential value (see Appendix C) of a transaction. Modifications after the original award are considered standalone actions when calculating the total estimated potential value; a Contracting Officer’s warrant must have a dollar limitation sufficient to award the total value of a modification, but not the entire value of the contract, order, lease, or agreement.

Key contracting duties and responsibilities are to be separated among individual people. For a particular requirement, the same person must not requisition, certify funds availability, approve,

and obligate funds.

3.1.5 Conflict of Interest Revised 10/2008

Any member of a service organization or Office of Dispute Resolution for Acquisition (ODRA) who is a Federal employee that has a real or apparent conflict of interest must withdraw from participation in the procurement process when required by law (18 U.S.C. 208) or regulation (5 CFR Part 2635). To sustain the integrity of the procurement process, non- Federal members of a service organization or ODRA are held to the same standards.

3.1.6 Disclosure of Information Revised 10/2008

Source selection information and proceedings must not be discussed outside the service organization. The Source Selection Official (SSO) must determine the extent to which source selection information is disclosed and must execute a certificate of nondisclosure as appropriate.

3.1.7 Organizational Conflicts of Interest

The policy of the FAA is to avoid awarding contracts to contractors who have unacceptable organizational conflicts of interest. The FAA will resolve organizational conflict of interest issues on a case-by-case basis; and when necessary to further the interests of the agency, will waive or mitigate the conflict at its discretion.

3.1.8 Procurement Integrity Act Revised 1/2019

FAA is subject, with modifications as described in the AMS Guidance with FAA-specific language, to the Procurement Integrity Act (41 U.S.C. §§ 2101-2107).

3.1.9 Electronic Commerce in Contracting Revised 7/2018

The FAA may use electronic commerce, including electronic signatures, to conduct and administer procurement actions. The Electronic Signatures in Global and National Commerce Act (E-SIGN) provides equivalency between legally-required written records and the same information in electronic form.

Unless waived by the Chief of the Contracting Office, the FAA's official contract file for contract actions on or after October 1, 2013 must be created in electronic format, and stored and maintained in the “Electronic Document Storage (eDocS) system,” the single repository for paperless contract files. Purchase card transactions, awards made by Real Estate Contracting Officers, awards made by personnel with Delegations of Procurement Authority and files that are required to be created or maintained in paper format such as documents associated with certain real estate transactions and documents requiring a raised seal signifying authenticity are excluded from this requirement.

Based on the National Institute of Standards and Technology (NIST) Policy Statement on Hash Functions dated August 5, 2015, the FAA must stop using Secure Hash Algorithm 1 (SHA-1) for generating digital signatures, generating time stamps and for other applications that require collision resistance. Further guidance on the use of SHA-1 is in NIST Special Publication (SP) 800-131A, Revision 1, dated November 6, 2015.

FAA must use SHA-256 or higher for the generation of digital signatures, generating time stamps, and other applications that require collision resistance. NIST provides further guidance on the use of SHA-256 in NIST SP 800-57 Part 1, section 5.6.2 as amended and SP 800-131A, Revision 1. Additional guidance on the use of SHA-3 is in NIST SP 800-185 as amended.

FAA may still use SHA-1 for the following applications: Verifying old digital signatures and time stamps, generating and verifying hash-based message authentication codes (HMACs), key derivation functions (KDFs), and random bit/number generation.

3.2 Contracting

3.2.1 Procurement Planning

3.2.1.1 Applicability Revised 4/2013

Written procurement plans are required for all FAA procurements except: real property, utilities, purchase card transactions and transactions less than $25,000. The specific content of a procurement plan may vary depending on the complexity of the procurement. The procurement planning templates in AMS must be used. Template A must be used for all simplified and commercial procurements and Template B must be used for all complex and non-commercial procurements.

3.2.1.2 Policy Revised 11/2009

Procurement planning is an indispensable component of the total acquisition process. Service organizations are expected to use procurement planning as an opportunity to evaluate/review the entire procurement process, so that sound judgments and decision-making will facilitate the success of the overall program. For procurements not covered by an implementation strategy and planning document, procurement planning should be appropriate and proportionate to the complexity and dollar value of the requirement.

3.2.1.2.1 Market Analysis Revised 4/2013

The purpose of market analysis is to initiate industry involvement, develop and refine the procurement strategy, obtain price information, determine whether commercial items exist, determine the level of competition, identify market practices, or obtain comments on requirements. The magnitude and degree of formality of the market analysis should be proportionate to the contemplated procurement. The market analysis may be as simple as a telephone call or as formal as a market survey advertisement to learn of industry capabilities. All

market analyses, formal or informal, should be appropriately documented.

3.2.1.2.2 Procurement Plan Revised 4/2013

A plan for each contemplated procurement or class of procurements should address the significant considerations of the procurement action. A procurement plan may cover more than one contract. The procurement plan represents the service organization agreement for conducting the procurement. See paragraph 3.2.1.1 for documentation requirements.

3.2.1.2.3 Consideration of Agency Wide Contracts Revised 1/2014

Agency Wide Contracts must be used to the maximum extent possible. The procurement plan must document which agency wide contracts were considered. If an applicable agency wide contract is available for utilization and is not utilized; the procurement plan must include the rationale for not utilizing the existing agency wide contract.

3.2.1.2.4 Independent Government Cost Estimate Revised 1/2017

An independent Government cost estimate (IGCE) is required for any anticipated procurement action (to include modifications) whose total estimated value is $150,000 or more, except for:

- Modifications exercising priced options or providing incremental funding;
- Delivery orders for priced services or supplies under an indefinite-delivery contract;
- Acquisition of real property (i.e., land or space); or
- Supplies or services with prices set by law or regulation.

The Contracting Officer (CO) may require an IGCE for procurement actions (to include modifications) anticipated to be less than $150,000.

3.2.1.3 Guidance and Principles Revised 11/2009

For procurements not covered in a program with an implementation strategy and planning document, the following elements should be considered in planning for procurements.

3.2.1.3.1 Development

Preference should be given to using commercial and previously developed items whenever possible. Development of a product, and its associated costs and risks, should be avoided unless necessary to meet FAA needs. If developmental items are required, the need should be documented in the procurement plan.

3.2.1.3.2 Scope of Procurement

The scope of a procurement in terms of complexity, period of performance, dollar value, risk, and other factors should be considered in planning a procurement. As the scope of a procurement increases, the risk of unsuccessful management of the procurement also increases. Appropriate trade-offs should consider elements such as: managing a large complex procurement versus several smaller phased procurements; the systems integration role; total systems responsibility; timing of benefits; technological obsolescence; and other factors.

3.2.1.3.3 Budget Allocation Release

Consideration should be given to releasing contract-related budget information to industry in situations where the procurement involves development or multiple-year funding and is likely to be conducted competitively. If the service organization decides to release the information, the decision should be identified in the procurement plan.

3.2.1.3.4 Quality Assurance

For complex systems or hardware acquisition, the service organization should coordinate with representatives of the Quality Assurance office as soon as procurement requirements are defined, to establish quality assurance requirements for the proposed procurement.

3.2.1.3.5 Labor Relations

When planning procurements, the service organization should comply with applicable FAA labor relations directives.

3.2.1.3.6 Maintaining Competition

Consideration should be given to methods of maintaining competition throughout the lifecycle of any product or service. Methods to be considered may include dual sourcing, obtaining reprocurement data and data rights, open system designs, and any other appropriate methods.

3.2.1.3.7 Single-Source Approval Revised 11/2009

The service organization determines whether the procurement should be conducted on a competitive or single source basis. The rationale for the single source procurement should be included in the implementation strategy and planning document or the procurement plan. If an implementation strategy and planning document is not required and the service organization determines that based on the complexity of the procurement a procurement plan will be established, the procurement plan should include the justification for the single-source decision. Approval of the implementation strategy and planning document or the procurement plan constitutes approval of a single-source procurement; no further approval or documentation is necessary.

3.2.1.3.8 Pre-Release of Documents

Early release of program documents can be an important part of communication with industry. Releasing draft functional requirements, draft specifications, or a draft screening information request (SIR) can be beneficial to industry, as well as the FAA. Early and more complete releases of the SIR and feedback from industry should be part of the market analysis strategy.

3.2.1.3.9 Reserved

3.2.1.3.10 Reserved

3.2.1.3.11 Public Announcements Revised 6/2006

3.2.1.3.11.1 General Revised 1/2017

All procurements anticipated to exceed $150,000 must be publicly announced on the Internet or through other means. This requirement does not apply to noncompetitive awards to Socially and Economically Disadvantaged Business (SEDB) (8(a)) firms and Service-Disabled Veteran Owned Small Business (SDVOSB) firms, emergency single source actions, purchases from an established qualified vendor list (QVL) or FSS, exercise of options, or changes. For actions not anticipated to exceed $150,000, a public announcement is optional if it is not required by 3.2.1.3.11.2.

3.2.1.3.11.2 Procurements Involving Products from Federal Prison Industries Revised 7/2008

All procurements of products available from Federal Prison Industries (FPI) anticipated to exceed $10,000 must be publicly announced on the Internet or through other means, including procurements where FPI products are determined not to be the best value to FAA at the market survey stage. This requirement does not apply to a procurement that satisfies an exception in AMS Policy 3.8.4.2 (concerning procurement of FPI products).

3.2.1.3.12 OMB Circular A-76, Performance of Commercial Activities.

OMB Circular A-76 (Revised), "Performance of Commercial Activities," establishes Federal policy for the competition of commercial activities. Inherently governmental activities are to be performed with Government personnel, but activities identified as not inherently governmental in nature are to be subjected to competition to determine if such activities should continue to be performed by Government personnel. The FAA will follow the policies of the Circular to the extent that such policies are consistent with FAA's statutory authority.

3.2.1.4 Chief Financial Officer Requirements Revised 1/2011

3.2.1.4.1 Contract Line Item Structure Added 1/2011

The Chief Financial Officer Act of 1990 requires FAA to furnish annual financial statements reflecting the assets of the agency to the Office of Management and Budget. To generate information needed for accurate financial statements, service organizations must establish appropriate contract line item structure and billing mechanisms for contracts so the agency can accurately state the value of its assets, and assure related accounting classifications are included on financial documents.

3.2.1.4.2 Chief Financial Officer Approval Added 1/2011

The Chief Financial Officer has approval authority over all proposed procurement actions of $10 million or more.

3.2.1.5 Disaster or Emergency Preparedness and Response Revised 7/2007

3.2.1.5.1 Local Area Set-Asides for Disaster or Emergency Added 7/2007

The Contracting Officer may set-aside procurements for competition among only offerors residing or doing business primarily in a geographic area where the President has declared a major disaster or emergency.

3.2.1.5.2 Continuity of Services-Mission Critical Contracts Added 7/2007

FAA may designate mission critical contracts that require continued contractor performance during times of National Emergency or Incidents of National Significance, such as pandemic influenza. These contracts must include provisions and contractor plans detailing how essential services or supplies will still be adequately delivered.

3.2.2 Source Selection

3.2.2.1 Applicability

Source selection policy and guidance apply to acquisitions for products and services except for real property, utilities, and agreements. There are two competitive procurement methods available for obtaining products and services through the FAA contracting process.

The first method is described under Complex and Noncommercial Source Selection and is used for complex, large dollar, developmental, noncommercial items and services. This is the method that typically would be used for investments approved by the Joint Resources Council.

The second method is described under Commercial and Simplified Purchase Method and, is typically used for commercial items that are less complex, smaller in dollar value, and shorter term. Such products or services may be routine in nature and are generally purchased on a fixed price basis.

3.2.2.2 Policy Revised 7/2019

The FAA procures products and services from sources offering the best value to satisfy FAA's mission needs. Considering complexity, dollar value, and availability of products and services in the marketplace, FAA has flexibility to use any method of procurement deemed appropriate to satisfy FAA's mission.

The FAA provides reasonable access to competition for vendors interested in doing business with FAA. Competition among two or more sources is the preferred method of procurement. When competition is not feasible, procurements may be on a single source basis if there is a documented rationale for the decision; documentation for this decision is not required for procurements with a total estimated value of less than $10,000.

Except for those acquisitions where the agency purchase card is being used as the procurement vehicle, or those acquisitions subject to AMS 3.8.4.2, acquisitions with a total estimated value exceeding $10,000 but not over $150,000 are reserved exclusively for competition among socially and economically disadvantaged business [SEDB/(8(a))] vendors and/or Service-Disabled, Veteran-Owned Small Businesses (SDVOSBs), pursuant to AMS policy 3.6.1.3.4. If the CO determines that an SEDB/(8(a)) or SDVOSB set-aside is not in FAA's best interest due to quality, market prices, or delivery, then the decision must be documented.

The CO must issue a public announcement informing industry of FAA's procurement strategy before, or concurrent with, releasing an initial SIR. Each SIR must contain specific evaluation criteria that FAA will use to evaluate offeror's submittals. When using complex and noncommercial source selection methods, FAA must include past performance as an evaluation factor. If appropriate, FAA may use process capability of suppliers as an evaluation factor according to established criteria. Cost or price considerations must be an evaluation factor in all final selection decisions. Any request for offer (RFO) must include a requirement for a formal cost or price proposal. The source evaluation team must document the findings of the evaluation. The source selection official (SSO) must base all selection or screening decisions on evaluation criteria established in each SIR. The CO must conduct debriefings with all offerors that request them.

Responsible contractors only may receive awards. To be determined responsible, a prospective contractor:

- Has or can obtain adequate financial resources to perform a contract;
- Has the ability to meet any required or proposed delivery schedules;
- Has a satisfactory performance history;
- Has a satisfactory record of integrity and proper business ethics;
- Has appropriate accounting and operational controls that may include, but are not limited to: production control, property control systems, quality assurance programs, and appropriate safety programs; and
- Is qualified and eligible to receive an award under applicable laws or regulations.

The CO's signing of the contract constitutes a determination that the prospective contractor is

responsible with respect to that contract. When an offer is rejected because the prospective contractor is non-responsible, the CO must make a determination of non-responsibility. The CO has broad discretion in making this determination.

3.2.2.3 Complex and Noncommercial Source Selection

This section establishes the FAA's policy for evaluating and selecting sources for the award of complex, noncommercial competitive contracts. This process consists of up to five distinct phases, with the screening phase being the cornerstone. The five phases are:

- Planning;
- Screening;
- Selection;
- Debriefing (as requested); and
- Lessons learned.

3.2.2.3.1 Selection Phases

3.2.2.3.1.1 Planning

Refer to the procurement planning section for further guidance.

3.2.2.3.1.2 Screening

Screening is the process by which the FAA will determine which offeror provides the best value to the FAA. The process is flexible and allows selection and award after one screening request. This process allows the FAA to make an award considering only price and the price-related factors included in the SIR. The number of distinct screening steps for a particular procurement will vary, based on the complexity of the procurement. Provided below is guidance associated with the screening phase.

3.2.2.3.1.2.1 Screening Information Request Revised 7/2007

The purpose of the SIR is to obtain information, which will ultimately allow the FAA to identify the offeror that provides the best value, make a selection decision, and award the contract to conclude the competitive process. A SIR is a request by the FAA for documentation, information, presentations, proposals, or binding offers. Three categories of SIRs (see below) may be used according to the procurement strategy adopted by the service organization. Once the public announcement has been released, the SIR may be released to start the competitive process. The service organization will determine the type(s) of SIR(s) that are appropriate for each procurement.

For a given procurement, the FAA may make a selection decision after one SIR, or the FAA may have a series of SIRs (with a screening decision after each one) to arrive at the selection decision.

This will depend on the types of products and services to be acquired and the specific source selection approach chosen by the service organization. When it is desired to make a selection decision after one SIR, that SIR should be a request for offer (see below). In general when multiple SIRs are contemplated, the initial SIR should request general information, and future SIRs should request successively more specific information.

Initial SIRs need not state firm requirements, thus allowing the FAA to convey its needs to offerors in the form of desired features, or other appropriate means. However, firm requirements ultimately will be established in all contracts.

Each SIR should contain the following information:

- Paper Reduction Act number OMB No. 2120-0595 on the cover page.
- A statement identifying the purpose of the SIR (request for information, request for offer, establishment of a QVL and screening).
- A definition of need,
- A request for specific information (with specific page and time limitations, if applicable),
- A closing date stating when submittals must be received in order to be considered or evaluated,
- Evaluation criteria (and relative importance, if applicable),
- A statement informing offerors how communications with them will be conducted during the screening, and
- An evaluation/procurement schedule (including revisions, as required).

The evaluation/procurement schedule should be realistic and should alert the offerors to the fact that the FAA plans to adhere to its schedule and that offerors interested in award will be expected to adhere to this schedule.

There are three categories of SIRs: qualification information, screening information, and request for offers. Each category of SIR is discussed in detail below.

Qualification Information

Qualification information, used to qualify vendors and establish qualified vendor lists (QVLs), should be requested only if it is intended that the resultant QVL will be used for multiple FAA procurements.

Qualification information screens for those vendors that meet the FAA's stated minimum capabilities/requirements to be qualified to provide a given product or service. All vendors that meet the FAA's qualification requirements will be listed on the appropriate QVL for the stated products or services.

Requested qualification information (including equipment/products) should be tailored to solicit the information that will allow the FAA to determine which of the vendors meet the FAA's minimum qualification requirements for the required products or services. For products, the information required to make such a determination might be equipment/products for FAA testing, vendor testing, testing data, product documentation, and production capability. For services, the information required to make such a determination might be a capabilities statement and

performance experience. For software-intensive products or services, the information required to make such a determination might include descriptions about the offeror's software development and maintenance processes, in addition to other general information suggested above for products or services.

Once qualification information is requested, received, and evaluated in accordance with the evaluation plan, a QVL will be established for the given product/service. Once such a list is established, only qualified vendors may compete for the products or services. Where a product available from Federal Prison Industries (FPI) is to be acquired via a QVL, any such acquisition must include FPI and follow the procedures set forth at T 3.8.4.A.4 unless the acquisition satisfies an exception in AMS 3.8.4.2. Public announcement is not required once the QVL is established. This list can be updated at the FAA's discretion. Each list should be reviewed regularly to determine whether it should be updated.

Screening Information

Screening information allows the FAA to determine which offeror(s) are most likely to receive the award, and ultimately which offeror(s) will provide the FAA with the best value. The screening information requested in the SIR should focus on information that directly relates to the key discriminators for the procurement.

The following are examples of the types of information that may form the basis of a screening request:

- Equipment/products for FAA testing,
- Vendor testing,
- Testing data,
- Technical documentation (commercial, if available/practicable),
- Capability statements,
- Quality assurance information,
- Performance experience,
- Sample problems,
- Draft/model contracts,
- Technical proposals (including oral presentations, if appropriate/practicable),
- Commercial pricing information,
- Financial condition information,
- Cost or price information, and
- Cost or price proposals.

Request for Offer

A request for offer is a request for an offeror to formally commit to provide the products or services required by the acquisition under stated terms and conditions. The response to the request for offer is a *binding offer*, which is intended to become a binding contract if/when it is signed by the CO. The request for offer may take the form of a SIR, a proposed contract, or a purchase order.

3.2.2.3.1.2.2 Communications with Offerors

Communications with all potential offerors should take place throughout the source selection process. During the screening, selection, and debriefing phases of source selection, communications are coordinated with the CO. Communications may start in the planning phase and continue through contract award. All SIRs should clearly inform offerors how communications will be handled during the initial screening phase.

The purpose of communications is to ensure there are mutual understandings between the FAA and the offerors about all aspects of the procurement, including the offerors' submittals/ proposals. Information disclosed as a result of oral or written communication with an offeror may be considered in the evaluation of an offeror's submittal(s).

To ensure that offerors fully understand the intent of the SIR (and the FAA's needs stated therein), the FAA may hold a pre-submittal conference and/or one-on-one meetings with individual offerors. One-on-one communications may continue throughout the process, as required, at the discretion of the service organization. Communications with one offeror do not necessitate communications with other offerors, since communications will be offeror-specific. Regardless of the varying level of communications with individual offerors, the CO should ensure that such communications do not afford any offeror an unfair competitive advantage. During these and future communications, as applicable, the FAA should encourage offerors to provide suggestions about all aspects of the procurement.

Communications may necessitate changes in the FAA's requirements or screening information request and such changes should be processed consistent with Section 3.2.2.3.1.2.4. Where communications do not result in any changes in the FAA's requirements, the FAA is not required to request or accept offeror revisions. The use of technical transfusion is always prohibited. Technical leveling and auctioning techniques are prohibited, except in the use of commercial competition techniques as described in Section 3.2.2.5.3.

3.2.2.3.1.2.3 Receipt/Evaluation of Submittals

Once offerors have submitted responses to a SIR, the service organization will evaluate the submittals in accordance with the evaluation criteria stated therein and the evaluation plan. To be considered for an award, an offeror must submit a response to the initial SIR, within the time specified in the SIR.

Evaluation Criteria

The evaluation criteria form the basis on which each offeror's submissions are to be evaluated. Once the criteria have been established and disclosed to offerors, criteria should not be modified without first notifying offerors competing at that stage of the process and allowing such offerors to revise their submissions accordingly. Each SIR must contain the specific evaluation criteria to be used to evaluate offeror submittals for that specific SIR. Evaluation criteria should be tailored to the characteristics of a particular requirement and should be limited to only the key discriminators in the ultimate selection decision. The criteria should avoid, whenever possible, the inclusion of detailed sub-criteria (or sub-criteria in general). Further, efforts should be made to

ensure that there are no overlapping criteria. Initial SIRs do not require cost or price proposals but should require submission of more generalized cost or price estimates. Cost or price considerations must be an evaluation factor in all selection decision(s). For software acquisitions the criteria should include, whenever appropriate, an evaluation of the maturity of the offeror's software acquisition, development and maintenance processes that are relevant to the procurement. Such evaluations should be performed using standardized instruments such as a Capability-Maturity-Model-based Evaluation.

Evaluation Plan

An evaluation plan must be prepared by the service organization and approved by the SSO for all procurements accomplished under this section. Evaluation plans should be concise and tailored to the specific needs of the procurement. The evaluation plan should include the name of the SSO and the names of the service organization members and evaluators, the evaluation criteria, the evaluation methods and processes, the schedule, and any other information related to the source selection. The evaluation plan should be completed and approved prior to the receipt of responses to any SIR requesting screening or qualification information.

Evaluation Method

The evaluation methodology should be set up to allow for maximum flexibility in selecting the offeror(s) providing the best value. To facilitate such flexibility, the following should be considered in setting up evaluations:

- Relative importance between criteria is not required (when relative importance is used, the relative order of importance between criteria should be disclosed).
- Each SIR may incorporate separate and/or distinct criteria that relate to the specific SIR discriminators.
- The use of either adjectival or numerical ratings is acceptable.
- Comparative evaluations between offerors' proposals/products are acceptable.
- The service organization should be selective/inventive concerning the screening requirements for document submissions (e.g., oral presentations, sample tests, plant visits, etc.).
- Communications with offerors during the evaluation may help clarify submittals, allow a fuller understanding of the offeror submittals, and provide a more comprehensive evaluation.
- Testing of products is encouraged to the maximum extent practical ("try before you buy").
- Award based on initial offers to other than the low cost or price offer is allowed.

Evaluation Process

The evaluation will be conducted by the service organization, in accordance with the stated evaluation criteria and evaluation plan. The service organization (including any additional required evaluators and/or advisors) should be limited in size and dedicated through the completion of the acquisition. The service organization is expected to apply sound judgment in determining appropriate variations and adaptations necessary for individual situations, provided

that these do not constitute a departure from the basic concepts and intent of the evaluation plan and SIR(s).

Communications may be considered in the evaluation of an offeror's submittal(s). Verifiable information from outside sources may be considered in the evaluation and should be disclosed to the offeror during the communication process. Any such findings should be noted in the evaluation report.

Evaluation Report

The service organization must document the results of the evaluation, including recommendations, if applicable.

3.2.2.3.1.2.4 Changes in Requirements

If, after release of a SIR, it is determined that there has been a change in the FAA's requirement(s), all offerors competing at that stage should be advised of the change(s) and afforded an opportunity to update their submittals accordingly.

The SSO has authority to waive a requirement at any time after release of a SIR, without notifying other offerors where the SIR states that offeror specific waiver requests will be considered, and the waiver does not affect a significant requirement that changes the essential character or conditions of the procurement.

All determinations relating to changes in requirements, including waivers, will be documented in the evaluation report.

3.2.2.3.1.2.5 SSO Decision

Based on a review of the service organization's evaluation report, the SSO may either:

- Make a selection decision (see the selection phase below);
- Make a screening decision by screening those offerors determined to be most likely to receive award, thus continuing the screening phase;
- Amend and re-open to initial offerors; or
- Cancel the procurement.

To ensure the integrity of the FAA competitive source selection process, all SSO decisions should be based on the evaluation criteria established in the SIR and have a rational basis. All offerors who are eliminated from the competition based on any screening decision should be provided with the basis for their elimination within five working days after the screening decision and should be informed that they may request a debriefing after contract award. During the screening process, the SSO may decide to eliminate an offeror from further consideration without considering the cost or pricing information that was submitted in the response to the SIR. However, the final selection decision must consider the cost or price information that was submitted as part of the proposal.

If a screening decision, rather than a selection decision, is made, the service organization should issue another SIR (and repeat the screening process stated above) in order to make a selection decision (or another screening decision) among the remaining offerors. The screening process, starting at the issuance of the SIR, may be repeated until a selection decision is made or the procurement is canceled. In some circumstances it may be appropriate to down-select to one offeror for negotiation. However, if the FAA and the selected offeror cannot come to an agreement, the FAA may select another competing offeror for communications/award without issuance of further SIRs.

3.2.2.3.1.3 Selection Revised 10/2012

The selection decision must be based on the stated evaluation criteria including cost or price considerations to identify the best value.

The service organization must brief the SSO on their evaluation findings. The selection of the offeror who is expected to provide the best value solution is a matter committed to the discretion of the SSO. The SSO applies sound business judgment to the evaluation of the offeror's proposed solution against the stated evaluation criteria. In each case, the SSO should provide a rational basis for the screening or selection decision. The SSO should document the selection decision in the SSO decision memorandum (in cases where the CO and the Contracting Officer’s Representative are the only service organization members, the evaluation report and the SSO decision memorandum may be one report). In making the selection decision, the SSO may accept or reject the service organization's recommendations provided there is a rational basis.

Based on the SSO's decision, the CO will transmit a proposed contract to the selected offeror. The selected offeror will return a properly executed contract. Upon the CO's signature, the proposed contract becomes a binding contract.

3.2.2.3.1.4 Debriefing

Once an award has been made, all offerors who participated in the competitive process will be notified of the award and given three working days from receipt of the award notification to request a debriefing. Debriefings are intended to provide meaningful feedback to offerors on their submission. The purpose of the debriefing is to improve the offeror's ability to successfully compete for future FAA business by discussing the strengths and weaknesses of the offeror's submissions. The debriefing should provide the offeror with the following information:

- SSO's Selection Decision;
- Offeror's evaluated standings relative to the successful offeror(s); and
- Summary of the evaluation findings (excerpts from evaluation summary documentation relating to the specific offeror).

The CO should request detailed questions from the unsuccessful offeror so the FAA can provide meaningful information during the debriefing. Debriefings should be conducted, as soon as practicable, with all offerors that request them.

3.2.2.3.1.5 Lessons Learned

A lessons learned memorandum is a valuable tool in which the service organization can relay its procurement experiences to other FAA acquisition personnel. Once an award has been made, the service organization should communicate its learning experiences. The communication should highlight those issues/processes that had significant impact on their procurement. Further, the service organization should discuss changes that could be made to ensure a more comprehensive evaluation and/or more timely award.

3.2.2.3.2 Reserved

3.2.2.3.2.1 Reserved

3.2.2.3.2.2 Reserved

3.2.2.3.2.3 Reserved

3.2.2.3.2.4 Reserved

3.2.2.3.2.5 Reserved

3.2.2.3.2.6 Reserved

3.2.2.4 Single-Source Selection Revised 10/2019

The FAA may contract with a single-source when in FAA's best interest and the rational basis for the decision is documented. This rational basis may be based on actions necessary and important to support FAA's mission, such as emergencies, standardization, and only source available to satisfy a requirement within the time required. For procurements not anticipated to exceed $10,000, there is no requirement for competition or single-source justification; requirements must not be split to meet this exception. This section 3.2.2.4 is not applicable to noncompetitive awards made to socially and economically disadvantaged businesses (SEDB)/(8(a)) or service-disabled veteran owned small businesses (SDVOSB), both of which are governed under AMS policy 3.6. This section 3.2.2.4 is also not applicable to a site-specific requirement for land or unmanned, antenna/ equipment space, where the location of NAS equipment is (1) necessary to the functionality of the NAS, and (2) of continued criticality to the NAS or mission of the FAA.

The decision to contract with a single-source may be made as part of overall program planning. The rational basis must be documented and approved as a part of program planning in the Implementation Strategy and Planning Document, a procurement plan, or as a separate document. If an Implementation Strategy and Planning Document is not required and the service organization determines that a procurement plan is unnecessary, a separate single-source justification must be documented and endorsed by the service organization and approved by the CO.

Market analysis must be conducted to support each single-source decision, except for emergencies. The method and extent of the analysis depends on the requirement.

The program office must provide the CO with supporting documentation that justifies the proposed single source strategy decision. Examples of information that might be documented include results of market analysis, cost or price data, unique qualifications or performance capability, and past performance. Mere conclusions, without adequate objective supporting data, are insufficient.

After the decision to contract with a single source has been approved, a public announcement must be made for any action over $150,000, except in emergencies. The purpose of the announcement is to inform industry about the basis for the decision to contract with the single source.

For supplies and services, a basic contract may be modified to exercise an option, or to satisfy a follow-on procurement for more of the same products or services without seeking additional competition when, based on market analysis, there is a rational basis not to compete the requirement and the rational basis is documented and approved as discussed in this subsection.

The Contracting Officer must justify and document in accordance with this Section any increase in ceiling price of a time-and-materials or labor-hour contract.

3.2.2.4.1 Single-Source Procurement Process

The single-source procurement process includes planning, communications, award, and lessons learned. The actions for an individual phase within the process may vary depending on the particular circumstances.

3.2.2.4.1.1 Emergencies Revised 1/2020

An emergency situation, including but not limited to a threat to loss of life or property, national security, restoration of an air traffic control facility or to repair critical facility systems to prevent loss of air traffic capability, may require immediate contracting with a single source. In these instances, once funds are committed, the CO may verbally authorize a contractor to proceed and may combine single source phases or complete activities after the fact. As a minimum and as soon as practical, the CO should:

- Obtain funding certification;
- Document the single source decision; and
- Confirm authorization with written notification

3.2.2.4.1.2 Non-emergencies Revised 1/2017

For single-source non-emergency procurements, planning may include:

- Analyzing the market to determine potential sources;
- Developing an independent FAA cost estimate for any anticipated procurement action (to include modifications) whose total estimated value is $150,000 or more, if not exempted by AMS 3.2.1.2.4;
- Obtaining funding certification;
- Obtaining approval of rationale for single source, except for follow-on or exercise of options; and
- Issuing public announcement, if in excess of $150,000.

3.2.2.4.1.3 Lessons Learned

Communicating lessons learned is encouraged.

3.2.2.5 Commercial and Simplified Purchase Method Revised 6/2006

The FAA may acquire commercial products and services from the competitive market place by using the simplified purchase method described herein and best commercial practices. Commercial and simplified purchases are used for commercial items or for products or services that have been sold at established catalog or market prices and are generally purchased on a fixed-price basis. However, procurement of products available for purchase from Federal Prison Industries is governed by AMS 3.8.4.2.

3.2.2.5.1 Planning Revised 1/2017

Procurement planning should be accomplished for all simplified and commercial purchases. The level of planning and announcement should be dictated by the nature and complexity of the requirement, commercial availability, dollar value, urgency of the requirement, and degree of previous procurement history.

The purpose of procurement planning is to:

- Determine whether commercial items meet the FAA's needs;
- Identify potential commercial sources; and
- Publicly announce requirements in excess of $150,000.

Market analysis should be simple and straightforward, and may include information based on personal knowledge of the market, historical purchase information, qualified vendors list, commercial catalogs, trade journals, newspapers, other professional publications or local telephone directories.

Contracting mechanisms are at the discretion of the CO. Purchases may also be made using the following mechanisms:

- Purchase card;
- Purchase card checks;

- Purchase order;
- Contract;
- Orally (only in emergency situations) with proper documents processed as soon as possible following the oral order; and
- Other methods, including interagency agreements, when deemed appropriate and properly documented.

3.2.2.5.2 Sourcing Determination

The CO should solicit an appropriate number of vendors to ensure quality products and services are delivered in a timely manner at a fair and reasonable price. Requirements should be stated in commercial terms generally understood and accepted in the industry.

3.2.2.5.3 Screening

The CO should determine the appropriate screening approach and format for vendor's responses (e.g., electronic, written, oral, use of standard commercial or FAA forms). The CO may also conduct communications with individual offerors, as appropriate, to address offeror understanding of the requirement, performance capability, prices, and other terms and conditions. For commercially available products, the CO is encouraged to use "commercial competition techniques" such as continuing market research throughout the process by using vendor proposals as the source of prices and commercially available capabilities and sharing that information with other vendors.

3.2.2.5.4 Selection Decision and Award

The CO's selection decision should be based on the FAA's stated evaluation criteria. The selection decision for commercial or simplified purchases should be based on the best value to the FAA including, but not limited to, factors such as price, functional specifications, delivery capability, warranty, and payment terms. This may be accomplished through establishing specific evaluation criteria with an accompanying evaluation plan as described under Complex, Noncommercial Source Selection, and making the selection based on the stated criterion. It may also be based on the most favorable solution available in the commercial market, as determined by the FAA, as described under Commercial and Simplified Purchase Method, or through a combination of methods depending on complexity, risk, dollar value, and urgency of the requirement.

3.2.2.5.4.1 Documentation

The method of selection and rationale for awards, and a determination that the price is fair and reasonable should be documented. The extent of the documentation depends on the complexity and dollar value of the procurement action.

3.2.2.5.5 Micro-Purchase Threshold Revised 4/2017

Simplified purchases with a total estimated potential value (TEPV) under the micro-purchase threshold must be performed using the purchase card. The micro-purchase threshold is $10,000 for commercial supplies, construction and services.

3.2.2.6 Unsolicited Proposals

3.2.2.6.1 Policy Added 10/2008

The FAA may consider and accept unsolicited proposals when in the best interest of FAA. Unsolicited proposals are a valuable means for FAA to obtain innovative or unique methods or approaches to accomplishing its mission from sources outside FAA. Advertising material, commercial item offers, contributions, or technical correspondence are not considered to be unsolicited proposals. A valid unsolicited proposal must:

- Be innovative and unique;
- Be independently originated and developed by the offeror;
- Be prepared without FAA supervision;
- Include sufficient detail to permit a determination that the proposed work could benefit FAA's research and development, or other mission responsibilities; and
- Not be an advance proposal for a known FAA requirement that can be acquired by competitive methods.

3.2.2.6.2 Receipt and Initial Review Revised 10/2008

Unsolicited proposals should be addressed to:

Federal Aviation Administration
Acquisition Policy and Oversight
Acquisition Policy Group (AAP-100)
Attn.: Unsolicited Proposal Coordinator
800 Independence Avenue SW, Room 439W
Washington, DC 20591

Once received, the FAA unsolicited proposal coordinator will review and determine if the document(s) meets the requirements of an unsolicited proposal.

3.2.2.6.3 Prohibitions Added 10/2008

FAA personnel should not use any data, concept, idea, or other part of an unsolicited proposal as the basis, or part of the basis, for a SIR or in communications with any other firm unless the offeror is notified of and agrees to the intended use. However, this prohibition does not preclude using any data, concept, or idea available to FAA from other sources without restrictions.

FAA personnel must not disclose restrictively marked information included in an unsolicited proposal. The disclosure of such information concerning trade secrets, processes, operations, style of work, apparatus, and other matters, except as authorized by law, may result in criminal penalties under 18 U.S.C. 1905.

3.2.2.7 Contractor Qualifications

3.2.2.7.1 Applicability

This section applies to all contracts and to all proposed contracts with any prospective contractor that is located in the United States, its possessions, or Puerto Rico; or elsewhere, unless application would be inconsistent with the laws or customs where the contractor is located.

3.2.2.7.2 Contractor Responsibility

The CO must ensure that contracts are awarded only to responsible contractors (see Section 3.2.2.2). No award may be made unless the CO makes an affirmative determination of responsibility.

3.2.2.7.3 Contractor Team Arrangements

FAA will recognize the validity of contractor team arrangements, provided, the arrangements and company relationships are fully disclosed in an offer, or for arrangements entered into after submission of an offer, before the arrangement becomes effective.

3.2.2.7.4 Suspension and Debarment

FAA may suspend or debar contractors for cause. FAA will honor suspension, debarment, and ineligibility decisions of other agencies unless FAA has a compelling need to obtain the requirement from that contractor.

3.2.2.8 Describing FAA Needs

3.2.2.8.1 Applicability

The requirements herein apply to all FAA procurements and agreements except real property and utilities.

3.2.2.8.2 Policy

The FAA will describe its needs clearly and generally in writing, absent special or emergency circumstances. Service organizations may describe needs as minimum requirements, goals, or in

another form well suited to the contemplated procurement.

3.2.2.9 Rehabilitation Act

The FAA must comply with Section 508 of the Rehabilitation Act of 1973 in developing, procuring, maintaining or using electronic and information technology. Section 508 of the Rehabilitation Act of 1973 applies to all new procurements after June 21, 2001.

3.2.3 Pricing Methodology, Principles and Standards Revised 10/2011

3.2.3.1 Applicability Revised 10/2011

This section applies to pre- and post-award pricing and analysis for contracts, subcontracts, orders, and modifications, excluding real property and utilities.

3.2.3.2 Cost and Price Analysis Revised 1/2016

The CO must make a determination that prices are fair and reasonable based on price analysis and, if necessary, cost analysis. Price analysis is the review of price without evaluating separate cost elements and profit/fee, and is required for all pricing actions. Cost analysis is the review of the individual cost elements and profit. Price analysis is the preferred method for evaluating competitive proposals. If the CO determines price competition is not adequate to support a determination of price reasonableness, the CO must require offerors to submit either certified cost or pricing data or information other than certified cost or pricing data. When the CO determines adequate price competition exists, certified cost or pricing data must not be requested. In situations with established catalog or market prices, prices set by law or regulation, or commercial items, price analysis is sufficient and the CO must not request cost data.

3.2.3.3 Pre- and Post Award Audits Revised 4/2019

The CO must request pre-award and post-award audits on all cost reimbursement contracts exceeding $100 million. In addition, FAA will request pre-award and post-award audits on at least 15% of all cost reimbursement contracts not anticipated to exceed $100 million. For other contract types, the CO may use any method of cost or price analysis to determine fair and reasonable prices.

Pre-award audits and post-award incurred cost audits are the preferred mechanism to assist the CO in ensuring valid indirect and direct costs are billed under cost reimbursement contracts. The CO is responsible for ensuring indirect and direct costs under a cost reimbursement contract are allowable. In situations where an incurred cost audit is not obtained, the CO will still ensure that only allowable costs are paid.

The sponsoring service organization will fund required pre- and post- award audits and must include an estimate of the cost of audits in the acquisition program baseline or execution plan; the

implementation strategy and planning document will describe the approach, responsible organizations, and activities for obtaining audits.

3.2.3.4 FAA Cost Principles Added 10/2011

The FAA contract cost principles, as described in AMS Procurement Guidance, must be used to price contracts, subcontracts, orders, and modifications whenever cost analysis is performed. Cost principles must also be used for determining, negotiating, or allowing costs when required by a contract clause. The CO must incorporate FAA cost principles in contracts with commercial organizations as the basis for:

- Determining reimbursable costs under (a) cost-reimbursement contracts and cost-reimbursement subcontracts under these contracts performed by commercial organizations and (b) the cost-reimbursement portion of time-and-materials contracts except when material is priced on a basis other than at cost;
- Negotiating indirect cost rates, when FAA has division or corporate contract administration responsibilities, quick close-out procedures are used, or indirect rate caps are negotiated in the contract;
- Proposing, negotiating, or determining costs under terminated contracts;
- Price revision of fixed-price incentive contracts;
- Price re-determination of price re-determination contracts; and
- Pricing changes and other contract modifications.

When another Government agency has division or corporate contract administration responsibilities, FAA may agree to cost principles of the administering agency to determine or negotiate indirect rates not covered by (a) or (b) above.

3.2.3.5 Cost Accounting Standards Revised 4/2019

All contractors and subcontractors must use Cost Accounting Standards (CAS) according to 48 CFR Part 99 for estimating, accumulating, and reporting costs in connection with pricing, administering, and settling disputes concerning all negotiated prime and subcontract procurements $2,000,000 or more, except for contracts or subcontracts exempted by these regulations. The following categories of contracts and subcontracts are exempt from all CAS requirements:

- Negotiated contracts and subcontracts less than $2,000,000. For purposes of this paragraph, an order issued by one segment to another segment must be treated as a subcontract;
- Contracts and subcontracts with small businesses;
- Contracts and subcontracts with foreign governments or their agents or instrumentalities or (insofar as the requirements of CAS other than 9904.401 and 99.402 are concerned) any contract or subcontract awarded to a foreign concern;
- Contracts and subcontracts in which the price is set by law or regulation;
- Firm fixed-priced and fixed-price with economic price adjustment (provided that price adjustment is not based on actual costs incurred), time-and-materials and labor-hour

contracts and subcontracts for acquisition of commercial items;

- Contracts or subcontracts of less than $7.5 million, provided that, at the time of award, the business unit of the contractor or subcontractor is not currently performing any CAS-covered contracts or subcontracts valued at $7.5 million or greater;
- Contracts and subcontracts to be executed and performed entirely outside the United States, its territories, and possessions; and
- Firm fixed-price contracts or subcontracts awarded on the basis of adequate price competition without submission of cost or pricing data.

3.2.4 Types of Contracts

3.2.4.1 Applicability

This section is applicable to contracts for procurement of all products and services.

3.2.4.2 Policy

Contracts may be of any type or combination of types except for cost plus a percentage of cost contracts, which are prohibited. The use of fixed-price contracts is strongly encouraged whenever appropriate. Development contracts may be incrementally phased fixed-price contracts. All contracts, except those issued in emergency situations, must be in writing.

3.2.4.3 Guidance and Principles Revised 10/2018

The types of contracts that may be used for FAA procurements are addressed in AMS guidance. Types of contracts other than those specified in the guidance may be used when approval has been obtained from an official one level above the CO within the contracting organization.

Contracting officers should clearly identify the type of contract(s) at the front of each contract and in SIRs, when appropriate. Where multiple types of contracts are used in one contract, performance requirements, terms and conditions, and prices (or estimated cost and fee) for each type of contract should be clearly separated and partitioned.

The multi-year contract may be used for the acquisition of products and services in accordance with any applicable restrictions and appropriate appropriations acts.

3.2.5 Contractor Ethical Guidelines

3.2.5.1 Applicability

This policy is applicable to all contracts.

3.2.5.2 Policy

FAA business must be conducted in a manner above reproach and, except as authorized by statute or regulation, with complete impartiality and with preferential treatment for none.

3.2.6 Purchase Card Program Added 1/2009

3.2.6.1 Applicability Added 1/2009

Purchase card policy and corresponding guidance apply only to actions conducted through the FAA purchase card program.

3.2.6.2 Policy Added 1/2009

All procurements using an FAA purchase card must be conducted according to applicable laws, regulations, and FAA policy. AMS procurement guidance for purchase cards establishes standards for competition and source selection that supersedes other applicable AMS policy and guidance.

3.2.7 Anti-Counterfeit Management Added 4/2014

3.2.7.1 Applicability Added 4/2014

Anti-Counterfeit policy and non-conforming parts requirements are applicable to (1) contracts over $50M; (2) construction contracts for NAS applications over $2M; and (3) office equipment and/or supplies for NAS applications over $2M.

3.2.7.2 Suspected Counterfeit and Non-Conforming Parts Added 4/2014

Anti-Counterfeit policy, guidance and procedures apply to securing the FAA equipment supply chain from counterfeit and non-conforming parts.

The CO must ensure that instruction to contractors result in the most efficient and economical way to mitigate the entry of suspected counterfeit and non-conforming parts in the FAA supply chain by:

- Not knowingly procuring suspected counterfeit and non-conforming parts.
- Documenting all occurrences of suspected and confirmed counterfeit parts in the appropriate reporting system, including the Government-Industry Data Exchange Program (GIDEP).
- Making information about counterfeiting accessible at all levels of the FAA supply chain as a method to prevent further counterfeiting.

- Notifying the appropriate FAA investigative organization, or US Government intelligence authorities, and those who use the suspected and confirmed counterfeit parts, of incidents at the earliest opportunity

3.3 Contract Funding and Payment Revised 10/2011

3.3.1 Contract Funding and Payment

Contract payment processes expedite the performance of essential contracts. The FAA will structure payment plans and schedules that are conducive to efficient and economical contract performance.

3.3.1.1 Applicability

This section applies to all contracts except real property and utilities. This section includes:

- Payments;
- Prompt payment;
- Non-delivery payments (commercial and noncommercial);
- Contract funding; and
- Debt collection.

3.3.1.2 Policy

3.3.1.2.1 Payment

Prudent contract payment schemes expedite the performance of essential contracts. The CO should strive to structure the contract to allow frequent partial deliveries. If partial deliveries are not possible or the interval between deliveries is long, non-delivery payments may be necessary for efficient and economical contract performance.

3.3.1.2.2 Prompt Payment Revised 4/2012

The FAA should make payments for all acceptable deliveries within 30 days after receipt of a proper invoice and receiving report (15 days for contracts with small businesses, whenever practicable). Interest will apply to any payment later than 30 days. However, except under contracts for services, interest will not apply to late payments on interim vouchers under time-and-material, labor-hour, and cost reimbursement contracts.

3.3.1.2.3 Non-delivery Payments (Commercial and Noncommercial)

The CO may use any of the non-delivery payment methods available for use. Other types of non-

delivery payments may be made as long as they are mutually agreed upon and the interest of the FAA and the U.S. taxpayer are protected (e.g., security, adequate accounting system, etc.). All non-delivery payment plans not described in this section require approval one level above the CO.

3.3.1.2.4 Contract Funding

The FAA must comply with the Anti-Deficiency Act and other fiscal laws.

3.3.1.2.5 Debt Collection

Debt collection is the responsibility of the CO in coordination with the payment office. Interest must be assessed on all uncollected debt in accordance with this section.

3.3.2 Reserved Revised 10/2011

3.4 Bonds, Insurance, and Taxes

3.4.1 Bonds and Insurance

3.4.1.1 Applicability Revised 7/2008

This section applies to construction contracts subject to the Miller Act, and to any other contracts that the CO determines would benefit from use of bonds, guarantees, and insurance to protect FAA's interest.

3.4.1.2 Policy Revised 10/2010

The FAA will comply with the intent of the Miller Act (40 U.S.C. 270a-270f) by requiring payment and performance bonds for construction contracts over $150,000. The FAA may also require proposal guarantees, payment bonds, performance bonds, and insurance for any contract when necessary to protect FAA's interests.

3.4.2 Taxes

3.4.2.1 Applicability

This section prescribes guidance for (a) using tax clauses in contracts (including foreign contracts), (b) asserting immunity or exemption from taxes, and (c) obtaining tax refunds. It explains Federal, State, and local taxes on certain products and services acquired by executive agencies and the applicability of such taxes to the Federal Government. It is for the general information of Government personnel and does not present the full scope of the tax laws and regulations.

3.4.2.2 Policy

The FAA policy is to provide appropriate contract clauses for (a) Federal Excise Taxes levied on the sale or use of particular products or services, (b) exemption of Federal Excise Taxes, and (c) exemption of Federal purchases and property from state and local taxes. The service organization must use the appropriate clauses for the tax situation at hand.

3.5 Patents, Rights in Data and Copyrights

3.5.1 Applicability

The policies prescribed in this section are applicable to all contracts involving intellectual property issues.

3.5.2 Policy

Patents, copyrights, and other rights in data are valuable intellectual property. The FAA acquires patents, copyrights, and other rights in data as necessary to:

- Enhance the competitive process;
- Ensure the ability to use, maintain, repair, and modify products procured under FAAcontracts;
- Recoup development costs of, and fund improvements in, products and equipment;
- Develop products for FAA and public use; and
- Protect its position in the competitive marketplace.

3.6 Socio-Economic and Other Policies and Programs

3.6.1 Small Business Development Program Revised 7/2005

3.6.1.1 Applicability Revised 10/2012

The policies in this Section apply to FAA procurements for products and services but exclude those procurements using purchase cards, purchase card checks, electric utilities, real property, grants, memoranda of understanding, non-appropriated funds, contracts to be awarded and performed entirely outside of the United States, contracts with foreign governments or international organizations, agreements, and required sources of products/services and use of Government sources including products available from Federal Prison Industries (FPI) (refer to AMS Small Business Program Development Guidance).

3.6.1.2 Policy Revised 1/2010

The FAA must comply with Presidential directives, constitutional standards, public laws, and DOT Secretary Policy Statements to promote, expand, aggressively provide procurement

opportunities as prime contractors and as subcontractors for small businesses, small businesses owned by socially and economically disadvantaged individuals, women-owned small businesses and service-disabled veteran owned small businesses. The FAA's Small Business Development staff currently has and will continue to have responsibility for:

- FAA's policy and program on the utilization of small business and small businesses owned and controlled by socially and economically disadvantaged individuals;
- Establishing mechanisms for monitoring and evaluating the effectiveness of the small business program; and
- Ensuring FAA-wide implementation and accomplishment of the small business program objectives.

Key features of the small business program will include:

- Competitive/noncompetitive set-asides;
- Establishment of eligibility criteria and measurable prime contracting and subcontracting goals;
- Vigorous outreach efforts;
- Mentor-Protégé Program; and
- Small business forums.

3.6.1.3 Principles for the Small Business Development Program Revised 7/2005

3.6.1.3.1 Program Goals Revised 7/2005

Prior to the end of each fiscal year, measurable annual FAA wide major procurement program goals (including subcontracting goals) will be established to provide attainable and reasonable opportunities for small businesses and small businesses owned and controlled by socially and economically disadvantaged individuals to participate in contracts awarded by the FAA for the next fiscal year.

To ensure attainment of the program goals, senior management will be held responsible and goal achievement will be monitored at all levels in the agency. Additionally, the Small Business Development Staff will conduct vigorous outreach efforts that may include participating in Small Business Conferences, Small Business forums, etc.

3.6.1.3.2 Prime Contracting with Small Businesses Revised 1/2017

When appropriate, individual procurements may be set aside for competitive award among small businesses. Individual procurements may also be set-aside for small businesses two categories (combined set-asides).

3.6.1.3.3 Reserved Revised 1/2017

3.6.1.3.4 Set-Asides to Small Businesses Owned and Controlled by Socially and Economically Disadvantaged Individuals (8(a) Certified) and Service-Disabled Veterans Revised 7/2019

Except for those acquisitions being purchased using the agency purchase card, or those acquisitions subject to AMS 3.8.4.2, each acquisition of supplies or services having an anticipated dollar value exceeding $10,000, but not over $150,000, is automatically reserved exclusively for SEDB (8(a)) vendors and/or Service-Disabled Veteran-Owned Small Businesses (SDVOSBs) unless the Contracting Officer determines there is not a reasonable expectation of obtaining offers from responsible SEDB (8(a)) or SDVOSB concerns that are competitive in terms of market prices, quality and delivery. The Contracting Officer must submit the Small Business Set-Aside Determination and Coordination Form if not setting aside for either SEDB (8(a)), SDVOSB, or small business firms for acquisitions exceeding $10,000 but not over $150,000 (see also AMS Small Business Development Program Guidance for use of this form). **These procurements may be either competitive or noncompetitive.**

In addition, other individual procurements outside the above specified range may be set-aside for competitive award among Socially and Economically Disadvantaged Businesses (SEDBs) that are 8(a) certified, or Service-Disabled Veteran-Owned firms, when appropriate.

3.6.1.3.5 Noncompetitive Awards to SEDB (8(a)) Vendors Revised 7/2016

Individual procurements may be noncompetitively awarded to SEDB (8(a)) vendors when the anticipated total value of the procurement (including all options) is $6.5 million or below for procurements assigned manufacturing North American Industry Classification System codes and $4 million or below for all other procurements. Where a procurement exceeds the noncompetitive threshold, the procurement may be awarded on a noncompetitive basis to SEDB (8(a)) vendors if: (1) there is not a reasonable expectation that at least two or more SEDB (8(a)) sources will submit offers that are in the Government's best interest in terms of quality, price and/or delivery; or (2) the award will be made to a concern owned by an Indian tribe or an Alaska Native Corporation. Noncompetitive awards above $22 million to SEDB 8(a) vendors must be justified and documented as indicated in AMS Small Business Development Procurement Guidance.

3.6.1.3.6 Set-Asides to Service-Disabled Veteran Owned Small Businesses Revised 10/2008

When appropriate, individual procurements may be awarded noncompetitively or set-aside competitively for award among service-disabled veteran owned small businesses.

3.6.1.3.7 Subcontracting with Small Businesses and Small Businesses Owned and Controlled by Socially and Economically Disadvantaged Individuals

When appropriate, subcontracting opportunities will be encouraged.

3.6.2 Labor Laws

3.6.2.1 Applicability Revised 10/2014

The Davis-Bacon Act (40 U.S.C. § 276a), Convict Labor (18 U.S.C. § 4082-(c)(2)), Copeland Act (18 U.S.C. § 874 and 40 U.S.C. § 276c), Walsh-Healey Public Contracts Act (41 U.S.C. §§ 6501-6511), Equal Employment Opportunity (Executive Order 11,141, 29 FR 2477), Service Contract Act (41 U.S.C. §§ 6701-6707), and other labor laws and regulations will apply to acquisitions for products, services, and construction.

3.6.2.2 Policy Revised 4/2017

The FAA will comply with labor laws when acquiring products, services, and construction, consistent with the thresholds established herein the Acquisition Management System.

3.6.3 Environment, Conservation, Occupational Safety, and Drug-Free Workplace Revised 4/2009

3.6.3.1 Applicability Revised 4/2009

This section applies to all FAA Screening Information Requests (SIRs) and contracts performed in the United States.

3.6.3.2 Policy Revised 1/2020

It is the policy of FAA to contract with entities that are in compliance with applicable environmental, energy, safety, and drug-free workplace laws, orders, and regulations.

FAA will ensure that all contract actions and purchases comply with statutory requirements, where applicable to the product or service. FAA should prioritize products and services that meet more than one of the applicable requirements and is encouraged to procure products and services in a cost-effective manner that advance achievement of energy and environmental performance goals. FAA will use Category Management solutions to the maximum extent practicable, which can help meet sustainability goals and better leverage the government's buying power.

FAA will give purchasing preference to products that:

- Meet minimum requirements for recycled content as identified by EPA's Comprehensive Procurement Guideline (CPG) Program;
- Are designated as biobased or BioPreferred by USDA; and
- Are certified by ENERGY STAR® or designated by FEMP as energy efficient products.

FAA will maximize substitution of alternatives to ozone-depleting substances in its procurements, as

identified under EPA's Significant New Alternatives Policy (SNAP) program.

FAA should also seek sustainable products and services identified by other EPA programs, including WaterSense®, Safer Choice®, and SmartWay® as well as non-federal specifications, standards or labels that meet or exceed those recommended by EPA or meet criteria developed or adopted by consensus standards bodies.

3.6.3.3 Environmental Performance and Sustainability Factors Revised 10/2016

3.6.3.3.1 Recycled-Content Products Revised 1/2020

In order to meet the objectives of Executive Order (EO) 13834, FAA will procure products composed of recycled content, which are produced with waste materials and byproducts recovered or diverted from solid waste. Recycled-content products are designated in EPA's Comprehensive Procurement Guidelines (CPG) and FAA will purchase these products at the highest percentage of recovered content practicable. FAA should purchase uncoated paper (including office products or support services that include the supply of written documents) containing at least 50 percent post-consumer recycled content whenever practicable, but if not practicable, FAA will purchase uncoated printing and writing paper containing at least 30 percent post-consumer recycled content or higher. These considerations will be identified in procurement planning and SIR/contract documents. The decision not to procure such items will be based on a determination that such procurement items:

1. Are not reasonably available within a reasonable period of time;
2. Fail to meet the performance standards set forth in the applicable specifications or fail to meet the reasonable performance standards of the procuring agencies; or
3. Are only available at an unreasonable price.

3.6.3.3.2 Energy Conservation and Efficiency Revised 1/2020

In order to meet the objectives of EO 13834, the Energy Policy Act of 2005 (EPAct 2005), the Energy Independence and Security Act of 2007 (EISA 2007), and FAA Order 1053.1B (or the latest version), FAA will procure ENERGY STAR© -labeled and FEMP-designated products. FAA will also promote electronics stewardship throughout the acquisition life cycle and ensure a procurement preference for environmentally sustainable electronic products in accordance with statutory mandates such as Electronic Products Assessment Tool (EPEAT)-registered products. These considerations will be identified in the procurement planning and SIR/contract documents when procuring products or services affecting FAA energy consumption. The decision not to procure such items will be based on a determination that such procurement items:

1. Are not reasonably available within a reasonable period of time;
2. Fail to meet the performance standards set forth in the applicable specifications or fail to meet the reasonable performance standards of the procuring agencies; or
3. Are only available at an unreasonable price.

3.6.3.3.3 BioPreferred and Biobased Designated Products Revised 1/2020

In order to meet the objectives of EO 13834, the Farm Security and Rural Investment Act of 2002, the Food Conservation and Energy Act of 2008, and the Agricultural Act of 2014, FAA will purchase and use USDA BioPreferred and biobased designated products, which are products derived from plants and other renewable agricultural, marine, and forestry materials and provide an alternative to conventional petroleum derived products. FAA will give preference to products composed of the highest percentage of biobased material practicable. These considerations will be identified in procurement planning, SIR/contract documents. The decision not to procure such items will be based on a determination that such products within a product category:

1. Are not reasonably available within a reasonable period of time;
2. Fail to meet the performance standards set forth in the applicable specifications or fail to meet the reasonable performance standards of the procuring agencies; or
3. Are only available at an unreasonable price.

3.6.3.3.4 Alternatives to Ozone Depleting Substances and High Global Warming Potential Hydrofluorocarbons Revised 1/2020

In order to meet the objectives of EO 13834 and the Clean Air Act, FAA will procure Significant New Alternative Policy (SNAP) chemicals or other alternatives to ozone-depleting substances and high global warming potential hydrofluorocarbons, where feasible, as identified by SNAP. FAA will ensure that the product complies with statutory mandates (e.g., biobased) if applicable to the product category. These considerations will be identified in the procurement planning and SIR/contract documents.

3.6.3.3.5 Water Conservation and Efficiency Revised 1/2020

In order to meet the objectives of EO 13834 and FAA Order 1053.1C (or the latest version), FAA should purchase WaterSense certified products and services. These considerations will be identified in the procurement planning and SIR/contract documents when procuring products or services affecting FAA water consumption.

3.6.3.3.6 Chemicals Management Revised 1/2020

In order to meet the objectives of EO 13834, FAA should purchase Safer Choice labeled products to reduce the overall quantity of chemicals and toxic materials acquired, used, and disposed of. FAA will ensure that the product complies with the statutory mandates (e.g., biobased) if applicable to the product category. These considerations will be identified in the procurement planning and SIR/contract documents.

Additionally, FAA will implement EPA's Integrated Pest Management Principles and Water Efficient Landscaping practices to reduce and eliminate the use of toxic and hazardous chemicals and materials.

3.6.3.4 Delivery of Electronic and Paper Documents Revised 1/2020

Contractors must submit acquisition-related documents electronically, to the maximum extent

practicable. When paper documents are submitted to the FAA, they must be printed or copied double-sided. Refer to the Recycled-Content Products Policy above for additional requirements for delivery of paper documents.

3.6.3.5 Drug-Free Workplace Revised 4/2009

The FAA must deem any offer unqualified and ineligible for award unless the offeror has certified that it is a drug free workplace. After contract award, if there is adequate evidence to suspect that the contractor submitted a false certification or failed to comply with the certification, the FAA may suspend payments, terminate the contract for default, debar or suspend the contractor, or take other appropriate action to obtain quality performance by a lawfully operating contractor.

3.6.3.6 Hazardous and Radioactive Materials

3.6.3.6.1 Hazardous Material Identification and Safety Data Revised 10/2016

It is FAA policy to comply with Occupational Safety and Health Administration (OSHA) regulations on hazardous materials, conditions and precautions. To comply with these regulations, FAA must obtain information from contractors when hazardous materials are provided to FAA. Contractors are required to identify any hazardous materials delivered under a contract, as defined in Federal Standard 313; and must provide Safety Data Sheets for all identified hazardous materials.

3.6.3.6.2 Notice of Radioactive Material Revised 10/2016

The contractor is required to notify the FAA, prior to delivery, of radioactive material that requires specific licensing under the Atomic Energy Act of 1954; or material with a specific activity that is greater than 0.002 microcuries per gram, or a specific activity per item exceeds 0.01 microcuries.

3.6.3.7 Waste Management Revised 1/2020

In order to meet the objectives of EO 13834, FAA will demonstrate incremental improvement on reducing the tons of non-hazardous solid waste generated and reducing the percentage of non-hazardous solid waste sent to treatment and disposal facilities. FAA will also demonstrate incremental improvement on reducing the tons of non-hazardous construction and demolition (C&D) materials and debris generated and reducing the percentage of non-hazardous C&D materials and debris sent to treatment and disposal facilities. Contractors must comply with the waste reduction and reporting requirements set forth by FAA with regard to the diversion of non-hazardous solid waste and C&D debris. Waste management will further be accomplished through employing source reduction strategies (such as purchasing items that require less packaging materials during shipping) and reducing printing paper use. Waste management factors must be considered, to the maximum extent practicable, in acquisitions where their application would be

meaningful and consistent with meeting FAA requirements. These factors must be identified in the procurement planning and SIR/ contract documents.

3.6.4 Foreign Acquisition Revised 4/2014

3.6.4.1 Buy American Act Added 10/2014

The FAA will comply with the tenets of the Buy-American Act (41 U.S.C. §§ 8301-8305) as part of the agency's best value determination during the contractor selection process.

3.6.4.2 Export Control Added 4/2014

The FAA will comply with all U. S. Export Control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120 through 130 and the Export Administration Regulations (EAR), 15 CFR Parts 730 through 774.

3.6.5 Indian Incentive Program

The FAA is subject to the requirements of paragraph 1544 of 25 U.S.C. that establishes an incentive payment for contractors of Federal agencies that subcontract with or use suppliers who are Indian organizations or Indian-owned economic enterprises in performing the contract. This incentive payment may be equal to 5 percent of the amount paid, or to be paid, to a qualifying subcontractor or supplier that is an Indian organization or Indian-Owned economic enterprise.

3.6.6 Fastener Quality Act

The FAA must comply with Pub. L. 101-592, as amended by Pub. L. 104-113 in equipment and construction applications which require the use of high-strength fasteners.

3.7 Freedom of Information Revised 10/2018

3.7.1 Applicability Revised 10/2018

Freedom of information is applicable to all FAA procurements including agreements, real property, utilities, credit cards, commercial and simplified purchase method.

3.7.2 Policy Revised 10/2018

The FAA will comply with the Freedom of Information Act which requires that the FAA provide information to the public by (i) publication in the Federal Register; (ii) providing an opportunity to read and copy records; or (iii) upon a reasonable request. Certain information may be exempted from disclosure; such as, classified information, trade secrets, and confidential commercial or financial information, interagency or intra-agency memoranda, or to personal and medical information pertaining to an individual.

3.8 Special Categories of Contracting

3.8.1 Agreements

3.8.1.1 Applicability

3.8.1.2 Use of Agreements Revised 1/2012

It is FAA's policy to use various agreements, other than procurement contracts, to obtain or provide services and supplies when necessary to accomplish the mission of FAA. These agreements may be made with another Federal agency or instrumentality of the Federal government, a modal administration within the Department of Transportation, a state, local government, municipality, or other public entity, and private entities. (See 49 U.S.C. 106(l)). The following is a list of the more commonly used agreements (other than procurement contracts):

- Interagency agreements;
- Intra-agency agreements;
- Reimbursable agreements;
- Agreements with other public entities; and
- Agreements to provide services to a private entity on an individualized basis.

3.8.1.3 Principles for Agreements

Agreements with other Federal Agencies (as defined in section 551(1) of title 5) are appropriate where FAA provides services or supplies or facilities to another Federal agency, or where FAA is the requesting agency to receive services, or supplies, or facilities from another Federal agency or that agency's contractor. Where the FAA and the Department of Defense are engaged in joint actions to improve or replenish the national air traffic system, the AMS policies governing FAA acquisitions are applicable. In those instances where the FAA acquires goods or services through the Department of Defense or other agencies, the FAA is bound by the acquisition laws governing those agencies.

3.8.2 Service Contracting

3.8.2.1 Applicability

This section applies to advisory and assistance contracts and other services, including personal services such as employees support service as provided for in FAA's Personnel Management System. This section does not apply to FAA employees, temporary, part-time or permanent appointed or hired in accordance with the other applicable portions of the FAA Personnel Management System.

3.8.2.2 Policy

The FAA will generally rely on the private sector for commercial services (see OMB Circular

No. A-76, Policies for Acquiring Commercial or Industrial Products and Services Need by the Government). In no event may a contract be awarded for the performance of an inherently governmental function. Advisory and assistance contracts must comply with all applicable laws concerning post-employment and other conflict of interest and ethics laws and policies.

3.8.2.3 Personal Services Contracts

3.8.2.3.1 Reserved

3.8.2.3.2 Determination

The FAA may award personal services contracts when the head of a line of business determines that a personal service contract is in the best interest of the agency after thorough evaluation, which includes, but is not limited to the following factors:

- Worker's compensation payments and other tax implications;
- Government's potential liability for services performed;
- Availability of temporary hires to perform the desired services;
- Demonstration of tangible benefits to the agency;
- Detailed cost comparison demonstrating a financial advantage to the Government from such contract;
- Potential post employment restrictions applicable to former employees;
- Legal determination that the work to be performed is not inherently governmental; and
- Potential post employment restrictions pursuant to Federal Workforce Restructuring Act of 1994 Public Law 103-226.

Although personal service contracts are permitted, they should be used only when there is a clear demonstrated financial and program benefit to the FAA. The determination required herein is non-delegable and must be reviewed for legal sufficiency by the Office of the Chief Counsel.

3.8.2.4 Performance Based Service Contracts

Service contracts should incorporate performance based contracting methods to encourage contractor innovation and efficiency, and to help ensure contractors provide timely, cost- effective, and quality performance with measurable outcomes as opposed to either the manner by which the work is to be performed or broad and imprecise statements of work.

3.8.2.5 Cloud Computing Services Contracts **Added 10/2016**

All cloud computing services contracts will be conducted in accordance with Federal Risk and Authorization Management Program (FedRAMP) requirements. Further information on FedRAMP may be found at www.fedramp.gov.

3.8.3 Federal Supply Schedule Contracts

3.8.3.1 Applicability

This section is applicable when FAA awards Federal Supply Schedule delivery orders for recurring products and services. Additionally, this section addresses requirements to utilize Federal Supply Schedules awarded by GSA, when the FAA is identified in the schedule as a mandatory/non-mandatory user of any supply/service on the schedule.

3.8.3.2 Policy

The FAA may consider awarding Federal Supply Schedule contracts, or placing orders against Federal Supply Schedules awarded by GSA, for recurring products and services when it is determined to be in the best interest of the FAA.

3.8.4 Required Sources of Products/Services and Use of Government Sources

3.8.4.1 Applicability Revised 2/2005

This section applies to procurement of all products and services, except for real property, utilities, and construction.

3.8.4.2 Government Sources for Products and Services Revised 10/2014

The CO may use available Government sources when they offer the best value to satisfy FAA's mission need. However, pursuant to FAA policy, the CO must acquire products and services offered through the Randolph-Sheppard Vending Facilities Program (20 U.S.C. 107) and AbilityOne (formerly the Javits-Wagner-O'Day Program) (41 U.S.C.§§ 8501-8506).

FAA policy also requires that FAA purchase products offered by Federal Prison Industries (FPI) when the FPI's product represents the best value to FAA, unless an exception below applies. In making a best value determination for FPI products, the CO must utilize the procedures in AMS Procurement Guidance T3.8.4.A.4. The CO must post an announcement for any procurement for products available from FPI in accordance with AMS Policy 3.2.1.3.12. This policy concerning FPI does not apply if:

(a) The monetary value of the procurement would not require a competitive procurement process under AMS Policy 3.2.2.4;

(b) A market analysis would not be required under AMS Policy 3.2.2.4 to support a single-source procurement of the product;

(c) Suitable used or excess products are available from the government;

(d) The products are acquired and used outside the United States;

(e) Services are being acquired; or

(f) FAA has obtained a waiver from FPI with respect to the particular product or class of products at issue in the procurement.

The CO may allow contractors with cost-reimbursement contracts to use Government sources when in FAA's best interest and the products or services are available. Contractors with fixed-price contracts to protect classified information may acquire security equipment through GSA sources after CO approval.

3.8.5 Leases Added 1/2006

3.8.5.1 Applicability Added 1/2006

This section applies to products, services and real property to the extent authorized by law. For Real Property specific policy and Guidance see Section 4.2 Real Property.

3.8.5.2 Policy Added 1/2006

It is the policy of the FAA to enter into leases for various products, services or real property when it is determined by the Contracting Officer, based on financial and other considerations, to be in the best interest of the Government compared to the outright purchase of such assets, real property, or services.

It is also FAA policy to avoid establishment of capital leases or lease purchases unless the requesting organization demonstrates they have complied with the requirements of OMB Circular A-11, Part 8, Appendix B “Scoring of Lease Purchases and Leases of Capital Assets”.

3.8.6 Strategic Sourcing Revised 7/2007

The FAA is leveraging its spending through strategic sourcing and will award contracts for products and services to help the agency optimize performance and minimize price to increase the value of each dollar spent. Therefore, when a needed product or service is available through a strategic sourcing contract, purchasing employees must use a strategic sourcing contract.

All strategic sourcing contracts are established following the AMS Policy and Guidance. To increase achievement of socio-economic acquisition goals, all strategic sourcing procurements must be balanced with socio-economic goals for small businesses, small disadvantaged businesses, women-owned small businesses, veteran-owned businesses, and service-disabled veteran-owned businesses in accordance with AMS Policy 3.6.1 Small Business Development Program.

When performance of any strategic sourcing contract requires access to FAA facilities and/or requires handling of sensitive material, the contract must include all of the appropriate clauses and/or restrictions and comply with FAA Order 1600.72A, Contractor and Industrial Security Program and FAA Order 1600.75, Protecting Sensitive Unclassified Information (SUI).

When an organization is going to strategically source a product or service, it must use mandatory government sources as described in AMS Policy 3.8.4 and Procurement Guidance T3.8.4A.

3.8.7 Construction Contracting Added 7/2007

3.8.7.1 Applicability Added 7/2007

This section applies to construction contracts, contracts for dismantling, demolition, or removal of improvements, and to the construction portion of contracts for products or services.

3.8.7.2 Policy Added 7/2007

If portions of multipurpose contracts are so commingled that priced deliverables for construction, service, or supply cannot be segregated and the predominant purpose of the contract is construction, the contract will be classified as construction.

3.9 Resolution of Protests and Contract Disputes

3.9.1 Applicability

Protest and contract disputes guidance and principles outlined herein apply to all FAA Screening Information Requests (SIRs), contract awards, and contracts.

3.9.2 Policy Revised 1/2017

By statute, and consistent with the Fundamental Principles of the AMS, the FAA Dispute Resolution Process, administered by the Office of Dispute Resolution for Acquisition (ODRA), serves as the Administrator's exclusive independent venue for bid protests and contract disputes arising under or relating to the AMS. Review of procurement controversies by the Administrator, through the ODRA, helps protect the quality and integrity of the Agency's acquisitions, promotes the public's confidence and ensures that AMS procedures and policies are followed.

The FAA is committed to the early and expeditious resolution of controversy using voluntary mediation, fact-finding, arbitration and other techniques collectively known as "alternative dispute resolution" (ADR). The FAA has pledged to utilize ADR techniques to the maximum extent practicable when such voluntary techniques will produce a fair and expeditious disposition of a controversy.

Protests concerning FAA SIRs or awards of contracts, and contract disputes arising under or related to FAA contracts, must be resolved or adjudicated at the agency level through the FAA Dispute Resolution Process set forth in 14 C.F.R, Part 17. Judicial review, where available, will be in accordance with 49 U.S.C. §46110 and will apply only to final agency decisions. The decision of the FAA will be considered a final agency decision only after an offeror or contractor has exhausted its administrative remedies for a protest or a contract dispute under the FAA Dispute Resolution Process.

3.9.3 Voluntary Waiver of Protest Revised 1/2017

Using procedures described herein, the FAA may determine that it is in the Government's best interest to include a voluntary waiver of protest provision or clause into a Screening Information Request (SIR), contract or class of SIRs or contracts. A provision or clause in such SIRs or contracts prohibiting protests is enforceable provided that:

(a) The Contracting Officer documents the rational basis detailing the factors considered in the determination that prohibiting protests is in the Government's best interest;

(b) The FAA Acquisition Executive (FAE) approves the written rational basis;

(c) The FAA Office of Chief Counsel is provided notice of the rational basis; and

(d) Prior notice is given to the Office of the FAA Administrator that the FAE intends to include a provision or clause that allows for the voluntary waiver protests in a SIR, contract or class of SIRs or contracts.

The use of a no protest provision or clause will only serve to limit protests of orders or contracts placed against an ordering vehicle such as an Indefinite Delivery, Basic Ordering Agreement or other master ordering agreement. Nothing in this section prohibits a challenge to any term or condition of the ordering vehicle made in accordance with the procedures of the FAA Office of Dispute Resolution for Acquisition (ODRA).

3.9.4 FAA Dispute Resolution System Revised 1/2017

The ODRA is established as an organization that is independent of agency organizations responsible for procurement actions. Pursuant to a delegation of authority by the Administrator, the Director of the ODRA manages the FAA dispute resolution process, promotes ADR, conducts dispute resolution proceedings and recommends action to the Administrator on matters concerning protests or contract disputes. The ODRA is authorized, among other things, to

- Adjudicate protests and contract disputes on behalf of the FAA Administrator;
- Promulgate rules of procedure;
- Issue orders and decisions in accordance with delegations of authority from the FAA Administrator;
- Exercise broad discretion to resolve protests and contract disputes;
- Use ADR to settle protests and contract disputes; and
- Provide fair and impartial "Findings and Recommendations", supported by the case record and law.
- Recommend changes to the FAA acquisition system based on matters brought before the office.

The Director of the ODRA may redelegate to Special Masters and Dispute Resolution Officers (DROs) such delegated authority as is necessary for efficient resolution of an assigned protest or

contract dispute, including the imposition of sanctions or other disciplinary actions.

The applicable ODRA rules of procedure are set forth in 14 CFR Parts 14 and 17, Procedures for Protests and Contract Disputes; Amendment of Equal Access to Justice Act Regulations, effective June 28, 1999. These ODRA Rules are incorporated by reference into this section. Further information and guidance concerning the ODRA dispute resolution process for contract disputes and protests can be found on the ODRA Website.

3.9.5 Initial Dispute Resolution at the Contracting Officer Level Revised 1/2017

Offerors and contractors initially should seek resolution of any concerns or controversies at the Contracting Officer level. Contracting Officers should make reasonable efforts to promptly and completely resolve such concerns or controversies, where possible, and will coordinate their dispute resolution efforts with the FAA Procurement Legal Division or their regional or center Assistant Chief Counsel's office. Attempts to resolve disputes at the contracting officer level do not waive or extend the deadlines set forth in 14 CFR Part 17 for filing at the ODRA.

3.9.6 Dispute Resolution at the ODRA Revised 1/2017

ADR is the primary means of dispute resolution that is employed by the ODRA. Upon request, the Office of Dispute Resolution for Acquisition will make available FAA DROs or appropriately qualified persons from outside the FAA to serve as neutrals in ADR proceedings involving protests and contract disputes. The parties may also employ a neutral of their own choosing. With the agreement of the interested parties, the ODRA may provide ADR services in advance of the filing of a contract dispute or bid protest with the ODRA.

The parties may use any ADR technique proposed by the parties that is deemed by the DRO or neutral to be fair, reasonable, and in the best interest of the parties, including, but not limited to, informal communication, mediation, fact-finding, and binding or nonbinding arbitration. Binding arbitration may be employed only if the protester or contractor and the FAA agree to use this method to resolve the merits of the protest or contract dispute. If binding arbitration is agreed to, the decision of the DRO or neutral arbiter will become a final agency decision. If the parties have not agreed to binding arbitration and are unable otherwise to reach an agreement on the merits of the protest or contract dispute through ADR, then the ODRA will adjudicate the matter to a final Agency decision.

3.9.7 Obligation to Continue Performance

The FAA requires continued performance with respect to contract disputes arising under or related to a contract, in accordance with the provisions of the contract, pending resolution of the contract dispute.

3.9.8 Matters Not Subject to Protest Revised 1/2017

The following matters may not be protested before the Office of Dispute Resolution for Acquisition:

(a) FAA purchases from or through, state, local, and tribal governments and public authorities;
(b) FAA purchases from or through other federal agencies;
(c) Grants;
(d) Cooperative agreements;
(e) FAA transactions placed against an ordering vehicle containing a voluntary waiver of protest clause pursuant to paragraph 3.9.3 Voluntary Waiver of Protest; or
(f) Other transactions that do not fall into the category of procurement contracts subject to the AMS.

3.9.9 Confidentiality of the ADR Process

Settlement discussions and documentation provided to facilitate settlement of the issues will be protected and confidential, to the extent provided by law, ADR agreements and ODRA Protective Orders.

3.10 Contract Administration

3.10.1 Contract Administration

3.10.1.1 Applicability

The types of activities included in the contract administration phase are:

- Issuing contract modifications;
- Monitoring contract deliverables;
- Assuring that subcontracting policies and requirements are followed; and
- Reviewing the contractor's invoices for payment.
- Closing completed contracts.

3.10.1.2 Policy

The terms and conditions of the contract will be the guidance in performing these tasks.

3.10.2 Subcontracting Policies

3.10.2.1 Applicability

This applies to contracts with the exception of real property and utilities, where a prime

contractor may need to subcontract a portion of the work.

3.10.2.2 Policy

The CO must consider requiring "Consent to Subcontracts" when the subcontract work is complex, the dollar value is substantial, or the Government's interest is not adequately protected by competition and the type of prime contract or subcontract.

The CO must consider conducting a Contractor Purchasing System Review for each contractor whose sales to the Government, using other than simplified purchases procedures, are expected to exceed $10 million during the next 12 months.

To the maximum extent practicable, the contractor must incorporate, and require its subcontractors at all tiers to incorporate commercial items or non-developmental items as components of items to be supplied under contract.

3.10.3 Government Property Revised 1/2015

3.10.3.1 Applicability Revised 10/2018

(a) This part prescribes policies and procedures for providing Government property to contractors; contractors' management and use of Government property; and reporting, redistributing, and disposing of contractor inventory.

(b) It does not apply to—

(1) Government property provided under any statutory leasing authority, except as to non-Government use of property;

(2) Property to which the Government has acquired a lien or title solely because of partial, advance, progress, or performance based payments;

(3) Disposal of real property;

(4) Software and intellectual property; or

(5) Government property that is incidental to the place of performance, when the contract requires contractor personnel to be located on a Government site or installation, and when the property used by the contractor within the location remains accountable to the Government. Items considered to be incidental to the place of performance include, for example, office space, desks, chairs, telephones, computers, and fax machines.

3.10.3.2 Policy Revised 10/2018

(a) Contractors are ordinarily required to furnish all property necessary to perform Government

contracts.

(b) Contracting officers will provide property to contractors only when it is clearly demonstrated—

(1) To be in the Government's best interest;

(2) That the overall benefit to the acquisition significantly outweighs the increased cost of administration, including ultimate property disposal;

(3) That providing the property does not substantially increase the Government's assumption of risk; and

(4) That Government requirements cannot otherwise be met.

(c) The contractor's inability or unwillingness to supply its own resources is not sufficient reason for the furnishing or acquisition of property.

(d) *Exception*. Property provided under contracts for repair, maintenance, overhaul or modification is not subject to the requirements of paragraph (b) of this section.

(e) Government property, other than foundations and similar improvements necessary for installing special tooling, special test equipment or equipment, will not be installed or constructed on contractor-owned real property in such fashion as to become nonseverable, unless the Head of the Contracting Activity determines that such installation or construction is necessary and in the Government's interest.

3.10.3.2.1 General. Added 10/2018

(a) Contracting Officers will—

(1) Allow and encourage contractors to use voluntary consensus standards and industry-leading practices and standards to manage Government property in their possession;

(2) Eliminate to the maximum practical extent any competitive advantage a prospective contractor may have by using Government property;

(3) Ensure maximum practical reutilization of contractor inventory for government purposes;

(4) Require contractors to use Government property already in their possession to the maximum extent practical in performing Government contracts;

(5) Charge appropriate rentals when the property is authorized for use on other than a rent-free basis; and

(6) Require contractors to justify retaining Government property not needed for contract performance and to declare property as excess when no longer needed for contract

performance.

(b) The FAA will not generally require to establish property management systems that are separate from a contractor's established procedures, practices, and systems used to account for and manage contractor-owned property.

3.10.3.2.2 Responsibility and Liability for Government Property Added 10/2018

(a) Generally, contractors are not held liable for loss of Government property under the following types of contracts:

(1) Cost-reimbursement contracts;

(2) Time-and-material contracts;

(3) Labor-hour contracts; and

(4) Fixed-price contracts awarded on the basis of submission of certified cost or pricing data.

(b) The contracting officer may revoke the Government's assumption of risk when the property administrator determines that the contractor's property management practices are noncompliant with contract requirements.

(c) A prime contractor that provides Government property to a subcontractor will not be relieved of any responsibility to the Government that the prime contractor may have under the terms of the prime contract.

(d) With respect to loss of Government property, the contracting officer, in consultation with the property administrator, will determine—

(1) The extent, if any, of contractor liability based upon the amount of damages corresponding to the associated property loss; and

(2) The appropriate form and method of Government recovery (may include repair, replacement or other restitution).

3.10.3.2.3 Contractors' Property Management System Compliance Added 10/2018

(a) The contract property administrator will conduct an analysis of the contractor's property management policies, procedures, practices, and systems. This analysis will be accomplished as frequently as conditions warrant, in accordance with FAA procedures.

(b) The property administrator will notify the contractor in writing when the contractor's property management system does not comply with contractual requirements, will request prompt correction

of deficiencies, and will request from the contractor a corrective action plan, including a schedule for correction of the deficiencies. If the contractor does not correct the deficiencies in accordance with the schedule, the contracting officer will notify the contractor, in writing, that failure to take the required corrective action(s) may result in—

(1) Revocation of the Government's assumption of risk for loss of Government property; and/or

(2) The exercise of other rights or remedies available to the contracting officer.

(c) If the contractor fails to take the required corrective action(s) in response to the notification provided by the contracting officer in accordance with paragraph (b) of this section, the contracting officer will notify the contractor in writing of any Government decision to apply the remedies described in paragraphs (b)(1) and (b)(2) of this section.

(d) When the property administrator determines that a reported case of loss of Government property is a risk assumed by the Government, the property administrator will notify the contractor in writing that it is granted relief of stewardship responsibility and liability. Where the property administrator determines that the risk of loss of Government property is not assumed by the Government, the property administrator will request that the contracting officer hold the contractor responsible and liable.

3.10.3.2.4 Transferring Accountability Added 10/2018

Government property will be transferred from one contract to another only when firm requirements exist under the gaining contract (see 3.10.3.2). Such transfers will be documented by modifications to both gaining and losing contracts. Once transferred, all property will be considered Government-furnished property to the gaining contract. The warranties of suitability of use and timely delivery of Government-furnished property do not apply to property acquired or fabricated by the contractor as contractor-acquired property that is subsequently transferred to another contract with the same contractor.

3.10.4 Quality Assurance

3.10.4.1 Applicability

Quality Assurance policy and guidelines are applicable to all acquisitions for systems, equipment, material, and services.

3.10.4.2 Policy Revised 10/2011

For all acquisitions, FAA will:

- Ensure appropriate quality assurance requirements are included;
- Require contractors to act on contractual quality assurance commitments;
- Ensure Government quality and reliability needs are met; and
- Accept only products that meet agreed to requirements.

Additionally, for NAS system acquisitions:

- Require the contractor to report the status of requirements linked to critical performance requirements at specified regular intervals;
- Coordinate with the Quality Assurance Office to ensure appropriate quality assurance requirements are incorporated; and
- Delegate in-plant quality assurance and acceptance authority to the Quality Reliability Officer or other Government agent.

3.10.5 Product Improvement/Technology Enhancement

3.10.5.1 Applicability

Product Improvement/Technology Enhancement guidance and procedures apply to all FAA procurements, agreements, real property, utilities, and commercial and simplified purchase method.

3.10.5.2 Policy

The FAA encourages contractors to submit Product Improvement/Technology Enhancement proposals for review at any time during the performance of a contract. The ability to continuously exchange, upgrade, modify, or add new features to equipment and software in response to increased air traffic activity and/or new advancements in technology and methodology is essential. Contractor proposals which are particularly innovative and address savings for the FAA may be given appropriate consideration in the negotiation.

3.10.6 Termination of Contracts

3.10.6.1 Applicability

This section applies to all FAA contracts, with the exception of real property and utilities.

3.10.6.2 Policy

The termination clauses or other contract clauses authorize contracting officers to terminate contracts for convenience, or for default, and to enter into settlement agreements.

The CO must terminate contracts, whether for default or convenience, when it is in the FAA's interest. The CO may effect a no-cost settlement instead of issuing a termination when (1) it is known that the contractor will accept one, (2) Government property was not furnished, and (3) there are no outstanding payments, debts due the Government, or other contractor obligations.

When the price of the undelivered balance is less than the cost of effecting a termination, the contract should not normally be terminated for convenience but should be permitted to run to completion.

3.10.7 Extraordinary Contractual Actions

3.10.7.1 Applicability

This section is applicable when the FAA intends to enter into, amend, or modify contracts in order to facilitate the national defense under the extraordinary emergency authority granted by Public Law 85-804 (referred to in this section as the "Act") as amended, and Executive Order 10789 (referred to in this section as the "Executive Order").

3.10.7.2 Policy

The FAA may authorize extraordinary contract relief pursuant to Public Law 85-804. Authority to provide such relief is retained by the DOT Secretary for indemnification requests, and by the FAA Administrator or designee for all other requests.

3.10.8 First Article Approval and Testing

First article testing and approval involves evaluating a contractor's initial, preproduction, or sample model or lot. FAA may utilize first article testing and approval to ensure that a contractor can furnish a product that conforms to all contract requirements for acceptance.

3.10.9 Closeout of Completed Contracts

The CO must close physically complete contracts and agreements in accordance with FAST Procurement Guidance. Closeout activities must include completion and signing of the Contract Closeout Checklist and a Contract Completion Statement.

3.11 Transportation

3.11.1 Applicability

Transportation guidance and procedures are applicable to all contracts in applying contract transportation and traffic management considerations in the acquisition of products, acquisition of transportation and transportation-related services, and transportation assistance with traffic management. The making and administration of contracts under which payments are made from

Government funds for (1) the transportation of products, (2) transportation-related services, (3) transportation of contractor personnel and their personal belongings, and (4) acquiring transportation or transportation-related services by contract methods other than bills of lading, transportation requests, transportation warrants, and similar transportation forms.

3.11.2 Policy

The CO must ensure that instructions to contractors result in the most efficient and economical use of carrier services and equipment through transportation and traffic management administration. The contract office must obtain traffic management advice and assistance in the consideration of transportation factors required for:

- SIRs and awards;
- Contract administration, modification, and termination;
- Transportation of property by the Government to and from the contractor; and
- Plants.

3.12 Reserved

3.13 Other Administrative Matters

3.13.1 Applicability

This section is applicable to all screening information requests and contracts.

3.13.1.1 Plain Language Added 7/2006

When the statement of work for a contract requires the contractor to deliver any document that will be published, either electronically or in hard copy, for dissemination outside the FAA, or for broad dissemination within the FAA, the document must comply with FAA Order 1000.36, "FAA Writing Standards."

3.13.2 Policy

3.13.2.1 AMS Contract Clauses and Provisions Revised 10/2018

AMS clauses and provisions used in screening information requests and contracts must be consistent with the procurement guidance and clause prescriptions, unless there is an approved rational basis for adopting a different approach. The Chief Counsel's office and Chief of the Contracting Office must approve in advance each such rational basis determination regarding the use or tailoring of a mandatory clause or provision.

3.13.2.2 Reserved

3.13.2.2.1 Reserved

3.13.2.2.2 Reserved

3.13.3 Reserved Revised 7/2013

3.13.4 Contract Data Reporting

The FAA will comply with the uniform reporting requirements of the Federal Procurement Data System.

3.13.5 Congressional Notification of Contract Awards

Through the Department of Transportation's Assistant Secretary for Governmental Affairs, the FAA will notify Congress of contract awards and contract modifications.

3.13.6 Seat Belt Use by Contractor Employees

The FAA will comply with the requirements of Executive Order 13043 entitled "Increasing Seat Belt Use in the U.S.".

3.14 Security

3.14.1 Applicability

This section is applicable to all screening information requests and contracts.

3.14.2 Policy

3.14.2.1 Contractor Personnel Security Program Revised 10/2018

The acquisition community must ensure an adequate level of security for contractor employees as stated in FAA Order 1600.72A, allowing for compliance with OMB Circular A-130, "Management of Federal Information Resources", Executive Order 12829 "National Industrial Security Program", and DOD Directives 5200.2 and 5220.22M.

All FAA employees and contractor and subcontractor employees are subject to the FAA's Insider Threat Detection and Mitigation Program (ITDMP) provided they meet the definition of an "FAA employee" and fall within the scope of the program as defined in FAA Order 1600.82. For more information on this Program, please see https://www.faa.gov/regulations_policies/orders_notices/ (FAA only).

3.14.2.1.1 Employment Suitability Revised 10/2007

Contractor employees (including contractors, subcontractors, or consultants) must be subject to the same investigative and personal identification verification requirements as Federal employees if in similar positions requiring recurring access to FAA facilities or access to FAA information systems or sensitive information.

3.14.3 Classified Information Revised 7/2007

The CO will ensure that all proposed and awarded procurement actions contain appropriate provisions and clauses if access to classified information is required, in accordance with The National Industrial Security Program Operating Manual, DOD 5220.22-M and FAA Order 1600.72A, Contractor and Industrial Security Program.

3.14.4 Sensitive Unclassified Information

The CO, in coordination with the service organization, will ensure that all contractual actions contain provisions and clauses to protect the unauthorized dissemination of FAA sensitive information. Such information may entail Sensitive Unclassified Information (SUI), For Official Use Only (FOUO), Sensitive Security Information (SSI), or any other designator assigned by the US Government to identify unclassified information that may be withheld from public release. The Freedom of Information Act (FOIA) provides in exemptions 2 through 9, the guidelines for withholding sensitive unclassified information from the public and how such information must be protected from unauthorized disclosure. Section 552a of Title 5, United States Code (the Privacy Act) identifies information, which if subject to unauthorized access, modification, loss, or misuse could adversely affect the national interest, the conduct of Federal programs or the privacy to which individuals are entitled.

3.14.5 Facility Security Program Revised 1/2019

The Facility Security Risk Management process, as developed through the FAA's Facility Security Management Program, FAA Order 1600.69C, must be an integral part of program concept, planning, engineering design, and the implementation of required protective measures maintained throughout the lifecycle for physical security enhancements.

3.14.6 Information Security and Privacy (IS &P) Revised 10/2018

The Federal Information Security Modernization Act, 2014 (FISMA), OMB Circular A-130, and other federal standards and regulations describe information security for all agency information that is collected, stored, processed, disseminated, or transmitted using agency or non-agency owned information systems. For additional FAA IS &P Program policy, see FAA Order 1370.121 at https://www.faa.gov/regulations_policies/orders_notices/ (FAA only). The contractor must comply with all applicable policies as indicated in the Statement of Work/Specification.

Regarding possible security breaches, in accordance with OMB Memorandum 07-16, when the

breach involves a Federal contractor or a public-private partnership operating a system of records on behalf of the agency, the agency is responsible for ensuring any notification and corrective actions are taken.

FAA will notify and consult with the United States Computer Readiness Support Team (US-CERT) regarding information security incidents involving the information and information systems that support the operations and assets of the FAA, including contractor systems that support the FAA.

Offerors must indicate in responding to SIRs for Information Technology (IT) or services in support of IT whether they will be using an international processing hub or exchange for FAA data or information, or if any subcontractors or third parties more than 50% foreign owned will be processing, storing, or backing up the data and information.

Protection of privacy is applicable to all FAA procurements including agreements, real property, utilities, credit cards, commercial and simplified purchase method. When the FAA contracts for the design, development, and/or operation of a system of records on individuals, the FAA will apply the requirements of the Privacy Act to the contractor and its employees working on the contract.

4 Policy for Critical Lifecycle Management Functions and Disciplines Revised 1/2012

Sound acquisition management requires that service organizations integrate and manage many critical functions and disciplines working to the common purpose of fielding high-quality, trouble-free products and services. These disciplines vary, depending on the type of investment program, but typically include configuration management, real property, integrated logistics support, test and evaluation, independent operational assessment, deployment planning, human factors, environmental, occupational safety and health, and energy considerations, information technology, systems engineering, security, system safety management, risk management, and data standardization. The following specific policy requirements apply to these functional disciplines. FAST contains additional guidance.

4.1 Configuration Management

4.1.1 Scope Revised 1/2008

Configuration management applies to all systems, sub-systems, equipment, components, and assets captured in the FAA Enterprise Architecture. This includes all NAS and Mission Support information technology hardware, software, firmware, documentation, interfaces, standards, test and support equipment, facility space, spares, training and courseware, and manuals. Configuration management begins with the baselining of requirements documentation and ends with decommissioning of physical assets or the termination of services. Before introducing new equipment or software, the responsible solution provider must prepare a change proposal and have it approved by the appropriate configuration control board. This is required for expenditure of both operations and facilities and equipment funding. Configuration management of FAA systems and equipment complies with all agency safety and security requirements. Detailed lifecycle configuration management policy and procedures are in FAA Order 1800.66.

4.1.1.1 Configuration Identification

Service organizations, regions, and other solution providers must identify configuration items and must develop appropriate configuration documentation to define each configuration item. This activity includes the development of a product top-down structure that summarizes the total units and configuration documentation for the system or configuration item, and the assignment of unique identifiers, which identify units, and groups of units, in a product. Configuration identification and product information must be maintained and readily available to all FAA decision-makers. Baselined documentation must be provided to the appropriate program, service organization, or national program support library, and must be maintained with all necessary links to the CM information management system. To ensure configuration management information is available to all decision-makers and CM practitioners in the FAA community, the central configuration management authority must be responsible for providing the necessary facilities and electronic tools to document, monitor, and CM information in the NAS.

4.1.1.2 Configuration Status Accounting

Service organizations, regions, and other solution providers must develop and maintain configuration information for their configuration items or products in a systematic and disciplined manner in accordance with this policy and national configuration management process and procedures. Status accounting information includes developing and maintaining site configuration data, and the incorporation of modification data on systems and configuration items. This configuration information must be available for use by decision-makers over the lifecycle of the product.

4.1.1.3 Configuration Control Boards

A configuration control board with an approved charter and operating procedures will be the official FAA-wide forum used to establish configuration management baselines and to approve / disapprove subsequent changes to those baselines. Proposed changes to configuration management baselines must be submitted to the appropriate configuration control board on the FAA-approved case file - NAS Change Proposal (NCP) form. A configuration control board must document its approval / disapproval decision on the FAA-approved configuration control decision form.

4.1.1.4 Commercial Off-The-Shelf, Non-Developmental Items, and Commercially Available Software

After FAA acceptance, Commercial Off-The-Shelf (COTS), Non-Developmental Items (NDI), and Commercially Available Software (CAS) systems must be maintained under configuration control. This control must entail the management of a performance specification, and a data package, if available. Control will require the establishment and maintenance of records indicating the version of COTS / NDI / CAS at specific locations. When identifying COTS as a proposed solution, Service organizations and other solution providers must analyze and consider

the impacts of vendor modification of COTS / NDI / CAS products during vendor production and routine vendor maintenance. Appropriate constraints and notification requirements of vendor changes must be incorporated into purchase agreements to enable management of product changes to the maximum extent possible.

4.1.2 Application Revised 1/2008

A configuration control board with an approved charter and operating procedure is the official agency-wide forum for establishing configuration management baselines and approving or disapproving changes to those baselines. Configuration control board charters and operating procedures record board membership and the programs and configuration items managed by the board. Proposed changes and associated decisions to configuration management baselines are submitted to the appropriate configuration control board on the appropriate agency-approved form.

4.1.3 Structure and Responsibilities Revised 11/2009

FAA configuration management has an enterprise-wide, multi-layer structure with each layer managing an increasing level of detail. The specific responsibilities of each layer are as follows:

FAA Configuration Management Authority:

- Coordinates the development and establishment of FAA configuration management policy, processes, and guidance;
- Assists lines of business, staff offices, service organizations, service areas, and other solution providers with development of CCB charters and operating procedures;
- Provides training, facilities, and electronic tools to document, monitor, and report configuration management information;
- Maintains a mechanism for assigning hardware names, asset tags, and identifiers for systems, interface documentation, and system documentation;
- Make accessible the NAS-MD-001, NAS Master Configuration Index Subsystem Baseline Configuration and Documentation Listing, using data available from the CM information management system. All configuration control boards follow the direction of the FAA Configuration Management Authority regarding the type, content, and availability of information in the information management system to ensure validity of data in NAS-MD-001.

A cross-functional team comprised of senior managers advises the Configuration Management Authority, serves as forum for addressing and resolving issues, and assists in the implementation of configuration management policy and solutions.

NAS Configuration Control Board:

- Controls changes to NAS systems and associated documentation not assigned to a lower-level CCB or not identified for control by the Joint Resources Council;
- Baselines Interface Requirements Documents and controls non-FAA or non-baseline

system interfaces to the NAS;

- Approves service organization, service area, and other solution provider CCB charters and updates;
- Resolves problems regarding NAS system requirements among service organizations or other solution providers;
- Approves changes to NAS technical documentation and ensures traceability of requirements from the NAS level to the system and subsystem level;
- Manages changes to the final program requirements document, and notifies the investment decision authority if those changes affect cost, schedule, or performance.

Service Organization Configuration Control Boards:

- Approve or disapprove proposed changes to configuration items under their purview for the lifecycle of the configuration item;
- Ensure all changes have been fully analyzed and coordinated with all organizations affected by the change;
- Refer to the NAS Configuration Control Board proposed changes that exceed their approval authority;
- Establish functional, allocated, product, and operational baselines for all NAS systems;
- Manage the site configurations of FAA facilities in accordance with FAA-STD-058, FAA Standard Facility Configuration.

Service-Area Configuration Control Boards:

- Control changes to facility equipment layout drawings, critical power panel designations, and unique regional equipment, as identified in their charters;
- Regularly validate the accuracy of baselined facility space and power panel documentation.

The service-area configuration management plan identifies the facilities that are subject to verification and audit and specifies the audit interval. The plan also documents the configuration management program, including the methodology and processes used to accomplish service-area configuration management tasks.

Mission Support Information Technology Configuration Control Board:

- Manages Mission Support information technology systems and associated documentation not assigned to a lower-level CCB or not identified for control by the Joint Resources Council except for data exchange standards;
- Baselines Interface Requirements Documents to Mission Support systems;
- Approves line of business staff office and other solution provider CCB charters and updates;
- Approves changes to Mission Support information technology technical documentation and ensures the traceability of requirements;
- Baselines the final program requirements document or specification.

Mission Support Line of Business Staff Office or Solution Provider Configuration Control Boards:

- Approve or disapprove proposed changes to configuration items under their purview for the lifecycle of the items;
- Ensures all changes are fully analyzed and coordinated with all organizations affected by

the change;

- Refers changes to the Mission Support IT CCB proposed changes that exceed their approval authority;
- Establish functional, allocated, product and operational baselines for all Mission Support systems. This includes establishing and documenting site configurations, including as- built equipment layout drawings and critical power panel designations, and creating baseline documentation for FAA information technology facilities.

NAS and Mission Support Information Technology Acquisition-Level Configuration Management:

Service organizations, LOB staff offices, and other solution providers charged with providing solutions to Enterprise Architecture requirements do the following:

- Establish, implement, and maintain configuration management plan(s) that document the configuration management program, including the methodology and processes used to accomplish configuration management tasks;
- Include requirements for configuration management planning, process, procedures and products in all acquisition contracts;
- Document transition plans and activities for field organizations; and
- Manage the lifecycle of configuration items and associated baseline documentation, which may include training material, courseware, and logistics support documentation assigned to them.

4.1.4 Activities Revised 11/2009

FAA lines of business, staff offices, service organizations, service areas, and other solution providers develop the infrastructure, processes, and documentation necessary to conduct the following configuration management activities:

Planning and Management: Plan, coordinate, document, and manage all tasks necessary to manage the configuration of assigned enterprise architecture products throughout all phases of the lifecycle management process. A configuration management plan formalizes processes and procedures and roles and responsibilities, and ensures continuity of configuration management practices at all levels of management.

Configuration Identification: Identify the configuration items of the total product and develop documentation to define each. This activity includes development of a top-down configuration management structure for the product, and the assignment of unique identifiers for the units and groups of units in the product. Configuration identification and product information is maintained and be readily available to all FAA decision-makers.

Baseline Management: Establish and maintain a configuration baseline that represents technical aspects of approved product requirements. Baselined documentation is maintained by the appropriate line of business program office, staff office, or service organization, and is accessible in a secure environment through the program support library.

Configuration Change Management: Identify, document, coordinate, evaluate, and adjudicate proposed changes to a configuration baseline. Approved changes are documented, implemented,

verified, and tracked to ensure incorporation into all impacted assets and their support infrastructure.

Configuration Status Accounting: Capture, store, and access the configuration information needed to manage products and product information. Configuration information must be electronically available for use by decision-makers over the lifecycle of the asset.

Configuration Verification and Audit: Periodically audit operational products to ensure consistency between the product and its baseline documentation. This activity includes verification of facility baselines, the incorporation of approved modifications, and product audits after commissioning.

Information/Data Management: Manage configuration data and information according to requirements in FAA Order 1375.1, Information/Data Management Policy.

4.1.5 Commercial Off-The-Shelf, Non-Developmental Items, and Commercially Available Software Revised 1/2008

Commercial off-the-shelf, non-developmental items, and commercially available software are maintained under configuration control after acceptance into use by the FAA. This control requires management of the performance specification and data package, if available, and the establishment and maintenance of records indicating the version at specific locations. When identifying COTS as a proposed solution, FAA lines of business, staff offices, service organizations, and other solution providers must analyze and consider the impact of vendor modification of products throughout the intended service life. Appropriate constraints and notification requirements of vendor changes must be incorporated into purchase and maintenance agreements.

4.1.6 Local Changes Added 1/2008

Local changes affecting in-service baselined systems must be evaluated by the appropriate line of business, staff office, or service organization and can be authorized only by the responsible configuration control board.

4.1.7 Operational Configuration Management Policy Added 1/2008

AMS configuration management policy applies to all operational assets. Detailed operational NAS configuration management policy is in Order 1800.66, paragraph III-4. Detailed operational Mission Support IT configuration management policy is in paragraph III-4.

4.1.8 Mission Support IT CM for Enterprise Data Centers and Other IT Facilities Added 1/2008

Line of business/staff office configuration management personnel validate, on a regular basis, baselined facility space and power panel documentation for accuracy. The line of business/staff office configuration management plan identifies the baselined facilities subject to verification

and audit and specifies the audit interval. The plan also documents the configuration management program, including the methodology and processes used to accomplish IT facility configuration management tasks.

4.2 Real Property

4.2.1 Applicability Revised 1/2008

This policy applies to the acquisition, management, and disposal of real property interests by lease, purchase, condemnation, or otherwise, as well as services related to such acquisition, management, and disposal, other related services, and utilities. This policy codifies the authority for real property transactions by FAA; however, it must be read in conjunction with Procurement Policy 3.0. In the event of a conflict between these provisions and Procurement Policy 3.0, these provisions will govern. Roles and responsibilities in real property transactions, and definitions of real property terms are found in Appendix 1 of this Chapter. For clarification of real property terms and to obtain real property information not found in this Chapter, contact ALO-200.

4.2.2 Guiding Principles Revised 1/2012

The acquisition of real property interests differs from other procurement types in important ways. For example, FAA's need for a specific site, location, or other mission-driven requirement, may limit the alternatives available for consideration in the real property acquisition process. FAA's primary goal is to acquire necessary real property interests to meet mission requirements. FAA is committed to meet applicable sustainability acquisition and management requirements, to the extent practicable. To that end, FAA must be a good steward of the real property interests/assets acquired for the mission throughout the asset lifecycle, including the acquisition process, in-service management of the asset, and disposal or other final disposition of the asset/interest. The acquisition process requires sound business judgment and a competent and professional staff having the highest integrity, with authority delegated to the lowest responsible level. In addition to the Guiding Principles provided in Acquisition Management System Policy Section 3.1.3, Fundamental Principles, the FAA real property guiding principles will:

- Enable the selection of the lessor with the best value to satisfy FAA's mission;
- Focus on timely, cost efficient, and quality contract performance;
- Promote discretion, sound business judgment, and flexibility at the lowest levels while maintaining fairness and integrity;
- Provide streamlined methods and initiate innovative processes to conduct timely and cost-effective procurements;
- Promote open communication and access to information throughout the procurement process and encourage use of electronic methods for information exchange;
- Encourage competition as the preferred method of contracting;
- Permit single-source contracting when necessary to fulfill the FAA's mission;
- Allow the use of a range of lease types and transactions best suited to a particular procurement;
- Provide an internal process for resolving protests and disputes in a timely, cost-effective

and flexible manner;
- Promote high standards of conduct and professional ethics;
- Require appropriate file documentation to support business decisions;
- Assure adequate checks and balances;
- Ensure public trust; and
- Promote and increase sustainable real property acquisition, management and disposal practices throughout the asset lifecycle, to the extent feasible and practicable within the agency mission and budget constraints.

4.2.2.1 Contracting Authority Revised 10/2014

The FAA Administrator has been given broad statutory acquisition authorities in Title 49 United States Code. Pursuant to the provisions of Title 49, the Administrator is the final authority for carrying out all functions, powers, and duties of the FAA Administration relating to the acquisition and maintenance of property and equipment. The Administrator has broad authority "to enter into and perform such contracts, leases, cooperative agreements, or other transactions as may be necessary to carry out the functions of the Administrator and the Administration . . .with any Federal agency, or any instrumentality of the United States, any territory, or possession, or political subdivision thereof, any other governmental entity, or any person, firm, association, corporation, or educational institution, on such terms and conditions as the Administrator may consider appropriate." (49 U.S.C. 106(l)(6).) In addition, the Administrator has the authority to enter into leases that require the use of appropriated funds for terms of up to 20 years. (49 U.S.C. 40110.)

The FAA Administrator may establish contracting activities and delegate to the Acquisition Executive broad authority to manage FAA contracting functions. The Acquisition Executive is authorized to appoint Chiefs of the Contracting Office (COCOs) and redelegate the contracting authority to them. The COCO may redelegate the contracting authority to individuals within their management area who have met the training requirements of the AMS and have demonstrated the appropriate knowledge and experience needed to execute this authority on behalf of the Government. Those who have been delegated contracting authority include procurement and real estate contracting officers (RECOs), logistics management specialists, and managers of the purchase card program.

The delegation of contracting authority to the RECOs, like that to COs and other qualified persons is by written warrant or other certificate of appointment. Contracts, leases, agreements, grants and other transactions may be entered into and signed on behalf of the FAA only by RECOs with a written certificate of appointment. The certificate of appointment or RECOs warrant must expressly state the types of transactions authorized by the delegation, and any limitation to the authority granted. If the authority is not specified in the warrant or certificate of appointment, that authority does not exist. The delegated authority of individual employees below the COCO is not transferable. For further information, please see “Warrant Levels for RECOs.” Information on the limits of the contracting officer's authority must be readily available to the public and FAA personnel.

The RECO must have warrant authority commensurate with the total estimated potential value (see 6.0 Training, in Real Estate Guidance) of a transaction. Modifications after the original

award are considered standalone actions when calculating the total estimated potential value; therefore, a Contracting Officer's warrant needs to have a dollar limitation sufficient to award the total of a modification, but not the entire value of the contract, order, lease or agreement.

Key contracting duties and responsibilities for fund certification, are to be separated among individual people. For a particular requirement, the same person must not requisition, certify funds availability, approve, and obligate funds.

Acquiring real property interests and utilities is a time-consuming process, and involvement of the Real Estate Contracting Office (RECO) at the earliest opportunity will expedite the procurement. Such early involvement will allow for needed planning and coordination, and will ensure that all applicable statutory and regulatory requirements are met and the acquisition is completed in sufficient time to meet the FAA's needs.

4.2.2.2 Real Property Definition Added 10/2008

Real property is defined in Appendix C of AMS policy.

4.2.3 Policy Revised 1/2008

The procurement process is to be conducted following best commercial business practices, in a fair and equitable manner. Real property interests, related services, and utilities will be acquired by the competitive method whenever practical and reasonable. All real estate transactions (acquisition, management and disposal) will comply with all Federal statutes, Executive Orders, Federal regulations, FAA Orders and the Acquisition Management System (AMS). If there is a conflict between the AMS and FAA Orders, the AMS provisions will govern.

4.2.3.1 Legal Coordination of Real Property Actions Revised 7/2016

Certain real property actions will be reviewed in accordance with the legal coordination policy set forth in 1.2.14 of AMS policy and Real Property Guidance Section 7.0. Legal coordination is required for: 1) all non-competitive acquisitions of real property having a total value exceeding $10,000; or 2) all competitive real property acquisitions, including, but not limited to, new or succeeding leases, lease renewals, and lease modifications having a total value over $100,000; 3) all condemnations, purchases and disposals of interests in real property; and 4) all additions and revisions, other than those revisions to correct typographical errors, to the published real property document provisions/clauses.

4.2.3.2 Request Revised 1/2008

The acquisition process may start with an informal request; however, prior to issuance of a Solicitation For Offer or proposed Lease contract, a signed request from the using service/requiring office must be received. If rental or other costs are involved in the acquisition, a certification of funding must be received prior to any obligation of funds or award of a

lease/contract. One document may serve as both the request and the funding certification.

4.2.3.3 Requirements Revised 1/2012

Real property requirements must be fulfilled by a competitive process whenever practicable and in the best interest of the FAA. The RECO and the program office requiring the asset will meet as early as possible to do the following: review, clarify and streamline acquisition requirements and determine the options available to 1) ensure that special requirements and alternative solutions, where appropriate, are considered; 2) define the appropriate area of geographic consideration (i.e., delineated area); and 3) ensure that FAA-mandated requirements are met, including incorporating sustainability/environmental/energy principles in the acquisition process, if practicable. The RECO may begin the initial acquisition process with a Purchase Request for any amount, including zero dollars from the using service/requiring office. However, the RECO must not issue any formal requests for information, quotes or Solicitation for Offers (SFO) until the requirements are finalized, any required business case approvals are received and it has been confirmed that certified funds for the current fiscal year are available for obligation. The RECO may provide preliminary market information for purposes of supporting business cases if requested by the requiring office.

4.2.3.3.1 Succeeding Leases/Renewal Leases Revised 7/2012

Prior to determining whether to enter into a succeeding lease (i.e., the lease expires at the end of the term and no renewal option(s) remain), or to renew an existing lease (i.e., the exercise of an option to stay in the existing location), the RECO must consult with the using service/requesting office and obtain a statement of continuing need. Additionally, in the case of space leases, the facility subject to the expiring lease must be in compliance with current life safety, seismic safety, and to the extent practicable high performance sustainable building (HPSB) requirements.

If the agency is considering remaining at the current location, then the current Lessor must be contacted regarding potential upgrades to the real property, to ensure that the space will comply with all requirements contained in the proposed new lease, and that the Lessor is willing to execute the proposed lease. If the Lessor is unable or unwilling to support the necessary improvements, or other changes necessary to meet the FAA's current requirements, then the FAA must either:

1. Relocate to another location, or
2. The Spaceholder's Council may consider mission-related reasons to stay. In this case, the justification to stay must be documented in the project's business case and approved by the appropriate Spaceholder's Council. Alterations, upgrading, and expansion/reduction of requirements must also be considered and included, as appropriate, in the subsequent acquisition and final documentation.

When fulfilling the using service/requesting office requirements, the RECO **must** use the standard land lease, space lease, utilities and outgrant templates and associated forms for all new, succeeding and renewal lease acquisitions.

In accordance with the provisions of 49 USC 40110(c)(1), the RECO may enter into a lease with

a term of up to 20 years, regardless of whether appropriations sufficient to pay the rent for the lease term have been obligated. Thus, the RECO is authorized to award a lease without having any funds on the date the lease is signed (i.e., the RECO can sign a lease in the current fiscal year, even though rent commencement does not occur until the next fiscal year).

The RECO must ensure that all clauses incorporated in the succeeding lease agreement are current and applicable. In addition, if the term of a cost lease is less than 20 years, including all renewal options, and if the RECO determines that the best method to fulfill a short-term continuing need is by extending the current lease, the Supplemental Lease Agreement must contain all current clauses. However, if the lease has been effective for over 20 years, the RECO must negotiate a new or succeeding lease.

In addition, all proposed permanent changes to the standard lease clauses must be approved by ALO-200 and AGC-500. The RECO must maintain signed approvals in the lease file.

Note: Any changes to lease clauses that are to be applied to a single case must be approved by Regional Counsel each time they are proposed.

4.2.3.3.1.1 Timing of renewal/succeeding lease efforts Added 1/2008

In order to complete a renewal or succeeding lease transaction prior to the lease expiration date and prevent FAA from becoming a holdover tenant, the RECO must commence the renewal process, or the process of entering into a succeeding lease, at least 18 months prior to the lease expiration date for all FAA direct land and space leases. For all GSA controlled space, the RECO must commence the renewal process at least 24 months prior to the lease expiration date. This 18-month period is a suggested minimum. Each lease transaction should be considered individually by the RECO and the RECO may determine to afford the transaction additional time if the RECO is aware of issues that could jeopardize timely completion of the lease transaction.

4.2.3.3.1.2 Emergency Reservation of Expiring Funds for Continued FAA Occupancy

Added 1/2008

If a continuing need has been determined and it appears the lease will expire without a Supplemental Lease Agreement for a short-term extension, or succeeding lease has not been awarded, then

- The RECO must notify his manager, regional counsel, and the LOB Budget office of issue.
- The RECO must continue negotiating an extension via an SLA for continuing payments at the current lease rental rate.
- If the lessor still refuses to sign a temporary agreement, then the RECO must take steps to ensure that sufficient funds are either reserved, or set aside for settlement of the holdover period. A holdover period should not exceed 6 months.
    - If extensions go on longer than 6 months or if the lessor wants the FAA to leave the premises, the RECO may be in a condemnation posture. The RECO needs to prepare the affected LOB and discuss setting aside funds for a potential condemnation. See Real Estate Guidance 1.1.19: Condemnation

- During the 6 months of continued occupancy past the expiration date, the RECO will continue to negotiate an extension or new lease agreement.
- However, prior to the end of the current fiscal year, the RECO will notify the affected LOB of the potential need to reserve the minimal funds necessary to pay for the FAA's occupancy during the continued occupancy period, and provide an estimate. If the LOB wishes to reserve funds from the soon to be expiring budget year, they must provide a requisition to the RECO, and the RECO will reserve the estimated rent as an emergency contract. The RECO will send a formal memo to the Accounting office of the emergency reservation of funds, and to await further instructions from the RECO on when to make any payments. Note: The RECO must document in the file a justification for the emergency reservation of funds.
- If the LOB validates, it can pay the back rent from current year funds, it is not necessary to perform the emergency reservation of funds.
- Once a final lease agreement is negotiated, the RECO must perform a modification to the emergency lease to document the conversion to a fully executed lease contract. Any difference in lease rental payment should be settled and paid at that time.
- For additional information please see guidance on hold over tenancy. See Real Estate Guidance 1.1.5.2: Succeeding Leases/Lease Renewals

4.2.3.3.2 Other Requirements to consider Added 1/2008

4.2.3.3.2.1 Administrative Space Order 4665.4 and GSA-Controlled Space Request Revised 7/2016

The RECO and the LOB must use the guidelines from the FAA Order 4665.4A Federal Aviation Administration (FAA) Administrative and Technical Space Standards. This order provides standards for the construction, reconfiguration and consolidation of administrative and technical spaces; promotes workforce mobility and workplace flexibility; and improves the Agency's space utilization rate.

This order applies to those responsible for planning, procuring, implementing, maintaining, or occupying administrative and technical spaces in the FAA. It also applies to any other person or entity who has a formal written agreement with the FAA to plan, implement, or maintain FAA space.

4.2.3.3.2.1.1 General Services Administrative (GSA) Space Request Revised 7/2016

Requesting Line of Business (LOB) office must obtain prior approval for space requests from the ALO-200 Strategic Planning by submitting a documentation for the space which contains the following: a completed SF-81/SF- 81A or a written document with space request, justification/reason for request, complete staffing (workstation patterns, floor plans if available), office space per person, support space, special space by type, number of parking spaces required for government owned vehicles.

For all new, renewal, and lease expiration for General Services Administration (GSA) controlled

space, the RECO must notify ALO-200 for prospectus projects at a minimum of 36 months and non-prospectus projects at a minimum of 18 to 24 months, prior to execution of a GSA Occupancy Agreement (OA). Prior to making any commitment to the Regional GSA regarding prospectus level projects, the point of contact (POC) for the National GSA Rent Program must notify ALO-200. Notification must take place at a minimum of 36 to 60 months prior to execution of a GSA OA.

The LOB servicing office must ensure the use of available Government-owned space before leasing or otherwise acquiring space. The LOB office must follow the guidance for "Chief Financial Officer Review of GSA Space Request over $10 Million" for all GSA-controlled space.

4.2.3.3.2.2 No-Cost Land on Airport Memorandum of Agreement Added 1/2008

The RECO must use the No-Cost Land on Airport Memorandum of Agreement for transactions with airport sponsors who receive Airport Improvement Funds. Land for NAVIDS on airports without Airport Grant Assurances (including military airports) will be leased using the standard on airport land lease template. When an airport has received an Airport Grant Assurance requiring it to provide rent free space to the FAA, the RECO must follow Rent-Free Guidance (2.4.5: Appendix E: Rent-Free Guidance) until otherwise notified.

4.2.3.3.2.3 Rural Development Act Requirements Added 1/2008

The FAA requesting office/using service must give first consideration to rural areas when searching for locations for new space, other facilities (i.e. research and development facilities, warehouses, labs, clinics, etc.), and land acquisitions, unless mission or program requirements call for urban areas. A rural area is defined as a city, town, or unincorporated area that has population of 50,000 inhabitants or less, other than an urbanized area immediately adjacent to a city, town, or unincorporated area that has a population in excess of 50,000 inhabitants.

4.2.3.3.2.4 Security Revised 1/2019

In developing & finalizing lease requirements, the RECO must coordinate with both the LOB and the Servicing Security Element (SSE) to comply with facility security requirements of FAA Order 1600.69C Facility Security Management Program; and the responsible AXP Office to comply with the personnel requirements of FAA Order 1600.72A, Contractor and Industrial Security Program. It is the responsibility of the Operating Office in coordination with the SSE and the responsible AXP Office to determine whether lessor employees have a need for frequent and recurrent access that supports the issuance of FAA badges. Prior to executing any lease or lease renewal requiring lessor employees to have unescorted access to FAA systems, information, or resources located in the leased space, the LOB must designate the position risk levels using the Office of Personnel Management's Position Designation Automated Tool available at https://www.opm.gov/suitability/suitability-executive-agent/position-designation-tool/#url=automated-Tool. The LOB must submit the completed Position Designation Records to the responsible AXP office for approval. If the responsible AXP office makes changes to the Position Designation Records submitted for their signature, the LOB will accept the changes.

4.2.3.3.2.5 Seismic Safety Revised 10/2014

It is FAA policy to provide/acquire space that complies with current federal standards for seismic safety. This policy is applicable to all space, whether such space is newly leased space, leased space subject to renewal, the purchase or construction of new buildings, or space undergoing major, renovations, where cost exceeds 50% of replacement value, in existing buildings. This policy is in accordance with the requirements of Executive Order (E.O.) 12699, E.O. 12941 and P.L. 101-614. In existing buildings, FAA follows National Institute of Standards and Technology (NIST) RP-8, Standards for Seismic Safety for Existing Federally Owned or Leased Buildings, December 2011. RP-8 requires a "Seismic Safety Certification" that complies with the requirements of the American Society of Civil Engineers (ASCE) Standard 31-03, *Seismic Evaluation of Existing Buildings*, to be performed by a qualified structural engineer, prior to signing a new lease, renewing an existing lease, or granting rights to locate a privately owned structure on federal property. For new construction, the minimum standard for seismic compliance is the current edition of the International Building Code (IBC). In addition, the construction must be certified by a licensed structural engineer as meeting the requirements of the IBC.

RP-8 Section 1.3 lists exemptions from the seismic compliance requirements, and an exception that may relieve an Agency of the seismic safety certification requirement. However, these exemptions must be applied on a case-by-case basis. Further details on Seismic Safety procedures are found in Real Property Guidance section (2.4.8 Appendix H: Seismic).

4.2.3.3.2.6 Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (49 CFR Part 24) Added 1/2008

To the extent that it is applicable to FAA real property transactions, FAA RECOs must comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (promulgated in 49 CFR Part 24). See http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title49/49cfr24_main_02.tpl and http://www.fhwa.dot.gov/real_estate/archives/uafnl99.cfm. Provisions of the Uniform Act are mandatory and are applicable to each Federal agency that administers programs or provides financial assistance for projects, which involve land acquisition or relocation assistance.

4.2.3.3.2.7 Vehicle Policy Added 1/2008

To the extent that parking space is available and affordable, it is the policy of the FAA to provide adequate parking for official Government vehicles and adequate free parking for employee vehicles at all FAA-owned and leased facilities. In order to promote fuel conservation, reduce traffic congestion, reduce demand for parking spaces and reduce air pollution, the FAA will make available as many parking spaces as possible for the use of vanpools/carpools. For more information please see vehicle guidance (2.4.2 Appendix B Vehicle Parking Guidance).

4.2.3.3.2.8 Environmental / Sustainability / Energy Considerations Revised 7/2016

The FAA supports, to the extent financially feasible and allowable by its mission, all environmental, energy savings and sustainability laws, regulations, and orders applicable to environmental/energy/sustainable areas. The RECO must follow the requirements as outlined below and in the corresponding provisions in the Real Estate Guidance. FAA SOs/LOBs must use an ISO 14001 Environmental Management System (EMS) to manage their environmental aspects, including Environmental Requirements, Energy and Sustainability aspects described in Sections A, B and C, below. For further information, please review the real estate guidance for land and space.

A. Environmental Requirements.

1. Environmental Due Diligence: FAA real property transactions are subject to the requirements of FAA Order 1050.19B, Environmental Due Diligence Audits in the Conduct of FAA Real Property Transactions, in order to identify and minimize potential environmental liabilities associated with the condition of the property and past activities at the site. Environmental due diligence requirements must be completed prior to executing contracts for the initial acquisition or disposal of real property, including the conveyance, sale or transfer of any FAA land, buildings, and structures.
2. National Environmental Policy Act (NEPA): Before acquiring (by lease, purchase, or otherwise) any additional land (new sites or to expand existing sites), the FAA must comply with all applicable requirements of the National Environmental Policy Act (NEPA) in accordance with the latest version of FAA Order 1050.1, *Environmental Impacts: Policy and Procedures.* The appropriate level of environmental review must be determined by the program office Environmental Specialist or the project designated Environmental Specialist. The RECO must obtain written notification from the program office that all applicable NEPA requirements have been met prior to proceeding with the land acquisition. The written notification must be placed in the real estate file.

B. Energy Requirements

Energy Star certified spaces: Section 435 of the Energy Independence and Security Act of 2007 (EISA) prohibits Federal agencies from leasing buildings that have not earned an Energy Star label after December 19, 2010 unless the space requirement comes within the specific exemptions provided in the EISA statute. For the list of exemptions, see Real Estate Guidance 2.4.1 Appendix A: Space Administrative Guidance. In order to ensure compliance with EISA Section 435, when a RECO leases space greater than or equal to 10,000 gross square feet, the building must have earned an Energy Star label in the most recent year, or the ownership must commit to earn the Energy Star label within one year following the lease execution. The RECO can determine the acquisition is financially feasible if the rental offered for a conforming building is no more than 10% over the market rate. If the RECO determines the cost of a conforming building is not financially feasible, documentation must be maintained in the real estate file.

C. Sustainability Requirements

Executive Order (EO) 13693, *Planning for Federal Sustainability in the Next Decade,* sets goals for federal agencies to make their building inventories compliant with the February 2016, *Guiding*

Principles for High Performance and Sustainable Buildings (Guiding Principles). The Guiding Principles establish building standards for: integrated design, energy performance, water conservation, indoor environmental quality, environmental impact of materials, and climate resilience.

Leases are no longer included in calculating compliance with the Guiding Principles (only owned buildings are included). However, the RECO should strive to incorporate as many of the Guiding Principles as possible in new lease actions when financially feasible. This may include leasing in buildings that have received Leadership in Energy and Environmental Design (LEED) certification. The space acquisition must be considered financially feasible if the rental offer for space in a conforming building is no more than 10% greater than the market rate for a comparable conventional building in the same rental market.

4.2.3.3.3 Budgetary Review Revised 4/2015

Funding requirements for all real property transactions must be submitted to Real Property Division, ALO-200, the appropriate budget office and the service area budget lead for review prior to the RECO committing the Government (signing the contract) to ensure compliance with 4.2.3.3.1 Succeeding Leases/Renewal Lease which states "In accordance with the provisions of 49 USC 40110(c)(1) , which references 1341(a)(1), a RECO may not make or authorize an expenditure or obligation exceeding an amount available in an appropriation or fund for the expenditure or obligation". For further information see 3.1.4 Budget Review and Approval.

4.2.3.4 Procurement Method Revised 10/2019

The RECO makes the determination of whether the requirement will be satisfied through competition or single-source acquisition. A preliminary assessment, such as an informal market survey via phone calls of potential available sources within the geographic area of consideration (i.e., delineated area), may be needed to assist in the determination of the procurement method. When developing a lease procurement strategy, the RECO must first consider acquiring buildings that have earned the current year Energy Star label, and buildings conforming to the Guiding Principles (LEED Silver and above certified buildings may be used to identify buildings that potentially conform to the Guiding Principles) as well as buildings that meet appropriate life safety and seismic certification requirements.

Competition is the preferred method of procurement and should be used whenever practicable and reasonable. Competition is obtained by providing two or more sources an opportunity to express an interest in satisfying FAA's requirements. Competition is appropriate when the requirement is not site or location specific and reasonable possibility exists that there is more than one provider that can meet the FAA's needs. Interest from potential sources may be expressed either orally or in writing.

The single-source method of procurement is appropriate when technical requirements, business practices, or programmatic needs have determined that a specific location, site, or unique need is required to meet the FAA's mission, or when it has been determined that only one source is reasonably available that can meet the requirement. (See AMS 3.2.2.4). Advertising is not

required if the resultant acquisition is for a site-specific location and deemed a single-source procurement.

4.2.3.5 Solicitation for Offers Revised 1/2012

The RECO works with the program office to determine and define the delineated area required to acquire space that will fulfill the mission of the FAA and will consider buildings which meet Guiding Principles and EISA requirements when establishing the delineated area. For space leases, the delineated area must be of sufficient size to ensure competition between buildings that meet HPSB Guiding Principles and EISA requirements for Energy Star buildings, unless it has been demonstrated in the market survey, that there is no space available that meets the above criteria and that leased construction is not economically feasible. The SFO has been revised to include appropriate provisions ensuring compliance with sustainability requirements. Refer to the Solicitation for Offerors (SFO) template for further information.

The RECO is not required to solicit offers from all sources within the geographic area of consideration. It is only necessary that offers be solicited from a sufficient number of sources (at least two sources are sought, if possible) to promote competition to the extent practicable and reasonable.

Data obtained during the market survey, advertisement, and/or appraisal can also be used to determine a range of reasonable rents charged by Lessors within the area of consideration for space or land similar to that being acquired by FAA. (See below for more information.)

For single-source procurements, a market survey and/or appraisal should be conducted to determine or verify the reasonableness of the offer. At least three sources of data should be queried to ensure the validity of the data. If single-source procurement is selected, which is often the case for most FAA land acquisitions, the RECO must document the justification/determination for a single-source acquisition, and must maintain the documentation in the lease file, under the Negotiator Report.

The RECO will send the Solicitation for Offerors (SFO) or proposed lease contract to those offerors who meet the requirements of the FAA, as described above.

4.2.3.5.1 Market Survey/Advertisement/Appraisal Added 1/2008

When utilizing the competitive method of procurement, the FAA must conduct a market survey to obtain market information and identify potential sources within the geographic area of consideration or market once the lease requirements have been finalized. Market survey data can be used to: determine the availability of properties within the area of consideration; eliminate unsatisfactory properties from consideration; determine the willingness of landowners to provide property for the FAA's use; determine fair market rents; determine suitability of responses to advertisements; and, determine the estimated cost for the leasehold. When possible, the survey should include on-site visits with the requesting office to determine if suitable properties are available, or if properties offered in response to an advertisement meet requirements. Prior to conducting the market survey, the FAA should have developed a draft Solicitation for Offer or a

draft lease contract defining specific requirements. The draft SFO or draft lease contract should be reviewed with the offer or offeror's representative to ensure a full understanding of FAA's requirements.

As mentioned above, advertising is not required for the acquisitions of site-specific locations or those determined to be appropriate for single source procurement. Also the requirement need not be publicly advertised when the FAA determines that it is not warranted, or reasonable competition has been achieved without advertising. If the RECO determines that advertising is required, the publicizing method that should be used is that which is most likely to result in the receipt of offers appropriate to satisfy the specific requirement. Acceptable methods of advertisement include, but are not limited to, publication of the requirement in a newspaper in the jurisdiction where the requirement is located, and publicizing the requirement on a real estate or other website.

In addition to the market survey information, an appraisal may/should be obtained by the RECO to assist in the determination of the fair market rent, and of the value or just compensation for the purchase of a specific property. An appraisal is a formal written statement that a qualified appraiser prepares independently and impartially, giving an opinion, as of a specified date, of the defined value of a described parcel of real property, supported by the presentation and analysis of relevant market information.

4.2.3.5.2 Use of Brokers/Agents Added 7/2016

RECOs are prohibited from entering into any type of contract or agreement, including a letter contract, that acknowledges, authorizes, or any way states or implies that a real estate broker or a real estate agent represents the FAA or Government in a real property transaction. This prohibition does not restrict the RECO from contacting Listing or Cooperative Brokers or real estate agents to gather information concerning properties available for sale or lease within a particular geographic delineated area and/or from requesting or receiving market information and rental rates/sale prices with respect to that area. Neither does this section prohibit the RECO from acknowledging, if asked, that a Cooperative Broker was instrumental in bringing a particular property to the RECO's attention.

4.2.3.6 Evaluation of Offer(s) Revised 1/2008

If the competitive method is used, once offers are received, selection for final award may be made. Selection from the competitive method may be made based upon that proposed offer that best meets the FAA's requirements as defined in the SFO or proposed contract lease document. If the acquisition is being conducted using the single-source method, the RECO can begin negotiations with the single offeror immediately upon receipt of an offer.

4.2.3.6.1 Negotiation Added 1/2008

Based on the results of market surveys or appraisals, the RECO must negotiate with property owners to obtain the necessary land/space interests at a fair and reasonable cost. The RECO

should remember that the value of the Government's enhancements to the property, or the intended use of the property by the Government, should not be considered in determining the procurement or lease cost of the real property. The offer(s) should be reviewed to determine which offer(s) best meets the requirements as indicated in the SFO and/or proposed lease contract. Any reasonable offer received up to the point of award may be accepted and considered at the discretion of the RECO. If the evaluations indicate that the offerors have different interpretations of the FAA's requirements, the RECO is encouraged to implement a process to clarify the ambiguities and allow offerors to revise their proposals in accordance with the clarifications provided.

The evaluation should include a full analysis of the total payment of rent and other costs to the FAA and the total cost of any alternatives considered. The reasonableness of specific costs should be evaluated against data from sources such as market surveys, appraisals, or Government estimates. The cost to the FAA should be based on the fair market value of the procurement, and not include any value created by the FAA's enhancements or intended use. This can be done by appraisal or use of market data. This is true for competitive or non-competitive space. The final selection should result in the best value to the FAA.

The RECO must use the Negotiator Report to document negotiations for all types of leases – space and land, cost and no cost. This document must be used for the entire process, i.e. before offers received, during evaluation and award recommendation and after award.

4.2.3.6.2 Communication Added 1/2008

All items may be communicated and discussed with offerors with the goal of clarifying the FAA's needs and providing a basis for the final contract to assure that all costs involved are fair and reasonable. Communications may continue up to the point of award and may be terminated at any time by the FAA.

During final communications, an offeror can be asked to lower the proposed price/rental to a stated rate.

At any time during the real property procurement process, if the parameters of a competitive offer have been determined, any offer falling within these parameters may be selected at the discretion of the RECO for direct communication.

Communications with all potential offerors should take place throughout the competitive process. Communications may start in the planning phase and continue through contract award. All SFOs and/or proposed lease contracts should clearly inform offerors how communications will be handled during the initial screening phase.

The purpose of communications is to ensure there are mutual understandings between the FAA and the offerors about all aspects of the procurement, including the offerors' submittals. Information disclosed as a result of oral or written communication with an offeror may be considered in the evaluation of an offeror's submittal.

To ensure that offerors fully understand the intent of the SFO and/or proposed lease contract, the

FAA may conduct one-on-one meetings with individual offerors. One-on-one communications may continue throughout the process, as required. Communications with one offeror do not necessitate communications with other offerors, since communications will be offeror-specific. Regardless of the varying level of communications with individual offerors, the RECO must ensure that such communications do not afford any offeror an unfair competitive advantage.

Communications may necessitate changes in the FAA's requirements. If, after release of a SFO and/or proposed lease contract, it is determined that there has been a change in the FAA's requirement(s), all offerors competing at that stage should be advised of the change(s) and afforded an opportunity to update their submittals accordingly. The RECO should be aware that depending on the scope of the change, the acquisition may have to start from square one again.

All determinations relating to changes in requirements, including waivers, will be documented in the negotiator report.

Where communications do not result in any changes in the FAA's requirements, the FAA is not required to request or accept offeror revisions. Technical leveling and auctioning techniques are prohibited.

4.2.3.7 Utilities Revised 4/2012

Like the acquisition of leasehold interests, the utility acquisition process must be conducted following the best commercial business practices in a fair and equitable manner, while complying with all applicable regulations. The utility guidance (4.1) addresses the acquisition, management and termination of utility services, i.e., electric, gas, water, refuse, and sewer in support of facilities constructed, operated, and maintained by the Federal Aviation Administration. The RECO/CO must follow the guidance. All new construction and major renovation projects at FAA facilities will include installation of advanced meters for electricity in accordance with the Energy Policy Act of 2005 (EPAct 2005), and gas and steam advanced meters in accordance with the Energy Independence and Security Act (EISA) 2007, Section 434(b). Advanced meters should also be considered to collect water use data for each water supply source (e.g., domestic potable water and non-potable water, including reclaimed water and rainwater). For existing FAA facilities where no major renovations are anticipated, advanced meters must be implemented where cost-effective and practicable. Cost-effectiveness must be determined on a 10-year simple payback, assuming annual savings of at least 2% or higher depending on the use of the metered data to implement energy savings and other cost savings measures.

4.2.3.8 Condemnation Revised 1/2008

Eminent domain proceedings, in accordance with established procedures, should be initiated when negotiations have reached an impasse and a satisfactory conclusion to the procurement cannot be reached. Generally, protracted negotiations are not in the best interests of either party. Legal participation is required on all condemnations. The Department of Justice rules on condemnation and requirements for title must be followed when real property is acquired through purchase or condemnation proceedings. (1.1.19 Condemnation Guidance)

4.2.3.9 Award Revised 4/2008

Competitive awards must be made to the offeror whose offer best met FAA's requirements/needs as defined in the SFO and/or proposed lease contract. The offer selected should provide the best value to the United States, cost and other factors considered. The RECO must document the objective criteria supporting the rational basis, i.e. the Negotiator Report and placed in the real estate lease contract file.

If award is made non-competitively, the reason(s) for a RECO's determination to make a single-source award must be documented in the negotiator report.

Any changes or additions, such as the addition of a requirement from the using service/requiring office, resulting from communications with the proposed awardees, or that are stated in the selected offer, should be made to the proposed contract prior to award. If such change is deemed outside the original requirements of the SFO and/or proposed lease contract, the RECO must start the procurement again. (Put that in above, too.)

Legal review of leases is required where there is deviation from the standard lease clauses. Legal review is required on all purchases of real property. The RECO is required to send three original copies of the proposed contract(s) to the property owner or provider for signature and returned for final execution by the FAA. The RECO should follow the guidance on recording leases and titles as mentioned in the land guidance 1.0.

After execution of the lease, the RECO must ensure that all information is entered into the real property database, i.e. REMS. RETS.

4.2.3.9.1 Terms of Leases Revised 4/2009

The RECO is authorized to enter into firm-term leases within established restrictions (2.4.4 Lease Terms). The RECO may award firm term leases not to exceed 20 years under the authority of 49 U.S.C. 40110(c)(1) without violating the Antideficiency Act. If a lease requires the payment of rent above a nominal amount—e.g., $1.00 per year--a new lease must be procured when the existing lease contract has been in effect for 20 years.

The RECO must complete the Lease Evaluation Form as early as possible in order to determine whether the lease will be a Capital Lease in accordance with OMB Circular A-11, Appendix B. If determined to be a capital lease (3.1.5 Capitalization Guidance), the RECO will notify the Logistics Service Area Manager and must ensure with the program office that FAA has the adequate funding for the requirement.

4.2.3.10 Alterations and Improvements Revised 10/2012

All alterations and/or improvements, including Tenant Improvements (TIs), are required by FAA to make the leased premises acceptable for FAA occupancy, and post occupancy alterations and improvements must be based upon technical requirements, business practices, or programmatic needs. TIs are the finishes and fixtures that typically take space from the "shell" condition to a

finished, usable condition.

Initial alterations, improvements, related items, and services associated with real property will be considered awarded through competition when included within the scope/requirements of the original procurement.

Alterations and improvements to an existing facility may be considered within the scope of a lease, if they are necessary to the operation of the facility as contemplated by the original procurement. In a leased facility, to minimize potential liabilities and restoration costs as well as other claims, the lessor should be considered the first choice for the provision of alterations. In making the determination of whether a lessor's proposed costs to make alterations and improvements to a leased facility are reasonable, the RECO should use a 1.) formal appraisal, 2.) construction data, 3.) cost to build publications, and/or 4.) an independent government cost estimate. If FAA makes the alterations, the lessor should be requested to waive any claims for restoration of the premises.

Any construction to leased or owned facilities must comply with the requirements of the Davis-Bacon Act. The Davis Bacon Act (40 U.S.C. 276a-278a-7) provides that contracts of $2,000 or more to which the U.S. or the District of Columbia are a party for construction, alteration, or repair (including painting and decorating) of public buildings or public works within the U.S. must include provisions that no laborer or mechanic employed directly upon the site of the work will receive less than the prevailing wage rates as determined by Department of Labor.

If the lessor is unwilling or unable to provide the means to complete the improvements, and the property is leased for no or nominal consideration, then the FAA may exercise its authority under 49 USC Section 44502(a)(5) to make the required improvements.

A discussion of issues applicable to TIs, including the TI allowance often offered in the commercial market to encourage long term leases, is set forth in Real Estate Guidance 2.3.3, Tenant Improvements for Space Acquisition.

4.2.3.11 Inspection and Acceptance Revised 1/2008

The RECO, or designated representative, should arrange to inspect the real property sufficiently in advance of the occupancy date to ensure it is acceptable and ready for use. Substantial, non-punch list deficiencies that would impact FAA use and/or occupancy of the real property in support of its mission must be corrected before acceptance of the real property, related service, or utility service.

4.2.3.12 Disposal of Real Property Revised 1/2008

There are two sources of authority under which the FAA may dispose of real property:

1. Pursuant to 49 USC 40110, the FAA has the authority to dispose of airport and airway property and technical equipment used for the special purposes of the FAA for adequate compensation.

2. The second source of authority is through the General Services Administration (GSA) and is governed by the Federal Property Administrative Services Act of 1949, as amended. This Act authorizes the Administrator of GSA to dispose of real property.

Also the RECO must include an explanation of how the acquisition or disposal action complies with FAA established policy and guidance in the negotiator report.

4.2.3.13 Documentation Revised 1/2008

Sufficient documentation must be developed that explains and justifies the procurement action taken. These documents should be retained in the applicable real estate acquisition file. The RECOs must use a 6 part folder system for all their acquisition files. The RECO must use the land, space and/or utility checklist when putting together the documentation for the lease file.

4.2.3.13.1 Accountability Added 1/2008

Real Estate Managers and/or their designees are to ensure that adequate records are maintained for all FAA owned, leased, and utilized real property. Managers and team leads are responsible for the accuracy and quality of the work of the RECO and should review the lease document files to ensure compliance with AMS. Further the real estate managers should ensure the real estate employees are trained in accordance with the real estate competencies and curriculum.

4.2.3.13.2 REMS Revised 1/2010

All real property assets must be recorded in Real Estate Management System (REMS) in accordance with the REMS User Guide (FAA only). Land and space ownership must be recorded in REMS after the title passes to the Federal Government. Land, structure and space leases must be recorded in REMS after the lease is fully executed. Other real estate assets (i.e. structures) purchased by procurement contracting officers must be recorded in REMS after completion of the Joint Acceptance and Inspection (JAI), as part of the regular close out process.

The program office with management responsibility that authorizes a change of location of a structure must notify the Real Estate Contracting Officer (RECO) with the changed location information. The RECO will make the change in REMS following notification by the program office. Logistics personnel must ensure accurate and complete real property asset data entry into REMS. All lines of business must assist logistics personnel in the annual inventory to validate required data elements in accordance with Federal Real Property Council (FRPC) and the DOT Asset Management Plan (AMP).

Lease Scanning in REMS:
As of July 1, 2007, all new and renewal lease documents must be scanned at the point of origin (i.e., region-level, etc.) once the lease has been activated. The lease must be uploaded to the REMS server, and attached to the respective lease number. The lease document will be available for viewing from REMS screens. See Real Estate Guidance 3.1.7.1 for scanning instructions.

4.2.3.14 Miscellaneous Provisions Revised 1/2008

4.2.3.14.1 Disclosure of Information Added 1/2008

Source selection information and proceedings must not be discussed outside the service organization. The Source Selection Officer (SSO) must determine the extent to which source selection information is disclosed and must execute a Certificate of Nondisclosure as appropriate.

4.2.3.14.2 Procurement Integrity Act Revised 10/2018

FAA is subject, with modifications as described in AMS Guidance with FAA-specific language, to the Procurement Integrity Act (41 U.S.C. §§ 2101-2107).

4.2.3.14.3 Organizational Conflicts of Interest Added 1/2008

The policy of the FAA is to avoid awarding contracts to contractors who have unacceptable organizational conflicts of interest.

The FAA will resolve organizational conflict of interest issues on a case-by-case basis; and when necessary to further the interests of the agency, will waive or mitigate the conflict at its discretion.

4.2.3.14.4 Conflict of Interest Added 1/2008

Any service organization or Office of Dispute Resolution (ODRA) member who is a Federal employee that has a real or apparent conflict of interest must withdraw from participation in the procurement process when required by law (18 U.S.C. 208) or regulation (5 CFR Part 2635). Non-Federal service organization or ODRA members are held to the same standards in order to sustain the integrity of the procurement process.

4.2.3.14.5 Electronic Commerce in Contracting Revised 1/2008

FAA may, to the extent practicable and cost effective, use electronic commerce procedures and processes, including acceptance of electronic signatures, to conduct and administer procurement actions. The Electronic Signatures in Global and National Commerce Act (E-SIGN) provides an equivalency between legally-required written records and the same information in electronic form.

4.2.3.14.6 Disaster or Emergency Preparedness and Response Added 8/2009

When a health-related emergency occurs and is declared by the United States Department of Health and Human Services Centers for Disease Control and Prevention (CDC) or other authorized Federal, state or local government official, the FAA Real Estate Contracting Officer (RECO) is authorized to acquire additional cleaning supplies or services in our leased facilities.

For further information, please see Section 2.4.14, Appendix O: Disaster or Emergency Janitorial Services.

4.2.3.15 Conveyance Added 1/2012

Conveyance by transfer agreement of FAA real property may be practical in situations where transfer of ownership is in the best interests of the government, such as to facilitate airport improvements or to satisfy contract obligations. Conveyance is a real estate transaction subject to the requirements of FAA Order 1050.19B, Environmental Due Diligence Audits in the Conduct of FAA Real Property Transactions. Buildings and structures being considered for conveyance must be also screened by the appropriate FAA environmental and safety professionals for any environmental or safety issues that may require mitigation prior to transfer.

4.2.4 Housing Policy Added 10/2011

The purpose of the FAA Housing program is to provide housing for FAA employees supporting the National Airspace System (NAS) who are working in remotely located areas where commercial housing is not available. The guidance follows the mandate in OMB Circular A-45 and must be followed for the acquisition, management and disposal of FAA owned or leased housing facilities. These provisions are applicable to all Lines of Businesses (LOB) and organizational elements having a requirement for and using FAA housing quarters.

4.2.5 Real Estate Certification and Warrant Requirements Revised 7/2013

FAA requirements specify using a competency-based model to provide structure and logic for learning development for acquisitions professions to make reasonable, justified decisions to accomplish agency goals. FAA's mission-critical real property transactions are highly complex and challenging and require a skilled and knowledgeable workforce. Consequently, the FAA developed an acquisition career development program for many series, including the Real Estate Contracting Officers/Specialists (RECO/S).

Therefore, unless otherwise prohibited by existing law or regulation, or an existing collective bargaining agreement, all RECO/S must meet the training and experience requirements set forth in AMS Policy Section 5, Acquisition Career Program, to qualify for certification. Warrant level qualifications and designations are related directly to RECO/S certification. For more information, please see Section 6.1, Real Estate Career Development. Attaining a given level of certification or warrant does not, in and of itself, qualify an employee for promotion or selection to a position.

4.3 Integrated Logistics Support

4.3.1 Principles Revised 4/2013

Integrated logistics support is the critical functional discipline that plans, establishes, and maintains an integrated logistics support system for the lifecycle all FAA products and services.

The objective is to provide the required level of service to the end user at optimal lifecycle cost to the FAA for new investment programs and the sustainment of fielded products and services.

Principles include:

Centralized management of integrated logistics policy and guidance with the Vice President of Technical Operations serving as the key executive and the Associate Administrator for Regions and Centers providing support

Logistics managers within each service team responsible for defining, documenting, obtaining, and managing integrated logistics support for service-team products and services over their lifecycle

Logistics managers document planning *for integrated logistics support in an integrated logistics support plan*

Collaborative logistics decision-making based on business case analysis results to achieve high performance and best value for the agency

Integration of operations and support requirements early in the program lifecycle using the program requirements document

Long-term strategic partnerships with suppliers and contractors to achieve full lifecycle support for operational assets

Managing and integrating supply support across the agency to improve efficiency, save money, and minimize ownership costs

Continuously measuring logistics performance against key organizational measures to drive corporate decisions and tactically manage logistics services

Training and certification of logistics specialists so the best logistics systems can be determined, implemented, and operated over the service life of operational assets

Developing and using logistics databases and tools to manage assets, track outages and service delays, control inventory, and identify opportunities for improving logistics support

4.3.2 Standard Elements of Integrated Logistics Support Revised 10/2007

The standard elements of integrated logistics support are:

- Maintenance planning;
- Maintenance support facility;
- Direct-work maintenance staffing;
- Supply support;
- Support equipment;
- Training, training support, and personnel skills;

- Technical data;
- Packaging, handling, storage, and transportation;
- Computer resources support.

A definition of each element is in Appendix C.

4.3.3 Logistics Management During the AMS Lifecycle Revised 10/2007

Logistics elements are addressed during each phase of the AMS lifecycle management process (service analysis, concept and requirements definition, investment analysis, solution implementation, and in-service management). This entails managing the interdependencies among logistics elements; integrating the acquisition and lifecycle management of logistics support with the investment product or service; and adhering to the principles of supply chain management throughout.

4.3.3.1 Service Analysis Added 10/2007

The service team logistics manager analyzes support data collected on operational assets to determine logistics trends and service needs. Results are fed into service analysis by each service organization that determines and prioritizes overall service and infrastructure needs. Service analysis results across service organizations are integrated into the enterprise architecture roadmaps, which specify when highest priority service needs enter into the appropriate solution-oriented lifecycle management phase (e.g., concept and requirement definition, investment analysis, or solution implementation).

4.3.3.2 Concept and Requirements Definition Revised 4/2013

The service team logistics manager works with the CRD team to define preliminary logistics requirements and a maintenance concept of operation for the preliminary program requirements document. Preliminary requirements are not solution-specific and do not limit the search for alternative solutions to mission need.

4.3.3.3 Investment Analysis Revised 4/2019

The service-team logistics manager is a core member of the investment analysis team throughout initial and final investment analysis. During initial investment analysis, the logistics manager evaluates the maintenance concept of each alternative solution and reports implications to lifecycle support costs and benefits in the business case analysis report. Trade-off among RMA parameters (as lifecycle cost-reduction measures) is encouraged so long as minimum service performance thresholds are not breached.
During final investment analysis, the logistics manager:

Develops logistics elements for any screening information request issued by the service team in support of final investment analysis;

- Evaluates the logistics and support elements of contractor responses;
- Assists the investment analysis team in defining:
    - ILS-specific baseline measures for the acquisition program baseline or execution plan;
    - Final logistics requirements in the program requirements document;
- Detailed logistics activities and milestones in the implementation strategy and planning attachment.
- Advises on preliminary disposal planning for the asset(s) under consideration for replacement;
- Identifies activities and establishes milestones for integrated logistics support elements of the In-Service Review (ISR) checklist; and
- Tracks completion of logistics support activities prerequisite to the final investment decision.

  During competitive procurements, offerors are evaluated on the suitability of their maintenance and support plans and demonstrated ability to support other fielded systems, as well as compliance with contract technical specifications.

4.3.3.4 Solution Implementation Revised 10/2007

During solution implementation, the logistics manager verifies that contractor logistics product development and field installation are consistent with contract requirements and user needs through commissioning. The logistics manager also assists the service team in verifying that logistics-related activities in the ISR checklist are complete and the product or service is operationally suitable at the in-service decision.

4.3.3.5 In-Service Management Revised 10/2007

The logistics manager assists the service organization and its systems engineering efforts throughout in-service management in the collection and assessment of operational data for use in evaluating product or service effectiveness. These activities include:

- Tracking and evaluating RMA performance and supportability issues of fielded assets;
- Analyzing supportability issues caused by market-driven product, system, or subsystem obsolescence;
- Determining the most cost-effective means for avoiding supportability shortfalls;
- Assessing the logistics impact of obsolescence-driven product changes;
- Evaluating the impact of engineering changes, performance shortfalls, or technological opportunities on the integrated logistics support of operational products and services.

The logistics manager also participates in disposal activities of products scheduled for removal from service.

4.3.4 Who Does It? Revised 10/2007

Each line of business manages integrated logistics support for the products and services for which it is responsible. The ATO Technical Operations organization is the office with primary responsibility for logistics policy and guidance. The ARC organization provides in-house integrated supply chain management, depot support, and logistics services. The logistics manager is the focal point for logistics planning, implementation, and in-service management within the service team. The ARC logistic-element management team supports service-team logistics managers in logistics planning and management.

4.4 Test and Evaluation Revised 7/2016

Test and evaluation is planned and conducted in accordance with the guidelines, standards, and practices found on the FAA Acquisition System Toolset (FAST) to:

- Provide essential information in support of decision-making for investment programs;
- Provide essential information for assessing technical and investment risks;
- Verify the attainment of technical performance specifications and objectives; and
- Verify and validate that systems, solutions, and capabilities are operationally effective and suitable for the intended use.

The types of test and evaluation standards and processes to be followed for each investment program are based on the milestones and decision points they support and the type of investment program. These test and evaluation standards and processes address: NAS new investment, NAS modifications, and Mission Support programs.

The high-level test strategy is defined in the implementation strategy and planning document. The program management plan specifies how the test strategy will be executed. Based on complexity and criticality, new investments may be required to deliver a test and evaluation master plan (TEMP), as indicated on the ACAT designation form. For designated investment initiatives, the TEMP provides more detail than the ISPD and the PMP on contractor and FAA test needs, scope, planning and reporting.

The test and evaluation approach, level of analysis, and test criteria are determined by reporting requirements for program milestones and decisions. The requirements that need to be verified and validated form the basis for test criteria. The risks and complexity of the system, solution, or capabilities being tested drive the scope and robustness of evaluation methods, test cases, and reporting structure.

4.4.1 Service Analysis, Concept and Requirements Definition, and Investment Analysis Revised 4/2019

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

For investment programs designated to have a test and evaluation master plan a preliminary TEMP (pTEMP is developed during initial investment analysis based on the concepts and functions documented in the preliminary program requirements document to support the initial investment decision. An initial TEMP (iTEMP) is developed during final investment analysis once program requirements are finalized and the identity of the most promising solution is known. The iTEMP describes the test program and establishes the basis for test requirements in the request for offer to industry and test costs/and schedules in the acquisition program baseline or execution plan. The iTEMP is required to support the final investment decision. The ISPD and PMP define the plan and schedule for delivery of the final TEMP (fTEMP).

4.4.2 Solution Implementation Revised 7/2016

Solution implementation activities follow documented and structured T&E processes appropriate to the systems, solutions, and capabilities being tested. Early test and evaluation activity assesses potential operational, safety, and security risks and identifies opportunities for risk mitigation. Later test and evaluation examines performance and operational readiness (suitability and effectiveness) in support of decision-makers at the production, deployment, and in-service decisions.

Each test and evaluation program consists of developmental, operational and site testing as specified in the fTEMP (if required) and associated PMP and ISPD, as well as independent operational assessment for designated programs (see AMS Section 4.5). Developmental testing verifies requirements, functional design, and integration of the system, solution, or capability. Operational testing validates achievement of operational needs, as well as the effectiveness and suitability of the solution. For deployable products site testing verifies and validates requirements, design, and suitability of the solution in the fielded environment and configuration. As part of site testing, field familiarization testing may be required to support the site operational readiness decision.

4.4.3 In-Service Management Revised 7/2016

Developmental, operational and site testing are performed in accordance with documented, structured test processes defined by each in-service management organization in accordance with FAA Orders and Acquisition Management System Policy guidance. This applies to development and implementation of all NAS and Mission Support modifications during the in-service management lifecycle phase. In-service management test processes include standard test approaches that define the phases and detailed activities to be included during testing. These processes also support/and ensure that safety risk management and information system security requirements are addressed.

4.5 Independent Operational Assessment Revised 4/2018

The FAA is committed to verifying that new solutions are operationally effective, suitable, and safe before deployment. The Chief Operating Officer, through the Vice President for Safety and Technical Training, designates solutions on which to conduct independent operational assessment. The decision to designate a solution for independent operational assessment is based on such

factors as complexity, operational criticality, lifecycle cost, interoperability, and safety risk.

During the early stage of solution implementation, the Independent Safety Assessment Team identifies potential operational and safety risks and communicates them to the acquisition organization. Once acquisition test activities are complete and the solution is operational at the key site(s), the Vice President of the acquisition organization will declare in writing to the Vice President of Office of Safety and Technical Training, via the Independent Operational Assessment Readiness Declaration, the readiness of the solution to enter independent operational assessment. Independent operational assessment provides an independent determination of operational readiness in support of deployment decisions (such as an in-service decision).

4.6 Deployment Planning Revised 4/2009

Deployment planning prepares for and assesses the readiness of a solution to be implemented into the National Airspace System. Deployment planning is part of a continuous in-service review process that begins early in the lifecycle management process, usually during the development of requirements. All programs undergo some degree of deployment planning to ensure key aspects of fielding a new capability are planned and implemented, as well as to ensure the deployment does not create a critical deficiency in the National Airspace System. The level of authority for deployment readiness assessment and in-service decision (ISD) may vary from the service organization leader to the Joint Resources Council, chaired by the head of the sponsoring line of business.

The conduct of deployment planning involves coordination among and participation by many critical functional disciplines. Trade-offs among cost, schedule, performance, and benefits relative to these functional disciplines must also include the impact of deployment and implementation considerations. Deployment planning tools (such as a tailored in-service review checklist) must be used to assist in identifying, documenting, and resolving deployment and implementation issues. Methods and techniques include, but are not limited to, a tailored application of generic tools, the integration of checklist issues with other emerging issues (such as program trouble reports from test and evaluation), development of action plans for resolution of checklist and other items, and documentation of the results of issue resolution and mitigation. Consistent deployment planning must be visible in contractor "statement of work" and associated efforts. The status of deployment planning (and issue resolution) activities are briefed periodically (e.g. at service-level reviews), presented at the ISD meeting, summarized in the ISD memorandum, and audited during the post implementation review. The implementing service organization is responsible for the successful completion of deployment planning activities. The operating service organization provides guidance and technical expertise related to ISR issues or other factors that may affect the ability to deploy and support the intended service, product, or requirement. All lines of business will resolve and close their respective ISR issues.

4.7 Human Factors

Human factors are a *critical* aspect of aviation safety and effectiveness. Service organizations must assure that planning, analysis, development, implementation, and in-service activities for equipment, software, facilities, and services include human factors engineering to ensure

performance requirements and objectives are consistent with human capabilities and limitations. Human factors engineering should be integrated with the systems engineering and development effort throughout the lifecycle management process, starting with concept and requirements definition and continuing through solution implementation and in-service management (Human Factors Guidelines).

4.8 Environmental, Occupational Safety and Health, and Energy Considerations

Revised 4/2019

FAA investment programs must comply with relevant federal, state, and local regulations, and FAA orders, specifications, and standards pertaining to environmental and occupational safety and health (EOSH) requirements, and energy and water requirements. FAA lines of business and staff offices must comply with all applicable requirements of the National Environmental Policy Act (NEPA) in accordance with the current version of FAA Order 1050.1, *Environmental Impacts: Policies and Procedures.* Service organizations responsible for implementing investment programs must consider EOSH and energy and water requirements, and address them throughout the lifecycle management process in order to:

- Ensure the installation and operation of systems, equipment, facilities, and related program activities will not adversely impact personnel safety and health or the environment; and
- Ensure the acquisition program baseline or execution plan of the investment initiative reflects the schedule and cost of EOSH requirements.

Questions on the applicability of state and local EOSH requirements to federal acquisitions should be referred to the Office of the Chief Counsel for an evaluation of the supremacy clause and sovereign immunity implications.

4.9 Information Technology

Information technology represents a significant financial investment for the FAA, as well as a set of essential tools and services that support multiple FAA missions, functions, and activities. To develop, deploy, and manage information technology effectively, service organizations must apply sound information and engineering principles to the lifecycle planning and acquisition of information technology. Service organizations must also continuously involve users in the development, operation, and maintenance of information and application systems. Service area plans should leverage corporate information technology capabilities such as FAA telecommunications, emphasize the use of open systems and shared data, implement recognized information technology standards, and take advantage of economies of scale.

4.10 System Engineering

Systems engineering management is conducted and documented throughout the lifecycle management process at all levels of management and integration, from individual investment programs to the National Airspace System as a whole. At the NAS-level, systems engineering

management integrates across investment programs to achieve an efficient and fully interoperable National Airspace System. At the program level, it optimizes performance, benefits, operations, and lifecycle cost.

All organizations responsible for the development, implementation, and lifecycle management of FAA investment programs must develop and institute a systems engineering management program consistent with guidance in FAST [system engineering guidance]. This includes organizations responsible for integrating investment programs into larger "system of systems" such as the National Airspace System. The systems engineering management program of each organization must apply systems engineering activities such as functional analysis, requirements management, synthesis, and validation and verification throughout the lifecycle management process, consistent with the specific functions and responsibilities of the organization.

4.11 Security Revised 1/2019

Introduction

Service organizations and program offices must allow sufficient time and resources to address security laws, policies, and orders including the cost of implementing required security controls into acquired components. Security policy within the FAA is divided into information security; physical security, facility security, and personnel security; and sensitive information and personally identifiable information. There is overlap between the disciplines (for example, physical security is employed to protect classified materials), so all areas of security policy must be evaluated to ensure full compliance with the various orders and policies.

Information Security and Privacy Policy

The Federal Information Security Modernization Act, 2014 (FISMA), Office of Management and Budget Circular A-130, Management of Federal Information Resources, National Institute of Standards and Technology (NIST) guidance, and other federal, departmental, and agency-level guidance and standards as amended, describe information security & privacy (IS & P) needed for all FAA information systems. FAA information systems reside in one of three domains: national airspace system (NAS), mission support/administrative, and research and development. They may consist of government-owned/managed components, contractor-owned/managed components, or combinations of these types. They are segregated into infrastructure for air traffic operations and infrastructures for information technology administrative support. The infrastructures exchange information via authorized security gateways.

FAA IS & P requirements are derived from NIST special publications and federal information processing standards. The FAA Office of Information Security and Privacy (AIS) defines and maintains the agency enterprise information security and privacy policy. Because the NAS is classified as critical infrastructure, NAS systems must comply with additional ISS requirements as defined by Air Traffic Organization Policies. These ATO policies can be found on the FAA's Website under policy and guidance and are designated with the letters "JO".

To receive a successful in-service decision, all FAA investment programs must undergo a security authorization that assesses outputs and products against mandatory security requirements. The

security authorization process is defined in FAA Order 1370.121 FAA Information Security and Privacy Program & Policy. The Security Authorization Handbook details the process for compliance with ISS requirements during solution implementation and in-service management. Investment programs must consult the Information Security Guidance for System Acquisitions (ISGSA) at each planning phase of the AMS lifecycle to ensure information security requirements and related information are included in acquisition artifacts, and to ensure the investment program is on track for a successful security authorization.

Physical, Facility and Personnel Security Policy

The FAA must conform with national policy related to physical security of the aviation infrastructure including leased and owned facilities, the security of all information associated with operation of the FAA and aircraft operations, and personnel security. The FAA is also obligated to protect proprietary information to which it has access. Physical security is directly applicable to aviation industry operations and activities, and to supporting infrastructure such as communications, sensors, and information processing. FAA Order 1600.69C, Facility Security Management Program, establishes both policy and guidance for physical security.

FAA Order 1600.1, Personnel Security Program, establishes both policy and guidance for FAA personnel security. In addition, detailed guidance to implement personnel security with respect to contractors is in FAA Order 1600.72, Contractor and Industrial Security Program.

Classified National Security Information (CNSI) and Sensitive Unclassified Information (SUI) Policy

In order to meet the spirit of Executive Order 13526 and 32 CFR Part 2001 to protect classified national security information from unauthorized disclosure, systems containing or processing classified data are managed by the FAA Office of Security and Hazardous Materials Safety in accordance with FAA Order 1600.2F, Safeguarding Classified National Security Information. FAA Order 1600.75 Protecting Sensitive Unclassified Information (SUI) is in effect at https://employees.faa.gov/tools_resources/orders_notices/index.cfm (FAA only).

The Privacy Act of 1974 and the E-Government Act of 2002 (Public Law 107-347) mandate protection of an individual's right to privacy and the prevention of unauthorized dissemination of personal information. FAA Order 1370.121 Appendices 19-26 establishes the policy and guidance for handling Personally Identifiable Information (PII). The FAA Privacy Office will handle all privacy issues.

4.12 National Airspace System Safety Management System Revised 1/2012

When new capital investments are determined to have an effect on the safety of the National Airspace System, safety management must be conducted and documented throughout the lifecycle of a product or service in accordance with the FAA Safety Management System (SMS). The safety management system requires use of safety risk management to identify safety risks to the National Airspace System and to conduct product development at a rigor commensurate with the severity of the resultant hazard should that product experience failure. For software-intense systems, the establishment of a development assurance program in accordance with RTCA

Document (DO) 278A, Software Integrity Assurance Considerations for Communication, Navigation, Surveillance and Air Traffic Management Systems, RTCA, Inc., is one acceptable means to demonstrate that a software product was developed at the appropriate level or rigor.

Critical safety issues identified during service analysis are further addressed in: (1) an operational safety assessment; (2) a system safety assessment of alternative solutions to mission need reported in the business case; and (3) when service organizations provide program-specific safety risk management planning in the implementation strategy and planning document.

Each service organization involved in acquisition management must institute a system safety program that includes at a minimum: hazard identification, hazard classification (severity of consequences and likelihood of occurrence), measures to mitigate hazards or reduce risk to an acceptable level, verification that mitigation measures are incorporated into product design and implementation, and assessment of residual risk. Status of system safety must be presented at all decision points and investment reviews. Detailed guidelines for safety management are found in FAST, FAA SMS manual, SRMGSA, and RTCA DO-278A.

4.13 Risk Management Revised 4/2019

Risk management is applied throughout the lifecycle management process to identify and mitigate risks associated with achieving FAA goals and objectives. Each line of business must institute risk management processes that: (1) identify and assess risk areas; (2) develop and execute risk mitigation or elimination strategies; (3) track and evaluate mitigation efforts; and (4) continue mitigation activity until risk is eliminated or its consequences reduced to acceptable levels.

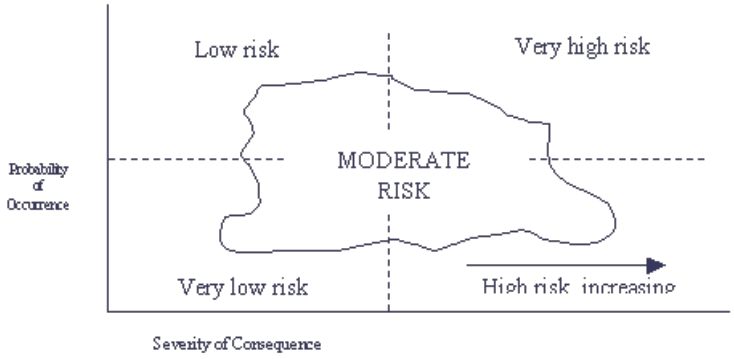


Figure 4.13-1 Risk Characterization

Risk management applies to all levels of FAA activity, from small projects to large programs. It applies to such risk areas as cost, schedule, technical, system safety, all security disciplines, human factors, operability, producibility, supportability, benefits, management, funding, and stakeholder satisfaction (e.g., Congressional and aviation community priorities; union concerns). The following examples illustrate key elements of risk management:

- **Service-level risk management.** Risk management during service analysis identifies and characterizes risks to the FAA's ability to execute its legislated responsibilities and satisfy customer demands for service. Typically, these risks arise from changes in the operational

environment and shortfalls in operational capability.

- **Investment analysis risk management.** Risk management during investment analysis must ensure primary risks associated with alternative solutions to mission need are identified and evaluated fully. Sufficient time and money must be included in the acquisition program baseline or execution plan of a solution selected for implementation to mitigate risk and achieve program success.
- **Program risk management.** Service organizations must apply risk management throughout the lifecycle of their products and services. The focus is on early detection and reduction of risk to avoid the greatly increased cost of dealing with the consequences of risk later in the lifecycle. Risk management planning and risk-mitigation actions are documented in the OMB Major IT Business Case and the implementation strategy and planning document. Appropriate risk management requirements and activities are also included in any prime contract for products or services. Risk management continues throughout in- service management, with the assessment and adjustment of mitigation efforts to reduce the consequences of risk to an acceptable level.
- **Security Risk Management.** Vulnerabilities and risks within FAA programs must be reduced to acceptable levels for all identified threats that could result in quantifiable injury to personnel, loss or destruction of critical assets, or disruption of FAA information systems, including mission-critical NAS operational systems and mission support and administrative systems. Offices sponsoring or executing programs must implement and maintain lifecycle security risk management for each investment program. Lifecycle security risk management must be an integral part of program concept, planning, engineering design, and implementation, and must be maintained and modified throughout the lifecycle, as required. The methodology for quantifying and measuring asset criticality, along with identifying levels of vulnerability and risk must meet or exceed the lifecycle risk management process guidance in FAST.
- **Human factors risk management.** Human factors risk management must ensure effective human / system interaction and performance. Human issues such as usability, operational suitability, personnel and training costs, and user performance must be evaluated during concept and requirements definition and investment analysis as FAA needs are defined and alternative solutions are evaluated. During solution implementation, human factors must be fully integrated into planning and execution of the overall program to foster safe, effective human / product performance and ensure user acceptance of the final product.

4.14 Data Standardization and Management Revised 7/2008

The FAA applies data standards to facilitate data sharing across systems, programs, government agencies, and industry. Data standardization improves the transportability of data, facilitates cost-effective development and re-engineering, and improves the quality, utility, and integrity of FAA information products and resources. The FAA data management program consists of data registration, data standardization, data certification, and lifecycle data management. Policy is in FAA Order 1375.1, FAA Information and Data Management. Guidelines and tools are in FAST.

4.15 Post Implementation Review and Operational Analysis Revised 11/2009

4.15.1 Post-Implementation Review Revised 1/2020

The post-implementation review determines the following:

- Are actual costs, schedule, performance, and benefits achieving baseline expectations and if not, why not?
- Is the asset enabling the agency to provide the intended service or are changes required?
- Are there any systemic issues that need to be fixed
- Are there any process or implementation issues that need to be strengthened or improved?

The scope and content of each post-implementation review is defined in the PIR strategy submitted prior to the Final Investment Decision. The PIR may include the examination of requirements, customer feedback, and outcomes including cost, schedule, performance, strategic initiatives, and benefits. PIRs may be conducted on related investment programs intended to achieve composite service outcomes, as directed by the Joint Resources Council or Director of the performing organization.

Prior to PIR conduct, investment programs participate in an assessment to determine the progress made in implementing the PIR strategy. This assessment is the Post-Implementation Review Data Readiness Assessment. The assessment is conducted in two parts; a self-assessment is conducted by the investment program and an independent assessment is conducted by the PIR Quality Officer or designee. The PIR Quality Officer or designee develops findings and recommendations for the assessment and works with the investment program to develop a corrective action plan to satisfy data requirements for PIR conduct.

The PIR is typically conducted 6 to 24 months after an asset first goes into operational service or as determined by the Joint Resources Council for related investment programs. The Director of the performing organization funds the review, determines the measures that comprise the review, staffs the review team, plans the review, and executes PIR processes. The Director of the performing organization develops a plan of action and milestones to address findings of the review and coordinates with the Director of the sponsoring organization, as applicable.

The PIR Quality Officer ensures the review is planned and conducted in an unbiased manner and consistent with agency standards. The PIR Quality Officer participates in PIR processes and maintains agency records of PIR strategies, data readiness assessments, plans, reports, and plans of action and milestones. Go to Post-Implementation Review Data Readiness Assessment Guidance to find out how to ensure that the PIR's data requirements will be satisfied in preparation for PIR conduct. Go to Post-Implementation Review Guidance to find out how to conduct a PIR and report results.

4.15.2 Operational Analysis Revised 11/2009

Operational analysis is the process by which FAA evaluates the ability of in-service assets to continue to provide the service for which they were procured. It answers the following questions:

- Are actual operating costs comparable to estimates in the business case analysis report?
- Is the asset operating with a sustainable design?

- Can the asset continue to meet the business needs and performance goals of the agency?
- Is the asset continuing to meet stakeholder needs?

Operational analysis consists of gathering and analyzing reliability, maintainability, and availability data (using the National Airspace System Performance Analysis System); managing supportability information to determine whether an operational asset can continue to provide the expected service for its intended life, monitoring cost data to ensure actual costs are in line with planned costs; and managing asset viability against stakeholder needs. Results are fed into the FAA's planning and investment analysis processes by the Directorate, when warranted, as a basis for determining whether an asset may need to be modernized, replaced, or removed from service. Operational analysis begins when an asset first goes operational and continues until it is removed from service. Operational analysis data is also used in the evaluation of asset readiness status. Operational analysis is the responsibility of the Directorate of the performing/service organization. Go to Operational Analysis Guidance to find out how to conduct operational analysis and report results.

4.16 Earned Value Management Revised 7/2016

Organizations responsible for FAA capital investment programs that involve development must comply with federal regulations as required by OMB Circular A-11 and other relevant OMB Memoranda regarding earned value management (EVM) as it applies to both government and contractor development efforts regardless of contract type. The FAA uses EVM to manage development activities by providing timely, accurate, and integrated cost, schedule, and technical performance information.

EVM requirements are documented in the EVM Determination for each program by the EVM Focal Point prior to a Joint Resources Council (JRC) Investment Analysis Readiness Decision (IARD), Initial Investment Decision (IID), Final Investment Decision (FID) or Baseline Change Decision (BCD). However, the JRC may designate any program for the implementation of EVM at the program level or to any type of development contract based on an assessment of cost, schedule, and technical risk of each effort.

4.16.1 Program EVM Requirements Revised 7/2016

All FAA programs identified as major programs for reporting to OMB must establish a program management and control system using the principles of an EVMS in Electronic Industries Alliance (EIA)-748. EVM data is extracted from the management and control system and reported to DOT for submission to OMB on a monthly basis. The program EVM system must be consistent with the program management and control strategy in the JRC approved implementation strategy and planning document. The program must create the necessary program management information, including the Program level Performance Measurement Baseline (PMB) and supporting documentation for its program integrated baseline review (IBR). The program will facilitate the conduct of the IBR which will be overseen by an FAA team of subject matter experts formed and led by the EVM Focal Point as part of the oversight role.

The EVM Focal Point conducts program level surveillance on all major programs.

4.16.2 Contractor EVM Requirements Revised 7/2016

Implementation of EVM on development contract efforts is based on an assessment of cost, schedule, and technical performance risk of each contract. Implementation must be consistent with the program and contract management strategy in the implementation strategy and planning document.

Contractors are required to apply earned value management to development contracts over $50 million and use a certified/validated EVM system (EVMS) for reporting. For development contracts between $20 and $50 million, the contractor management control system must comply with the EIA-748 guidelines as tailored by the program manager, contracting officer, and EVM Focal Point but a certification/validation of the contractor EVM system is not required.

The JRC may designate the application of earned value management to any development contract based on an assessment of cost, schedule, and technical risk of each contract. The contractor must provide an Integrated Program Management Report (IPMR) and participate in government led integrated baseline reviews.

The EVM Focal Point conducts contractor EVMS surveillance.

4.16.3 Contractor Management Control System Certification Revised 2/2015

The contracting officer assisted by the EVM Focal Point validates the contractor management control system as meeting contract management control requirements. The EVM Focal Point assesses contractor implementation of its management control system and monitors application to ensure compliance. Contractors not in compliance with the EVM requirements of a contract are subject to payment withholding in accordance with AMS clause 1.13-7 “Earned Value Management System – Withholding of Payment”. The EVM Focal Point determines whether a contractor requires an EVM system certification review or whether an existing certification is acceptable. The EVM Focal Point establishes agreements with other government agencies to recognize contractor EVM certifications and surveillance reports.

5 Acquisition Career Program Revised 10/2013

The acquisition of mission-critical technologies is a complex, resource-intensive undertaking. It requires a highly skilled, well-trained, and flexible workforce that can keep pace with technological innovation, rapidly changing customer and supplier environments, and the stringent safety and reliability the air traffic control community demands.

5.1 Acquisition Workforce

FAA’s acquisition workforce is comprised of the following core disciplines:

Program/Project Management – This discipline encompasses all activities involved with establishing, tracking, managing, and reporting all aspects of program/project planning and execution, including budgeting, technical requirements, personnel, and customer needs. It includes the following program/project management phases: initiating, planning, executing, monitoring, controlling, and closing.

Contracting – This discipline encompasses all activities involved with establishing and maintaining contractual functions performed by the Contracting Officer/Specialist (1102) and Real Estate Contracting Officer/Specialist.

Contracting Officers/Specialist (1102 series) - This includes understanding technical requirements; assisting development of acquisition strategies; developing a procurement strategy plan; reviewing statements of work; evaluating cost estimates; determining contractor responsibility; performing contract administration by determining contractor compliance; negotiating cost, price, or technical changes; monitoring contractor performance; and approving contractor payments. The contracting officer has the specific authority to bind the Government by executing awards, exercising options, or terminating contracts.

Real Estate Contracting Officers/Specialist (RECO/S) - This discipline includes all activities involved in acquiring, managing, and disposing of real property interests and public utility services. This includes the understanding of the following functions: (1) acquisition of real property and utility services; (2) management of real property in (a) the administration of land (Federally-owned, Indian-owned, and leased), or space (technical/administrative building space or structure), or (b) management of associated utility service contracts; or (3) disposal of real property interests/assets (improvements) or termination of utility contracts. The scope of work requires in-depth knowledge of real estate laws, principles, practices, and markets. The Real Estate Contracting Officer has the specific authority to bind the Government by executing awards, exercising options, or terminating contracts.

Logistics – This discipline encompasses all activities involved with planning, establishing, and maintaining an integrated logistics support system for the lifecycle of FAA products and services. Logisticians plan and manage the interdependencies among nine logistics elements: maintenance planning; supply support; training, training support, and personnel skills; computer resources support; maintenance support facilities; packaging, handling, storage, and transportation; technical data; direct work maintenance staffing; and support equipment.

Engineering and Research, including Systems Engineering – This discipline encompasses all activities involved with applying scientific knowledge and using natural laws and physical resources to design and implement materials, structures, machines, devices, systems, and processes that achieve a desired objective and meet specified criteria.

Business and Financial Management – This discipline encompasses all activities involved with developing, coordinating, and integrating performance-based budgets; developing and tracking program measures; managing, tracking, and reporting financial transactions; developing cost projections; recommending ways to mitigate financial risks; and providing financial and investment analysis, including return on investment.

Testing and Evaluation – This discipline encompasses all activities involved with government

test, analysis, and evaluation as part of the verification and validation process of newly developed or modified products, sub-components, and/or services to meet specification, satisfy program requirements, and confirm products are operationally suitable and effective. This includes all government test and evaluation activities during product development to determine whether engineering design and development activities are complete; whether the product will meet specifications, contractual requirements, security certification, and authorization criteria; and to verify the product or service performs to government standards for acceptance.

In addition, there are additional unique acquisition specialty functions that require specific training and development:

Contracting Officer's Representative – This specialty function resolves technical issues, gives technical direction to the contractor, and interprets technical processes and procedures for the contracting officer. Other functions include interpreting technical requirements; assisting with the acquisition strategy; assisting in the development of the statement of work; generating government cost estimates; assisting in the negotiation of costs or price of technical requirements; monitoring contractor performance; reviewing and accepting services, supplies, and equipment; reconciling invoices and recommending payments.

Delegation of Procurement Authority – This specialty function purchases supplies, services, and equipment through either simplified acquisition procedures or placement of orders against pre-established contractual instruments or contracts below the simplified acquisition threshold. The primary objective is rapid delivery of goods and services in direct support of operational requirements. Delegation of procurement authorities are typically granted to integrated logistics support personnel.

Quality Assurance - Quality Reliability Officers and Specialists monitor and evaluate the operation and effectiveness of the contractor's quality assurance system as it relates to the development and production of FAA equipment. In addition to monitoring and reporting on production, inspection and test activity in-plant, QRO/S professionals accept FAA equipment both in-plant or at FAA sites as dictated by the terms of the contract.

5.2 Certification Requirements

Certification standards for the following acquisition disciplines and specialty functions are currently in place: Program/Project Management, Contracting Officer/Specialist, Real Eastate Contracting Officer/Specialist, Contracting Officer Representative, Delegation of Procurement Authority, Systems Engineering, Test and Evaluation and Integrated Logistics Support. Additional certification standards for all other acquisition disciplines will be addressed in the future.

Acquisition workforce members who fall within one of the above listed disciplines and/or specialty functions must apply for, acquire, and maintain certification at the appropriate level for the work they perform. These certification requirements are aligned with federal acquisition certification programs.

Attaining a given level of certification does not automatically qualify an employee for promotion

or selection to a position. Employees must be performing in a specific acquisition discipline to apply for certification. Applications must be submitted using the standard application form for the discipline.

5.3 Certification Renewal

Certification for all disciplines expires every two years and must be renewed if the employee continues to work as part of the acquisition workforce. Acquisition workforce members must earn continuous learning points to maintain certification. Continuous learning points can be earned through training, seminars, conferences, special projects, education, and other developmental activities related to the discipline. Refer to each discipline for the specific number of continuous learning points, associated timeframes and process required for certification renewal.

5.4 Waivers

Each discipline or specialty function has specific requirements for when certification must be attained. On a limited case-by-case basis, waivers for additional time to complete certification requirements may be granted. Waivers must be coordinated with the Acquisition Career Manager.

5.5 Responsibilities

The FAA Acquisition Executive develops and maintains an acquisition career management program to develop and maintain a competent workforce able to accomplish the FAA mission. The Acquisition Executive is the approving official for all FAA acquisition certifications under this policy.

The acquisition career manager monitors and reports compliance with the acquisition career program and ensures the acquisition workforce meets its requirements. The acquisition career manager is appointed by the Acquisition Executive.

Supervisors of acquisition professionals ensure their employees have the acquisition competencies and meet all certification requirements to perform at the level required by their position.

Acquisition professionals must comply with the requirements established in the acquisition career program for their specific discipline.

5.6 Other Requirements

Some acquisition workforce positions have additional training requirements geared to the specific duties and responsibilities of the position. Assignment-specific training requirements are designated by each organization or line of business, and are not associated with mandatory training requirements for certification.

5.7 Funding

Funding for acquisition workforce members to attain certification is centralized. Some certification maintenance activities may be funded centrally; however, each line of business or staff office must plan and fund certification maintenance activities for its employees.

Appendix A: Roles and Responsibilities Revised 4/2019

Councils and Boards

JOINT RESOURCES COUNCIL

- Approves the FAA investment portfolio each year as part of the budget submission process;
- Reviews and approves the FAA enterprise architecture each year;
- Concurs jointly with the NextGen Management Board on the establishment of new operational capabilities;
- Reviews updates to the NAS ConOps and works with the NextGen Management Board to resolve any issues or concerns;
- Makes investment decisions and oversees execution of investment programs;
- Establishes investment programs and assigns execution to a service organization;
- Baselines program requirements for investment programs in the final program requirements document;
- Approves and baselines all required AMS program documents (i.e., program requirements document, acquisition program baseline or execution plan, business case, and implementation strategy and planning document);
- Commits the FAA to full funding of approved investment programs or program segments;
- Identifies any future corporate decisions and levels of empowerment for the service organization during solution implementation for investment programs;
- Makes acquisition program baseline or execution plan change decisions that alter program performance, cost, and schedule baselines during solution implementation for investment programs;
- Reviews and approves FAA RE&D and F&E budget submissions each year prior to review and approval by the Administrator and submission to the Office of the Secretary of Transportation and reviews the OPS appropriation. The Administrator approves the OPS budget before submission to the Office of the Secretary of Transportation;
- Makes investment program production and in-service decisions or assigns approval authority to senior management; and
- Conducts acquisition quarterly program reviews to manage ongoing investment programs, including operational assets; and
- Designates investment programs for TechStat reviews.

The Joint Resources Council has the following core members:

- Acquisition Executive;
- Chief Operating Officer;
- Chief Information Officer;
- Chief Financial Officer;
- General Counsel;
- Associate Administrator for Aviation Safety;
- Associate Administrator for Airports;
- Assistant Administrator for NextGen;
- Assistant Administrator for Policy, International Affairs, and Environment; and
- Director, Joint Planning and Development Office.

The following members attend Joint Resource Council meetings when the decision concerns their organizational responsibilities:

- Associate Administrator for Commercial Space Transportation.

ACQUISITION EXECUTIVE BOARD

- Assists and supports the Acquisition Executive and Joint Resources Council by reviewing, authorizing, and overseeing development and implementation of acquisition management policy, process, practices, procedures, and tools at all organizational levels;
- For authorized change proposals, charters and provides resources for cross-functional work groups to conduct feasibility and cost/benefit analyses for proposed policy, guidance, practice, and procedure changes;
- Directs, controls, and approves all compliance processes associated with execution of any aspect of AMS; and
- Directs and oversees the Acquisition System Advisory Group.

NEXTGEN MANAGEMENT BOARD

- Approves updates to NAS Concepts of Operations;
- Approves NAS Segment Implementation Plan;
- Approves NAS operational capabilities including goals, objectives, and performance targets;
- Approves alignment of NAS investments to operational capabilities;
- Approves capture teams for operational capabilities;
- Conducts portfolio review for operational capabilities; and
- Approves Operational Capability Integration Plans.

OPERATIONS GOVERNANCE BOARD (OGB)

- Reviews and approves Mission Support Operations-funded capital investments;
- May recommend that Contracting Officers not enter into contracts related to applicable investments;

- May request JRC concurrence or recommend JRC review for individual investments;
- Oversees a risk review of proposed investments in coordination with AIT and other functional experts; and
- Provides status to the JRC and other agency executive level boards and organizations on the results of the Mission Support, Operations-funded capital investments brought before the Operations Governance Board.

The members of the Operations Governance Board will be:

- Director of Acquisition & Contracting (Chair) AAQ-1
- Director of Investment Planning & Analysis (IP&A) AFI-1
- Director of Enterprise Program Management Services (EPMS) AEM-1
- Director of Program Control and Integration AJM-1
- Aviation Safety AIR-2
- Assistant Chief Counsel AGC-500
- Customer Representative – As determined by the OGB Chair

FAA ENTERPRISE ARCHITECTURE BOARD

- Ensures the FAA adheres to Federal statutory and regulatory requirements regarding Enterprise Architecture;
- Aligns information technology decisions with business and investment strategies;
- Facilitates the FAA's transition to the target EA;
- Facilitates the collaboration of enterprise architecture and technical expertise of subject matter experts throughout the Agency;
- Promotes data and information reuse through enterprise information management;
- Implements the use of enterprise architecture and systems planning frameworks that facilitate an understanding of technologies and application to business issues;
- Communicates and champions Enterprise Architecture throughout the FAA;
- Approves investment program naming in accordance with FAA nomenclature standards;
- Reviews the annual FAA EA Roadmaps and recommend for approval to the JRC;
- Reviews and approves FAA EA Roadmap changes via Architecture Change Notices (ACN) that guide the FAA towards a target state architecture;
- Minimizes duplication and redundancy in investments and IT capabilities, fosters IT standardization, and promotes reuse of technology, data, and business assets;
- Approves and complies with standards and policies that enable reuse, interoperability, and cost efficiency;
- Approves readiness for Concept and Requirements Definition; and
- Approves processes related to FEAB and subordinate groups, as listed in the FEAB Standard Operating Procedures (SOP).

The FEAB members include the following or their designated representatives:

- Deputy Assistant Administrator for Acquisition and Business Services;
- Chief Operating Officer of the Air Traffic Organization;
- Vice President of the Program Management Organization;
- Deputy Assistant Administrator for Information & Technology;

- Deputy Assistant Administrator for Financial Services;
- Chief Counsel;
- Associate Administrator for Aviation Safety;
- Associate Administrator for Airports;
- Assistant Administrator for NextGen; and
- Assistant Administrator for Policy, International Affairs and Environment.

ARCHITECTURE REVIEW BOARD

- Works with service organizations and program offices to prioritize and time-phase new operational improvements and operational sustainments within the Mission Support architecture roadmap.

TECHNICAL REVIEW BOARD

- Works with service organizations and program offices to prioritize and time-phase new operational improvements and operational sustainments within the NAS architecture roadmap.

<u>Secretariats</u>

JRC EXECUTIVE SECRETARIAT

- Supports the FAA Acquisition Executive;
- Develops, maintains and obtains JRC member signatures on the JRC Charter;
- Manages the investment decision-making process for all investment decisions;
- Facilitates the efforts of service organizations seeking an investment decision to ensure timely and effective investment decision-making;
- Manages the readiness process which uses criteria based on the AMS policy to evaluate the readiness of an investment initiative seeking an investment decision prior to placing it on the JRC meeting agenda to obtain a decision;
- Manages the electronic investment decision process;
- Obtains JRC member signatures on the investment decision documents after approval of a final investment decision;
- Maintains the official repository of investment decision documentation, records of decision, meeting minutes and assigned action items;
- Develops and maintains investment decision guidance documents and processes;
- Coordinates JRC meeting dates, agenda, and arranges logistics; and
- Prepares records of decision from JRC investment decision meetings and acquisition quarterly program reviews.

OPERATIONS GOVERNANCE BOARD SECRETARIAT

- Manages the decision-making process for all Mission Support, Operations-funded assets the OGB reviews;
- Facilitates the efforts of service organizations and the Acquisition Readiness Team to ensure

timely and effective decision making;

- Maintains the official repository of OGB decision documentation, records of decision, meeting minutes and assigned action items;
- Develops, maintains and obtains OGB member signatures on the OGB Charter, as well as coordinates OGB meeting dates, agenda, and arranges logistics; and
- Receives and reviews initial intake forms, and conducts preliminary risk reviews in order to provide a governance path recommendation to the OGB.

ACQUISITION EXECUTIVE BOARD SECRETARIAT

- Develops, maintains and obtains JRC member signatures on the AEB Charter;
- Coordinates AEB meeting dates, agenda, and arranges logistics;
- Receives, reviews and tracks ACAT determination requests;
- Receives and distributes to AEB members proposed changes to acquisition management policy, process, practices and procedures;
- Facilitates the efforts of FAA organizations to ensure timely approvals to proposed policy, guidance, practice and procedure changes;
- Maintains the official repository of AEB decision documentation, records of decision, meeting minutes and assigned action items.

FEAB SECRETARIAT

- Coordinates with the JRC executive secretariat for JRC approvals;
- Notifies the JRC executive secretariat for Architecture Change Notices (ACN) and Concept and Requirements Definition Readiness Decision (CRDRD);
- Facilitates the efforts of FEAB co-chairs and FEAB members to ensure timely and effective decision-making;
- Maintains the official repository of FEAB decision documentation, meeting minutes and assigned action items;
- Obtains FEAB co-chair and Chief Architects signature on the Architecture Change Notices (ACN) after approval;
- Obtains FEAB member signatures on the FEAB Charter after approval of the JRC; and
- Coordinates FEAB meeting dates, agenda, and arranges logistics.
- Analyzes FEAB processes and recommends improvements for FEAB approval.

IN-SERVICE DECISION SECRETARIAT

- Manages the deployment planning process for the Joint Resources Council;
- Coordinates with the JRC executive secretariat to verify that readiness criteria for a final investment decision have been satisfied;
- Facilitates the efforts of service organizations to ensure timely and effective in-service decision-making;
- Uses AMS-based criteria to evaluate the status of each program seeking an in-service decision before scheduling the program for a stakeholder and in-service decision meeting;
- Prepares records of decision; and
- Tracks in-service decision action plans until closure.

Offices and Executives

ASSOCIATE AND ASSISTANT ADMINISTRATORS AND THE CHIEF OPERATING OFFICER

- Coordinate and integrate activity across line-of-business service organizations to ensure resources are directed at priority FAA strategic and performance goals and to ensure there is no overlap or redundancy;
- Require service analysis for designated services (e.g., en-route service, terminal service, regulatory service, certification service) within the line of business or staff office;
- Provide staff support to concept and requirements definition and investment analysis activity for service needs within the line of business or staff office;
- Implement non-material solutions to a service need that emerges any time during service analysis or investment analysis; and
- Oversee investment program execution by service organizations within the line of business or staff office.

CHIEF FINANCIAL OFFICER

- Jointly approves the acquisition program baseline or execution plan for investment programs with other Joint Resource Council members;
- Serves as a core member of the Joint Resources Council; and
- Approves OMB Major IT Business Cases for designated capital investments before submission to the Department of Transportation and Office of Management and Budget.

CHIEF INFORMATION OFFICER

- Serves as a core member of the Joint Resources Council;
- Chairs the Information Technology Shared Services Committee;
- Approves OMB Major IT Business Cases for designated capital investments before submission to the Department of Transportation and Office of Management and Budget;
- Jointly approves the acquisition program baseline or execution plan for investment programs with other Joint Resources Council members; and
- Oversees the enterprise architecture.

ACQUISITION EXECUTIVE

- Manages AMS policy;
- Chairs the Joint Resources Council;
- Approves acquisition category designations and AMS tailoring or waivers;
- Chairs acquisition quarterly program reviews; and
- Approves OMB Major IT Business Cases for designated capital investments before submission to the Department of Transportation and Office of Management and Budget.

OFFICE OF THE CHIEF COUNSEL

- Represents FAA legal interests on product or service teams engaged in the acquisition of goods and services;
- Exercises independent professional judgment, advises teams on relevant legal, governmental, and business issues, and promotes the legality and integrity of acquisition actions;
- Represents the FAA in connection with procurement-related litigation, alternative dispute resolution, and other matters; and
- Serves as core member of the Joint Resources Council.

VICE PRESIDENTS (ATO) AND SERVICE DIRECTORS (NON-ATO)

- Responsible and accountable for the delivery of services by service organizations under their management;
- Deliver status briefings for their investment portfolio to the Joint Resources Council at acquisition quarterly program reviews;
- Approve plans for concept and requirements definition and assign necessary human resources;
- Make the decision to enter concept and requirements definition after all entrance criteria are satisfied;
- Assess operational assets annually at a minimum to determine whether they should continue in service or be modified, upgraded, or removed from service;
- Approve plans for investment analysis and assign necessary human resources;
- Approve the program requirements document and the implementation strategy and planning document; and
- Oversee the annual update and submission of the OMB Major IT Business Case for designated investment programs.

SOURCE SELECTION OFFICIAL

- Assures source evaluation team competence, cohesiveness, and effectiveness;
- Assigns responsibility to a source evaluation team member to mark all source selection sensitive information with the designation "source selection sensitive information";
- Approves source evaluation plans and assures the evaluation conforms to the stated evaluation criteria; and
- Makes down-select decisions and assumes full authority to select the source for award.

CONTRACTING OFFICER

- Serves as the source selection official for procurements not subject to the JRC process;
- Ensures, when applicable, conflict of interest documentation is obtained from the source selection official and all source evaluation team members; with legal counsel, determines if any actual or apparent conflict of interest exists and if so resolves or mitigates the conflict;
- Ensures source evaluation team members are briefed on sensitivities of the source selection process, prohibition against unauthorized disclosure of information (including their responsibility to safeguard proposals and any documentation related to the source selection team proceedings), and requirements concerning conflict of interest;

- Ensures source selection official and source evaluation team members provide nondisclosure of information statements;
- Coordinates communications with industry, controls all written documentation issued to industry, and conducts all debriefings;
- Participates during screening, selection, and debriefing phases of source selection to ensure fair treatment of all offerors;
- Issues letters, public announcements, screening information requests and amendments, and other procurement documents;
- Ensures the contract is signed by a contractor representative with the authority to bind the contractor; with legal counsel, ensures all contractual documents comply with applicable laws, regulations, and policies; and
- Executes, administers, and terminates contracts and makes related determinations and decisions that are contractually binding.

OFFICE OF DISPUTE RESOLUTION FOR ACQUISITION

- FAA Administrator's impartial administrative forum for adjudication of bid protests and contract disputes arising under the AMS;
- Provides dispute resolution services to the FAA and its private business partners, implementing FAA policy to utilize Alternative Dispute Resolution (ADR) to the maximum extent practicable;
- Conducts a streamlined adjudication process for matters un-resolvable through ADR;
- Provides "Findings and Recommendations", and issues orders and decisions supported by the case record and law, on behalf of the FAA Administrator;
- Promulgates and operates in accordance with rules of procedure; and
- Recommends changes to the Acquisition Management System.

OFFICE OF INFORMATION & TECHNOLOGY, STRATEGY & PERFORMANCE SERVICE, INVESTMENT PORTFOLIO & CPIC BRANCH

- Provides process, guidance, training, and consultation to service organizations in the preparation of OMB Major IT Business Cases;
- Independently scores OMB Major IT Business Cases and provides feedback to service organizations and the JRC executive secretariat for designated investment programs;
- Consolidates and reports major program schedule and cost performance data, variance analysis, and corrective action plans to the Information Technology Shared Services Committee, Department of Transportation, and Office of Management and Budget; and
- Conducts earned value management assessments for programs requiring submission of an OMB Major IT Business Case to the Office of Management and Budget and ensures earned value management transition plans for those programs are implemented effectively.

INVESTMENT PLANNING AND ANALYSIS OFFICE

- Provides leadership and expertise in the preparation of business cases for JRC decisions;
- Advises investment analysis teams during service analysis, concept and requirements definition, and investment analysis;
- Provides leadership and expertise in the exploration, development, and analysis of

alternatives;
- Evaluates the business case and supporting documentation prior to investment decisions;
- and
- Develops and maintains policy, standards, guidance, and templates for investment analysis and business case preparation.

Organizations and Committees

NEXTGEN ORGANIZATION

- Manages the corporate research budgeting process;
- Coordinates annual development of the National Aviation Research Plan;
- Defines research plan selection, management, and evaluation criteria for research activities in support of NextGen;
- Interfaces with Office of the Secretary of Transportation, Office of Management and Budget, Congress, trade organizations, industry, international organizations, and other government organizations for FAA-level research issues; and
- Provides test and evaluation services.

NAS SYSTEMS ENGINEERING SERVICES ORGANIZATION

- Performs corporate-level service analysis for the NAS;
- Oversees the NAS architecture;
- Develops and maintains tools for conducting service analysis;
- Work with both corporate strategic planning and service organizations to ensure consistency between service planning and the long-range strategic direction of the FAA;
- Works with service organizations to translate user needs into a sequenced and traceable architecture that defines the functions and sub-functions necessary to achieve intended services or operational capability;
- Works with service organizations to determine realistic alternative solutions to service need and assess their impact on the NAS architecture;
- Works with service organizations to conduct service analysis and incorporate associated recommendations into the NAS architecture; and
- Works with service organizations to develop the program requirements document.

NEXTGEN LIFECYCLE INTEGRATION ORGANIZATION

- Coordinates service analysis activity across service organizations to ensure alignment with FAA strategic and performance goals and to eliminate redundant activity, duplicate benefits, service gaps, and service overlap;
- Develops and maintains standard guidance for conducting service analysis and concept and requirements definition;
- Assists service organizations in establishing a service analysis capability and conducting service analysis;
- Leads planning and activities for concept and requirements definition;

- Ensures the requirements, policy, and procedures identified in the AMS and FAST are followed by stakeholders;
- Provides engineering analysis and recommendations to ensure technical integration and integrity is consistent with financial and policy goals, outcomes, and commitments;
- Ensures implementation efforts are harmonized with operations and stakeholder priorities
- Ensures risks are addressed collaboratively to facilitate delivery of operational capabilities and benefits; and
- Develops, maintains, communicates, and supports the execution of enterprise-wide planning artifacts that describe the lifecycle of the National Airspace System.

INFORMATION TECHNOLOGY RESEARCH AND DEVELOPMENT ORGANIZATION

- Performs corporate-level Mission Support service analysis and coordinates service activity across service organizations to ensure alignment with FAA strategic and performance goals as well as to eliminate redundant activity, service gaps, and duplicate benefits;
- Oversees the Mission Support architecture;
- Develops and maintains tools and standards for conducting Mission Support service analysis;
- Works with corporate strategic planning and service organizations to ensure consistency between service planning and long-range strategic planning of the FAA;
- Works with service organizations to translate user needs into a sequenced and traceable Mission Support architecture that defines the functions and sub-functions necessary to achieve intended services or operational capability;
- Leads planning and activity for concept and requirements definition and works with Mission Support service organizations to define program requirements, determine realistic solutions to service need, and assess their impact on the Mission Support architecture;
- Ensures policy and requirements identified in AMS and FAST are followed by Mission Support stakeholders;
- Provides engineering analysis and recommendations to ensure technical integration and integrity is consistent with financial and policy goals, outcomes, and commitments; and
- Ensures implementation efforts are harmonized with operations and stakeholder priorities.

OFFICE of INFORMATION & TECHNOLOGY, SOLUTION DELIVERY SERVICE, SOLUTION STRATEGY DIVISION, EA BRANCH

- Approves Mission Support information technology and chargeback mechanism;
- Approves new Mission Support information technology projects for submission to the Joint Resources Council for funding;
- Oversees performance of information technology investments; and
- Reviews information technology shared service operational performance against baseline measures and tracks cost savings against operational baselines.

SERVICE ORGANIZATIONS

- Plan and manage resources as assigned by the Joint Resources Council to deliver services

within their service area of responsibility;
- Conduct service analysis for assigned services and plan service delivery;
- Maintain consistency between service planning and FAA strategic and performance goals;
- Work with the appropriate systems engineering organization to develop the solution concept of operations and requirements, as required;
- Work with the appropriate systems engineering and operating organizations to determine realistic alternative solutions to service needs; and
- Identify, justify, obtain, and manage research, study, and analysis within their service area of responsibility.

Teams and Groups

CAPITAL INVESTMENT TEAM

- Assesses the business justification, budget affordability, and priority of investment initiatives and provides findings to the Joint Resources Council before investment decisions;
- Performs corporate budget formulation and execution, including budget impact assessments, and recommendations of funding offsets and reprogramming due to program baseline changes, marks/pass-backs from the Office of the Secretary of Transportation, Office of Management and Budget, and Congress; and
- Establishes and maintains an up-to-date prioritization of all on-going and proposed investment programs for use in budget impact assessments and determination of offsets.

INDEPENDENT SAFETY ASSESSMENT TEAM

- Conducts independent operational assessment for programs as directed by the Vice President of ATO safety and Technical Training.

PRODUCT OR SERVICE TEAM

- Develops, procures, and delivers products or services for users or customers;
- Manages the acquisition program baseline or execution plan of investment programs it is implementing and reports breaches to management;
- Updates the OMB Major IT Business Case annually for designated programs;
- Assists in development of program requirements recorded in the program requirements document;
- Develops cost and schedule baselines during final investment analysis for the solution selected for implementation;
- Acquires new or improved capability for services and products throughout their lifecycle;
- Keeps planning current during solution implementation in the implementation strategy and planning document;
- Supports the conduct of post-implementation reviews;
- Ensures coordination and obtains input from subject-matter experts in critical functional

disciplines. These disciplines vary by the type of program, but typically include: management of requirements; test and evaluation; deployment planning; logistics support; procurement planning; real property; acquisition, management, and disposal; configuration management; earned value management; human factors; environmental, occupational safety and health, and energy considerations; information technology; system engineering; security; system safety management; spectrum management; risk management; regulation and certification; telecommunications. The service organization is responsible to ensure that all relevant disciplines have been contacted whether or not they appear in the above list.

SOURCE EVALUATION TEAM

- Drafts all screening information requests;
- Formulates the source evaluation plan;
- Reviews lessons-learned reports that provide meaningful insight into the procurement;
- Ensures an in-depth review and evaluation of each submitted screening document against
- FAA requirements and evaluation criteria;
- Prepares the source evaluation report (including recommendations, if requested) so the source selection official may make down-selection and/or award decisions, and if requested by the source selection official, prepares documentation for the decision rationale;
- Oversees all procedural and administrative aspects of the procurement;
- Selects advisors to assist the team in its evaluation, if required;
- Participates in all debriefings; and
- Prepares a lessons learned memorandum after completing the source selection.

CAPTURE TEAM

- Oversees and coordinates implementation of assigned investment increments required to obtain the assigned operational capability; and
- Identifies operational capability risks and issues and recommends corrective action to the portfolio manager.

CONCEPT STEERING GROUP

- Coordinates activity to develop and validate new concepts and ideas during service analysis; and
- Facilitates the review of new ideas and proposed changes to the NAS Concept of
- Operations.

<u>Personnel</u>

PORTFOLIO MANAGER

- Oversees and reports operational capability status to the NextGen Management Board;

- Evaluates operational capability demand against resource constraints;
- Identifies and assesses operational capability risks and recommends corrective actions;
- Suggests trade-offs and recommendations within the operational capability investment increments to the NextGen Management Board; and
- Participates in program reviews and budget build processes for elements of the operational capability.

EARNED VALUE MANAGEMENT FOCAL POINT

- Serves as the FAA earned value management executive agent;
- Assists program managers and business managers to apply earned value management requirements to capital investment programs and contracts;
- Coordinates earned value management activities for FAA with other government agencies and with industry and professional associations; and
- Collects monthly schedule and cost performance data, variance analysis, and corrective action plans for major programs.

PRODUCT OR SERVICE TEAM LEADER

- Serves as the source selection official for procurements subject to the JRC process unless otherwise designated by the Joint Resources Council;
- Serves as spokesperson for the team;
- Guides, encourages, and coaches team members;
- Leads and facilitates team efforts without dominating the process;
- Keeps the team focused on consensus decision-making and ensures individual team members do not dominate team deliberations;
- Ensures all stakeholders are members of the team and that they participate in team decision-making;
- Leads development of cost, schedule, and performance baselines during final investment analysis;
- Determines the management approach for an investment program and applicable contracts based on program size, complexity, risk, and FAA earned value management policy;
- Manages the acquisition program baseline or execution plan and reports performance information to management, including anticipated or actual breaches with corrective actions or a request for revised baseline values;
- In consultation with the contracting officer, determines the acquisition strategy for obtaining the selected solution and establishes the appropriate earned value management and reporting applications for each contract;
- Assures FAA program needs are acquired through the appropriate source selection process and assures screening information requests include adequate definition of requirements;
- Assures qualified technical evaluators, if required, assist the source evaluation team in the evaluation; and
- In consultation with the contracting officer, conducts the integrated baseline review, assisted by the contracting officer’s representative;

Appendix B: Acquisition Planning and Control Documents Revised 4/2019

AMS Section 1.2.5 provides guidance and direction relative to acquisition categories for investment decision-making and governance. These categories ensure the appropriate level of oversight and documentation requirements applied to each FAA investment program.

This appendix contains the purpose, approval authority, distribution, and content for AMS planning and control documents. Templates are available for each document in FAST.

The documents are:

- Acquisition program baseline or execution plan
- Program requirements document
- Business case
- Implementation strategy and planning document
- Program Management Plan

These documents are structured as an integrated set with clear progression and traceability from service need to requirements to implementation strategy to actions and work activities. Template instructions are comprehensive in scope to accommodate complex investment programs.
They are tailored to be appropriate for each specific investment program.

Acquisition Program Baseline or Execution Plan Revised 7/2019

PURPOSE
The Acquisition Program Baseline (APB) documents the cost, schedule, and performance baselines for the investment program. It is the mutual agreement between the investment decision authority, the performing organization, and the user organization concerning the performance and capability the program will provide and the cost and schedule authorized for the program. There are two APB templates. The first is for new investments (acquisition categories 1NI-5NI). The second APB template is to be used for technology refreshment programs (acquisition categories 4TR and 5TR).

DESCRIPTION
The acquisition program baseline is established at the final investment decision concurrent with approval of an investment program for implementation. The cost and schedule baselines are developed during final investment analysis by the service organization (working within the investment analysis team) that will implement and manage the program throughout its lifecycle.

The acquisition program baseline contains critical cost, schedule, and performance parameters and their associated values designated for control by the investment decision authority. They relate to corporate FAA's commitment to satisfying the mission need, achieving needed operational capability, and meeting schedule requirements of interdependent programs. Investment decision authority controls are identified during final investment analysis by the investment analysis team and approved by the investment decision authority. They define the empowerment boundaries of the service team during solution implementation.

APPROVAL
The chair of the investment decision authority approves the acquisition program baseline with the concurrence of other IDA members. Designated ACAT reviewers also sign the document. NOTE: No funding may be committed or obligated that would exceed the cost baseline in the acquisition program baseline

DISTRIBUTION
Send an electronic copy of the acquisition program baseline and updates to the JRC executive secretariat before a decision meeting per instructions in the JRC secretariat quick-start guide. The JRC executive secretariat maintains a database of all acquisition program baselines.

CONTENT
The acquisition program baseline consists of a cost baseline, schedule baseline, and performance baseline. Content is defined in the APB template.

Execution Plan

PURPOSE
The execution plan documents the cost, schedule, and performance parameters for investment programs that do not require an acquisition program baseline. The execution plan contains a description of program and the cost, schedule, and performance parameters that will be reported and tracked monthly.

DESCRIPTION
There are four execution plan templates. The first is the Variable Quantity Execution Plan template used for acquisition categories 1VQ through 5VQ. The second and third Execution Plan templates are the Facility Execution Plans. The program-level Facility Execution Plan is used for acquisition categories 1F through 5F. The project-level Facility Execution Plans is used for acquisition sub-categories F1, F2, and F3. The fourth is the Technology Refresh Portfolio Execution Plan and is used for acquisition category 1TRP

APPROVAL
Approval is defined in the execution plan templates.

DISTRIBUTION
Send an electronic copy of the execution plan and updates to the JRC executive secretariat.

CONTENT
Content is defined in the execution plan templates.

Program Requirements Document Revised 10/2012

PURPOSE
The program requirements document establishes the operational framework and performance baseline for an investment program. It is the basis for evaluating the readiness of products and services of an investment program to become operational.

APPROVAL
Within the ATO, the Vice Presidents of the organization executing the investment program during solution implementation and the operating organization approve the program requirements document. Within the other lines of business, the second-level executive of the organization executing the program in solution implementation approves the program requirements document.

DISTRIBUTION
Send an electronic copy of the program requirements document and updates to the JRC executive secretariat before a decision meeting per instructions in the JRC secretariat quick-start guide. The JRC executive secretariat maintains a database of all program requirements documents.

CONTENT
At the readiness for investment analysis decision, the program requirements document defines preliminary functional and performance requirements any potential solution to mission need must satisfy. At the final investment decision, the program requirements document defines exactly the operational concept and requirements the investment program must achieve.

The author must use the program requirements document template in FAST and must provide information for all sections. For sections that do not apply, the author so indicates.

Business Case Revised 10/2012

PURPOSE
The business case summarizes cost, schedule, and benefit information for each alternative solution to mission need for use by the investment decision authority when making initial and final investment decisions.

APPROVAL
The Vice President (ATO) or Director (non-ATO) of the implementing service organization approves the business case. Designated ACAT reviewers review and sign the business case.

DISTRIBUTION
Send an electronic copy of the business case and updates to the JRC executive secretariat before a decision meeting per instructions in the JRC secretariat quick-start guide. The JRC executive secretariat maintains a database of all business cases.

CONTENT
The business case synopsizes the results of investment analysis. At the initial investment decision, it describes alternatives, assumptions, and constraints, and provides full lifecycle cost estimates, benefit estimates, schedule analysis, risk analysis, and economic analysis for each alternative. At the final investment decision, it updates this information and records full lifecycle information for the alternative selected for implementation.

The author must use the business case template in FAST and must provide information for all sections.

Implementation Strategy and Planning Document Revised 10/2015

PURPOSE
The implementation strategy and planning document (ISPD) provides the investment decision authority a summary characterization of the plans for solution implementation and in-service management of the proposed investment. It conveys the most critical, relevant, and meaningful information to support decision-making. More detailed and comprehensive plans are generated as part of acquisition best-practices at appropriate event-driven milestones, some of which occur before the final investment decision and some afterward. An initial ISPD is required for the initial investment decision covering specific sections identified in the ISPD template. A complete ISPD is required for a final investment decision. After the final investment decision, the ISPD is modified only if the program returns to the investment decision authority for a change to the investment decision and information needs to be modified.

APPROVAL
The ISPD is submitted for approval by the first level executive of the organization that will execute the program in solution implementation. Within ATO, the ISPD is approved by the Vice President of the organization that will execute the program and by the Chief Operating Officer/Deputy Chief Operating Officer. Outside ATO, the ISPD is approved by the second-level executive of the organization that will execute the program. Certain sections of the ISPD are reviewed and approved by specific executives, as follows:

> Section 2: Director, Acquisition and Contracting; and Director, Financial Analysis;
>
> Sections 5, 6 and 10: ATO Vice President for Technical Operations, (NAS and Mission Support programs) and Director, AIT Infrastructure & Operations, (Mission Support programs);
>
> Sections 1, 4 and 5: Director of NextGen Engineering Services (NAS programs); Director, AIT Strategy & Performance Service (Mission Support programs)
>
> Sections 6.7, 7.1, 9.2 and 10.2: Vice President, Safety and Technical Training.

The organization executing the program in solution implementation obtains the required approvals before the investment decision with the exception of Joint Resource Council members, which are obtained at the time of the JRC decision by the JRC executive secretariat. The JRC Chairperson signs the ISPD on behalf of the JRC members concurrent with the investment decision.

DISTRIBUTION
Send an electronic copy of the ISPD to the JRC executive secretariat before an initial or final investment decision. The JRC executive secretariat maintains a database of all ISPDs.

CONTENT
The originating office uses the ISPD template in FAST to generate the document. For sections that do not apply to the investment program, the originating office so indicates.

Program Management Plan Added 1/2015

PURPOSE

The program management plan (PMP) defines how the service organization or program office will manage the implementation strategy recorded in the ISPD approved by the Joint Resources Council at the final investment decision. The intent is to ensure: (1) the full scope of program implementation is understood and planned, and (2) agreements are established with key support organizations (e.g., logistics, test, information security, safety, systems engineering) that must provide resources or otherwise contribute to successful program implementation. Do not repeat the implementation strategy recorded in the implementation strategy and planning document – explain how you will manage the execution of that strategy.

A revision to the PMP occurs in the event of a baseline change decision that affects the implementation strategy significantly or when human resource needs change substantially as the program progresses through solution implementation.

APPROVAL

The program management plan is circulated for review with the implementation strategy and planning document. It is approved by the Director of the service organization assigned responsibility for implementing the investment program after concurrence by all key stakeholders through a formal review cycle. Key stakeholders are those organizations that have a vested interest in the operational assets to be provided by the investment program, as well as those organizations that must support the implementing service organization or program office to achieve successful implementation and operational use.

DISTRIBUTION

Send an electronic copy of the approved program management plan to the JRC executive secretariat before the final investment decision. Send an electronic copy of all approved revised PMPs to the JRC executive secretariat as well. The JRC executive secretariat maintains a database of all approved PMPs and revisions.

CONTENT

Use the PMP template in FAST to prepare the document. Scope and detail should be commensurate with the complexity of the investment program. Be succinct and complete. Quality is preferred over length.

Appendix C: Definitions Revised 4/2019

Access is 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, access is the ability, authority, or opportunity to obtain knowledge of such information or materials.

Acquisition Career Program within FAA requires personnel in specified engineering and management disciplines and specialty functions to apply for, acquire, and maintain certification at the appropriate level for the work they perform. Certification requirements align with federal acquisition certification programs.

Acquisition Category is the classification assigned to investment initiatives by the Acquisition Executive Board and endorsed by the Joint Resources Council. The FAA classifies investment initiatives by investment type (new investment, software enhancement, technology refreshment, variable quantity, facility initiative, or support service contract) and then categorizes based on qualitative and quantitative criteria such as cost, risk, and political sensitivity.

Acquisition Category Determination Request is the form that a service organization or program office fills out on behalf of the sponsoring Director when seeking to obtain an acquisition category designation from the Acquisition Executive Board for an investment initiative.

(FAA) Acquisition Executive is the official that manages acquisition management policy within the FAA; chairs the Joint Resources Council; approves acquisition category designations and AMS tailoring requests; chairs acquisition quarterly program reviews; and approves OMB Major IT Business Cases for designated capital investments before submission to the Department of Transportation and Office of Management and Budget.

Acquisition Executive Board is the executive-level body that assists and supports the Acquisition Executive and Joint Resources Council in establishing, changing, communicating, and implementing acquisition management policy, practices, procedures, and tools. The Acquisition Executive Board also recommends to the Joint Resources Council the appropriate acquisition category for investment initiatives.

Acquisition Executive Board Secretariat is the official who coordinates AEB meeting dates, agendas, and logistics; reviews and manages the adjudication of ACAT determination requests; receives and distributes to AEB members proposed changes to acquisition management policy, process, practices, and procedures; facilitates review of proposed policy, guidance, practice, and procedure changes by FAA organizations to ensure timely adjudication; and maintains the official repository of AEB decision documentation, meeting minutes, and assigned action items.

Acquisition Management System establishes policy and guidance for all aspects of lifecycle acquisition management for the Federal Aviation Administration. It is a fully coordinated set of policies, processes, and computer-based management tools that guide the workforce through the lifecycle management process from the determination of service needs to the procurement and lifecycle support of products and services that satisfy those needs. It also defines all procurement policy and guidance for the agency.

Acquisition Planning is the process by which all acquisition-related management and engineering disciplines of an investment initiative are developed, coordinated, and integrated into a comprehensive plan for obtaining a capability that meets specified requirements within 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 when products and services are required.

Acquisition Planning and Control Documents are an integrated set of planning and control documents required for JRC-approved investment initiatives. They consist of the program requirements document, business case, implementation strategy and planning document, program management plan, and acquisition program baseline or execution plan. These documents constitute an integrated set with clear progression and traceability from service need to requirements to implementation strategy to actions and work activities necessary to obtain a product that satisfies ratified service needs.

Acquisition Program Baseline establishes the performance an investment program must achieve, as well as the cost and schedule boundaries within which the program is authorized to proceed. It is a formal document approved by the Joint Resources Council at the final investment decision, and is the implementation contract between the FAA and the service organization acquiring an approved product or service.

Acquisition Quarterly Program Review is conducted by the Joint Resources Council to oversee the cost, schedule, and technical performance of ongoing investment programs using a standard set of program and performance measures (AMS Section 2.1.5). The reviews use SPIRE, earned-value management (or equivalent), and enterprise architecture data to assess technical, cost, and schedule issues that may affect the ability of the program to meet its acquisition program baseline or execution plan values.

Acquisition Readiness Team is a cross-functional group formed in support of the Operations Governance Board to collaborate with customers and develop decision-ready investment packages for mission-support operations-funded investment initiatives. The team is comprised of subject-matter experts that assist with planning for more complex, higher risk initiatives through the Operations Support Pathway process.

Acquisition Strategy is the overall approach for acquiring a capability to meet agency requirements and perform within the boundaries set forth in the acquisition program baseline or execution plan. The strategy considers all aspects of an initiative such as acquisition approach, contracting, logistics, testing, systems engineering, safety and security, risk management, program management, impact on facilities and infrastructure, human factors, schedules, and cost. Results are documented in the implementation strategy and planning document during final investment analysis.

Acquisition Strategy Artifact is a key document produced for mission-support capital investments funded from the Operations appropriation. It documents the best-value approach for procuring a solution for an FAA mission-support operations-funded initiative.

Acquisition System Advisory Group is a cross-organizational body that serves as the technical arm of the Acquisition Executive Board. It evaluates proposed changes to the acquisition management system to ensure they improve and strengthen it and are consistent with agency direction.

Acquisition Workforce Council is the executive-level body that supports the Acquisition Executive in establishing, communicating, and implementing acquisition workforce plans and programs to ensure the FAA has the necessary acquisition talent today and in the future. It sets acquisition workforce certification requirements and oversees implementation and annual update of FAA Acquisition Workforce Plan.

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).

Affordability is the relative capacity of the FAA to fund a specific investment initiative when evaluated against all other investment needs of the agency.

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 is 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, fact-finding, mini-trials, and arbitration. These procedures may involve the use of neutrals.

Alternatives Analysis is the second phase of the Operations Support Pathway. The line of business, along with input and review of the acquisition readiness team for Governance Path C initiatives, creates required planning artifacts. Alternatives analysis is also required during initial investment analysis for F&E-funded capital assets.

AMS Building Blocks are foundation elements of the FAA Acquisition Management System. They include the FAA acquisition career program, acquisition planning and control documents, the FAA standard work breakdown structure, policy and functional flowcharts, investment planning, measurement and analysis, portfolio management, quality assurance, service management, and

verification and validation.

AMS Table of Acquisition Categories contains the criteria for assigning the appropriate acquisition category to each investment initiative, as well as implementation requirements and approval authority for each category.

AMS Tailoring Request Process is the means by which a service organization may request tailoring of the AMS lifecycle management process for an investment initiative. The service organization or program office must submit the tailoring request to the Acquisition Executive Board before the investment analysis readiness decision

Approval is 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.

Architecture Review Board oversees the technical content of the mission-support component of the FAA Enterprise Architecture. It works with the lines of business to identify and resolve cross-domain issues and to time phase new operational improvements and sustainment actions intended to remedy service shortfalls and technical opportunities related to non-NAS mission-support service needs.

Auctioning Techniques is a method of screening vendors using commercial competition. Auctioning techniques include indicating to an offeror a cost or price that it must meet to obtain further consideration; advising an offeror of its price standing relative to another offeror; and otherwise furnishing information about the prices of other offerors prices. Use auctioning techniques only for commercially available products.

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

Baseline Variances are positive or negative deviations from baseline values. The FAA uses baseline variances to evaluate whether an investment program is proceeding as planned or whether it is

deviating from plan thereby requiring management attention and action.

Best Value is 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 of these offerors.

Block Upgrades are planned improvements to operational assets stipulated at the final investment decision that involve the use of sustainment or investment resources to upgrade components of fielded products as needed.

Budget Impact Assessment is the process of assessing the budget impact of each alternative solution developed during investment analysis against all existing programs in the FAA financial baseline for the same years. The FAA uses standard criteria to determine the priority of the candidate investment 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 baseline changes for existing programs that involve an increase in the cost baseline and the need to reallocate resources.

Business Case summarizes the analytical and quantitative information developed during investment analysis in search of the best means for satisfying a service need. The business case is the primary information document supporting the initial investment decision.

Business Case Analysis focuses on those key factors that demonstrate the value and worth of a proposed investment initiative to the FAA and aviation community. Key factors include but are not limited to lifecycle cost, investment cost, benefits, benefits-to-cost ratio, risk, affordability, net present value, and payback period.

Business Case Decision is the second decision point of the Operations Support Pathway. It applies only to those initiatives assigned Governance Path C. The Operations Governance Board reviews the scaled business case and decides if the initiative should proceed to solution development.

Cancellation of a procurement is the termination of all requirements for the remaining years of a multi-year contract. Cancellation results when the contracting officer notifies the contractor of non-availability of funds for contract performance in 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 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 actually paid to the contractor upon settlement for unrecovered costs (which can only be equal to or less than the ceiling) is the cancellation charge. This ceiling generally includes only nonrecurring costs.

Capability Shortfall is the difference between the projected demand for services and the ability of the FAA to meet that demand with current assets.

Capital Asset is property of any kind held by a business or organization. It includes all kinds of property, movable or immovable, tangible or intangible, fixed or circulating.

Capital Investment Team is the group that coordinates development of the FAA capital budget request each year and assesses the business justification, affordability, and priority of investment initiatives for the Joint Resources Council.

Capital Planning and Investment Control is 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. Service 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 is the group that coordinates integrated decision-making across all investment increments necessary to obtain an operational capability for the National Airspace System. The team monitors implementation of each investment increment and may recommend changes in the distribution of financial assets among those increments to optimize delivery of the operational capability. Capture teams also participate in test activities to validate that an operational capability has achieved its projected benefits and to plan and execute remedial action when it has not.

Cardholder is the individual government employee within an 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 Contracting Office or designee granting the use of purchase and credit transactions made within the established billing period.

Certification Renewal is the requirement that all acquisition workforce members working in specified core disciplines (see AMS section 5.1) maintain certification in those disciplines by earning continuous learning points. Workforce members earn continuous learning points through training, seminars, conferences, special projects, education, and other developmental activities related to the discipline.

Certified Cost or Pricing Data refers to all facts that, at the time of price agreement for a prospective contract, 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.

Change Management is that portion of the configuration control process whereby change to the

performance, function, or physical attributes of an entity is managed and recorded to ensure the exact configuration of the entity is known.

Chief Counsel is the official who represents FAA personnel and organizations on legal, governmental, and business issues; promotes the legality and integrity of acquisition actions; **r**epresents the FAA in connection with procurement-related litigation, alternative dispute resolution, and other matters; and serves as core member of the Joint Resources Council.

Chief Financial Officer is the official responsible for managing all aspects of FAA budget formulation, execution, and reporting. The Chief Financial Officer serves as a core member of the Joint Resources Council; jointly approves the acquisition program baseline or execution plan (as appropriate) with other Joint Resource Council members; and approves OMB Major IT Business Cases for designated capital investments before submission to the Department of Transportation and Office of Management and Budget.

Chief Information Officer is the official responsible for managing all aspects of information technology within the FAA. The Chief Information Officer serves as a core member of the Joint Resources Council; chairs the Information Technology Shared Services Committee; approves OMB Major IT Business Cases for designated capital investments before submission to the Department of Transportation and Office of Management and Budget; jointly approves the acquisition program baseline or execution plan for investment programs with other Joint Resources Council members; and oversees the FAA Enterprise Architecture.

Claim, as used herein, means a contract dispute.

Classified Information is 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, "commercially available software "commercial component(s)," "commercial product(s)," and "commercial off-the-shelf (COTS)"]

(1) 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.

(2) Any item that evolved from an item described in paragraph (1) 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.

(3) Any item that would satisfy a criterion expressed in paragraphs (1) and (2) 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.

(4) Any combination of items meeting the requirements of paragraphs (1), (2), (3), or (5) of this definition that are of a type customarily combined and sold in combination to the general public.

(5) 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 (1), (2), (3), or (4) 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.

(6) 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 sold based on hourly rates without an established catalog or market price for specific service performed.

(7) 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

(8) Any 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 developed for sale, lease, or license to the public and is currently available at a fair market value. See Commercial Item.

Commercial Product is a product in regular production sold in substantial quantities to the 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 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.

Commissioning within the FAA lifecycle management process occurs when a system, subsystem, equipment, or service is formally accepted and placed into operational service within the National

Airspace System. For products to which the flying public has access, commissioning requires written confirmation to airmen and the aviation industry via a notice to airmen.

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 consists of 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 operational support engineering functions and do not include administrative computer resources.

Concept and Requirements Definition is that portion of the FAA lifecycle management process when the program office or service organization (1) translates priority operational needs in the enterprise architecture into preliminary requirements and a solution concept of operations for the capability needed to improve service delivery, (2) quantifies the service shortfall in sufficient detail to enable the definition of realistic preliminary requirements and the estimation of potential costs and benefits associated with resolving the shortfall, and (3) identifies the most promising alternative solutions able to satisfy the service need.

Concept and Requirements Definition Plan specifies how tasks required for concept and requirements definition will be competed; defines roles and responsibilities of participating organizations; defines outputs and exit criteria; establishes a schedule for completion; and specifies needed resources.

Concept and Requirements Definition Readiness Decision is the decision gateway between service analysis and entry into concept and requirements definition. It is when the FAA Enterprise Architecture Board verifies: (1) a priority service shortfall, operational improvement, or operational sustainment is in an enterprise architecture roadmap; and (2) planning and resources are in place for the conduct for concept and requirements definition.

Concept Development is the second stage in the concept maturity and technology development 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 concept maturity and technology development process. It confirms that a concept has great promise toward meeting the service needs of the aviation community and establishes 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 concept maturity and technology development 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 Process governs activities directed toward the production of useful aviation-related 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.

Concept Steering Group consists of cross-organizational officials who coordinate activity to develop and validate new concepts and ideas during service analysis, as well as facilitate the review of new ideas and proposed changes to the NAS Concept of Operations.

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

Configuration Audit is the examination of artifacts related to a product to verify it has achieved required functional and performance requirements and that product design is accurately documented. The audit includes the review of documents, records, procedures, processes, and physical elements of the product. Sometimes the configuration audit consists of separate functional and physical configuration audits.

Configuration Change Management is a systematic process that ensures changes to released configuration documentation are properly identified, documented, evaluated for impact, incorporated, verified, and approved by an appropriate authority.

Configuration Control Boards are the official FAA forums for establishing configuration management baselines and approving subsequent changes to those baselines. AMS policy requires the following configuration control boards: service organizations, service areas, mission-support information technology, line of business staff offices, and solution providers.

Configuration Documentation is technical documentation that identifies and defines a product's performance, functional, and physical attributes.

Configuration Identification is the systematic process of assigning and applying unique configuration identifiers to a product, its components.

Configuration Item refers to the fundamental structural unit of a configuration management system. Examples of configuration items include individual requirements documents, software,

hardware, models, and plans. Software and hardware configuration items typically satisfy a specific functional or performance requirement.

Configuration Management is a process for establishing and maintaining consistency of a product's performance, functional, and physical attributes with its requirements, design, and operational information throughout its life.

(FAA) Configuration Management Authority coordinates development and establishment of configuration management policy, processes, and guidance within FAA and facilitates execution of configuration management at all organizational levels within the agency.

Configuration Management Process is the means by which the configuration of a product or service is established and managed. It consists of configuration identification, baseline management, configuration change management, configuration status accounting, and configuration verification and validation.

Configuration Status Accounting is the configuration management activity that captures, stores, and accesses configuration information needed to manage products and product information effectively.

Configuration Verification is the action that verifies the product has achieved its required attributes (performance requirements and functional constraints) and its product design is documented accurately.

Continuous Improvement is an ongoing effort to improve products, services, or processes. These efforts can seek "incremental" improvement over time or "breakthrough" improvement all at once. Within the acquisition management system, continuous improvement refers to the modification of AMS policy and guidance to obtain its key objectives of lower cost, shorter time to obtain, and better performance of agency capital assets.

Continuous Learning Points are measures of knowledge gained by acquisition workforce members to maintain certification for employment in specified acquisition management disciplines (see AMS Section 5.1). Workforce members earn continuous learning points through training, seminars, conferences, special projects, education, and other developmental activities related to each specific discipline.

Contract is a legal instrument used to acquire products and services for the direct benefit or use by the FAA. As used herein, contract 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 means a written request seeking as a matter of right, the payment of money, 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 the contracting officer has not rejected. 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.

Contracting Officer is any individual appointed by the government with the authority to enter into, administer, renew, or terminate contracts, as well as make related determinations and findings. This includes management and oversight of the source selection process associated with procurement actions.

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

Controversy or Concern during procurement is a material disagreement between the FAA and an offeror that could result in a protest.

Core Policy refers to the official policy governing the acquisition management system within the FAA. It consists of all sections and appendices of this document.

Corporate Portfolio Management is the process of making investment decisions within context of overall strategic planning and goals of the agency. Individual investment options must fit logically within this context and provide highest value to the agency and aviation community when compared against other investment options.

Cost as used within procurement policy consists of contractor expenses for contract performance, either estimated or actual.

Cost Accounting is the method of accounting that collects, classifies, and records all costs incurred in performing an activity or accomplishing a purpose.

Cost or Pricing Data - See "Certified Cost or Pricing Data" and "Information Other than Certified Cost or Pricing Data".

CRD Readiness Decision is the event in the AMS lifecycle management process that evaluates an investment opportunity for entry into concept and requirements definition. The FAA Enterprise Architecture Board makes the decision upon verification that the investment opportunity is in response to a priority service need in an enterprise architecture roadmap and that all resources and planning necessary for the conduct of concept and requirements definition are in place.

Critical Operational Issue is a key operational effectiveness or suitability issue that the agency must examine during operational test to determine the ability of a product or service to perform its intended mission.

Critical Performance Requirements are those requirements of a solution that represent attributes or characteristics considered essential to meeting the service need the investment program is seeking

to satisfy. They are part of the total program requirements that define the operational framework and performance baseline for the investment program. The agency records critical performance requirements and associated values in the program requirements document and acquisition program baseline or execution plan.

Customer is an external user of FAA products or services, such as airlines and the flying public. See User.

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

Data Item Description is a document that defines the data required from a contractor. It specifically defines the data content, format, and intended use.

Data Standardization and Management applies standards to facilitate data sharing across systems, programs, government agencies, and industry. Data standardization improves the transportability of data, facilitates cost-effective development and re-engineering, and improves the quality, utility, and integrity of FAA information products and resources. The FAA data management program consists of data registration, data standardization, data certification, and lifecycle data management.

Declaration of Operational Readiness occurs when the approving official(s) determines that the solution to a service need has achieved all essential functional and performance requirements and is fully suitable for operational service.

Decommissioning is the formal process within FAA for removing an operational asset from active status.

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

Deploy the Solution includes all activities necessary to install a new capability and bring into operational use. For NAS products and services, this may include transportation and delivery of equipment, installation and checkout, contractor acceptance and inspection, integration with other operational assets, field familiarization, declaration of initial operational capability, joint acceptance and inspection, dual operations, declaration of operational readiness, and removal and disposal of obsolete equipment. For operations-funded mission-support, non-developmental, commercially available, and solutions involving procedural or process changes, deployment activities may be much simpler. In all cases, deployment must include the activities necessary to achieve an operationally effective (meets user needs) and suitable (essential logistics support) solution.

Deployment is the transformation of a mechanical, electrical, or computer product from a packaged form to an operational state. It consists of all activities necessary to make a product or service available for use.

Deployment Phase is the fourth stage of the Operations Support Pathway. It is when the acquiring organization works with key stakeholders to implement the new service or capability and fulfill the requirements in the Functional and Performance Requirements document approved at the Investment Commitment Decision.

Deployment Planning is the process that prepares for and assesses whether a solution is suitable for deployment into its operational environment. Deployment planning is part of a continuous in-service review process that begins early in the lifecycle management process. All investment initiatives undergo some degree of deployment planning to ensure key aspects of fielding a new capability are planned and implemented, as well as to ensure the deployment does not create a critical deficiency in the operational environment.

Design to Cost is a concept that establishes cost elements as management goals to best balance 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 product lifecycle.

Development Testing determines whether a product or service has achieved its specified technical and performance requirements. Another objective is to verify the product or service is fully integrated and stable. The development contractor performs development testing witnessed by the FAA. Test activities can be conducted at the contractor's facility, the William J. Hughes Technical Center, or FAA field sites. The government may conduct development testing if the government develops the solution.

Developmental Assurance Program for Software is the combination of quality assurance with software development activity to ensure the product meets predetermined quality specifications and software development methodology, procedure, and process conform to agency standards.

DID Library is a database located on the FAA Acquisition System Toolset that contains standard, tailored data item descriptions organized within specific functional disciplines for use by service organizations and program offices when preparing screening information requests and FAA contracts.

Direct-work Maintenance Staffing refers to the direct person-hours required to operate, maintain, and support a product for the duration of its lifecycle.

Disapproval is the 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, as used in procurement, are those factors expected to be especially important, significant, and critical in the ultimate source selection decision.

Disposal is the process of removing and disposing of systems, equipment, services, products, facilities, real property, and resources no longer needed for operational use. Within the FAA, disposal is the responsibility of the service organization or program office installing a new

capability. Disposal includes restoration of sites, disposal of government property, recovery of precious metals, and cannibalization of useful assets.

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.

(FAA) Disputes Resolution System is a process established within the FAA for resolving corporate protests of FAA screening information requests and contract awards, as well as contract disputes.

Dominant Business is a controlling or major influence in a market in which a number of businesses are 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.

Dual Operations is the simultaneous operation of legacy and replacement assets at an operational site to ensure uninterrupted service during the transition from an existing capability to a new capability.

Earned Value Management is a management tool to provide timely, accurate, auditable, actionable, and reliable cost, schedule and technical performance information for an investment program to both internal management and external stakeholders. Additionally, it provides early warning measures of variances in program cost, schedule, and technical performance as the basis for corrective management action.

Earned Value Management Determination is the request a service organization or program office submits as the basis for a determination by the Joint Resources Council concerning the application of earned value management to developmental activity by either a contractor or government institution.

Earned Value Management Focal Point is the agency representative who coordinates earned value management activities within the FAA and with other government agencies, industry, and professional associations.

Earned Value Management System is the management process applied to developmental activity to monitor variances in program cost and schedule based on the comparison and reporting of worked performed with work planned.

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 is a system, service, facility, or operational change intended for delivery to a customer or end user.

Enterprise Architecture Products include the operational view family (business) 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 Federal Enterprise Architecture Framework (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, the application view describes interfaces between applications.

Enterprise Architecture Roadmaps are the transition plans for moving the current "as is" architecture to the future "to be" state. Within the FAA, there are enterprise architecture roadmaps for the National Airspace System and for Mission Support Information Technology business systems.

Environmental, Occupational Safety & Health, and Energy Considerations are the federal, state, and local regulations, and FAA orders, specifications, and standards pertaining to environmental and occupational safety and health requirements, and energy and water requirements with which FAA investment programs must comply.

Evolutionary Product Development is the process of limiting the design challenge for a product development cycle by deferring risky technology and immature requirements to later updates. The objective is to minimize risk and facilitate the achievement of cost, schedule, and performance goals, while simultaneously achieving the insertion of low-risk new technology.

Execution Plan is the document that records cost, schedule, and performance parameters for investment programs that do not require an acquisition program baseline (i.e., facilities and variable quantity). The execution plan defines those program cost, schedule, and performance parameters that are to be reported and tracked monthly.

FAA Acquisition System Toolset is the official record of the acquisition management system. It is an information system available via the Internet at http://fast.faa.gov. FAST contains official 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.

FAA Enterprise Architecture defines the operational and technical framework for all capital assets of the agency. It is comprised of the NAS Enterprise Architecture and the Mission Support Enterprise Architecture. The NAS Enterprise Architecture is a repository of architectural views that describe the current (as-is), mid-term, and far-term (to-be) perspectives of the NAS architecture, as well as a strategic roadmap for transitioning from the "as is" to the "to be" architecture. The Mission Support Enterprise Architecture contains the information technology assets and investments needed by agency for business planning and administration. It includes all mission-support applications, systems, policies, and procedures not directly involved in air traffic control.

FAA Enterprise Architecture Board is the group that reviews, assesses, and submits for approval to the Joint Resources Council enterprise architecture products, policy, guidance, and processes. It ensures the FAA enterprise architecture reflects the current and target states of agency operations, standards, systems, and infrastructure.

FAA Enterprise Architecture Board Secretariat is the official who coordinates FEAB meeting dates and agenda and arranges logistics for the meetings. The Secretariat also analyzes FEAB processes and recommends opportunities for improvement; and maintains the official repository for FEAB decision documents, meeting minutes, and assigned action items.

FAA Lifecycle Management Process is the Capital Investment Planning and Control Process of the FAA. Service analysis and investment analysis constitute the select process. Solution implementation is the control process. In-service management is the evaluation process.

FAA Strategic Plan links the long-range vision and goals of the agency directly to the service needs of the aviation community. It also defines top-level performance measures and multi-year performance targets to satisfy those service needs.

Facilities & Equipment is the Congressional appropriation designated for purchase or construction of facilities, systems, hardware and software, services, and other assets necessary to fulfill the mission responsibilities of the agency.

Facility Initiative is an acquisition category associated with new construction, replacement, modernization, repair, remediation, lease, or disposal of manned and unmanned FAA facilities and infrastructure.

Facility Milestones are standard milestones the FAA uses when planning, funding, obtaining, and deploying facilities. They are located on the decisions/reviews/milestones page in the FAA Acquisition System Toolset.

F&E-Funded Capital Assets are those investment initiatives subject to the policies and practices defined in the FAA lifecycle management process. They include any investment initiative or program seeking resources from the facilities and equipment appropriation.

Fee is compensation paid to a consultant for professional services rendered or profit included in a cost plus fee type contract for work performed under the contract.

Field Familiarization is the process by which the operational workforce becomes fully competent to operate and maintain a newly deployed asset or service. Field familiarization occurs at every deployment site and is a condition for declaring full operational capability.

Final Investment Analysis is the phase of the FAA lifecycle management process during which an investment analysis team develops the implementation strategy for the solution selected by the Joint Resources Council for implementation, solicits offers to the industry for the solution and evaluates responses, and plans and baselines the investment program in preparation for the final investment decision.

Final Investment Analysis Plan is the document that defines work activities, resources, schedules, roles and responsibilities, and products required to complete final investment analysis. The plan also specifies exit criteria and a planning date for the final investment decision.

Final Investment Decision is the event at which the Joint Resources Council decides whether it will approve, fund, and baseline a proposed investment initiative.

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 is 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 or reprogrammable to some degree.

First-level Technical Support comprises maintenance of the National Airspace System infrastructure and includes certifying equipment for performing periodic maintenance, restoration, troubleshooting, and corrective activities.

(AMS Policy) Flowcharts within the acquisition management system contain descriptions, approving officials, references, templates, and other aids for each activity within a phase of the lifecycle management process. Generic processes assist service organizations and program offices with product planning, development, procurement, production, testing, delivery, and implementation activities of the lifecycle management process. AMS policy flowcharts are found in AMS building blocks on FAST**.**

(Process) Flowcharts exist within the acquisition management system for representative types of investment program (systems and software, facilities, services) and functional disciplines (e.g., human factors, information systems security, configuration management, integrated logistics support). These flowcharts identify actions and activities the service organization or program office may need to execute to achieve projected capability, value, and benefits. Instructions, templates, best practices, good examples, and lessons-learned are attached to many flowchart activities to assist specialists as they plan and execute what make sense for their investment program.

Functional Analysis is the process that transforms an operational need or market opportunity into a product or service description that supports detailed design.

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

Functional and Performance Requirements Artifact is a key document produced for mission-support operations-funded capital investments. It defines the high-level scope and essential characteristics of a mission-support initiative.

Functional Configuration Audit is the formal examination of the "as-tested" functional

characteristics of a configuration item. The audit determines whether the item has achieved the requirements specified in its functional baseline documentation and identifies and records any discrepancies.

Functional Portfolio Management is the process that oversees investment packages that cut across service organizations to provide fully integrated functional capability for the National Airspace System. The FAA employs functional portfolio management in such areas as weather, surveillance, communications, automation, and navigation.

Functional Requirements define the functions of a product or service or of their components. Functional requirements drive the application architecture of a product or service, while non-functional requirements drive the technical architecture.

Governance Path is a risk-based classification assigned to a mission-support operations-funded capital investment by the Operations Governance Board. Governance Path A and B investments are lower risk and entail fewer planning requirements, while Governance Path C investments are higher-risk and entail more planning requirements.

Governance Path Readiness Decision is the first decision point of the Operations Support Pathway. The Operations Governance Board assigns a governance path to each initiative and assigns an acquisition readiness team (if applicable).

Government and Market Survey Artifact is a key document produced for mission-support operations-funded Capital initiatives. It provides a checklist of important activities for identifying alternatives and procurement options.

Hardware Products are material items and their components (e.g., mechanical, electrical, electronic, hydraulic, pneumatic). Hardware products do not include computer software or technical documentation.

Historically Black Colleges and Universities are institutions determined by the U.S. Secretary of Education to meet the requirements of 34 CFR 608.2 and listed therein.

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

Human Factors Engineering is the application of information on human physical and psychological characteristics to the design of devices and systems for human use.

Implementation Strategy and Planning Document conveys critical, relevant, and meaningful program planning information to the Joint Resources Council as a basis for investment decision-making. The ISPD integrates all aspects of planning for solution implementation and in-service management of a proposed investment program; e.g., acquisition planning, management and control, schedule, systems engineering, solution development and production, physical and functional integration, integrated logistics support, safety and health, security and privacy, test and evaluation, and deployment.

Independent Government Cost Estimate is an unbiased estimate of what a responsible contractor would propose to perform based solely on the contract specification and statement of work. It is developed by the Government independently of any potential vendors. It is a tool to assist in determining the reasonableness or unreasonableness of vendor proposals.

Independent Operational Assessment is an evaluation of new investments before deployment to verify their operational effectiveness, suitability, and safety by an independent operational assessment organization.

Independent Operational Assessment Readiness Declaration is a declaration in writing by the Vice President of the acquiring organization to the Vice President of the Office of Safety and Technical Training that the solution is ready to enter independent operational assessment. The declaration occurs after completion of all site test activities by the contractor and program management office.

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 must 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).

Information Other than Certified Cost and Pricing Data refers to pricing data, cost data, and judgmental information necessary to determine a fair and reasonable price and/or to determine realism. Such data may include the identical types of data as certified cost or pricing data, but without the certification. The data may also include any information reasonably required to explain the estimating process, including, but not limited to: judgmental factors applied and mathematical or other methods used in the estimate and the nature and amount of contingencies included in a proposed price.

Information Systems Security refers to the processes and methodologies involved with keeping information confidential, available, and assuring its integrity. It also refers to access controls that prevent unauthorized personnel from entering or accessing an information system.

Information Systems Security Assessment determines: (1) information security risk factors of an

investment initiative, (2) information security requirements, (3) a rough cost estimate for achieving information security, and (4) a rough estimate of annual operational benefits gained from implementing security requirements.

Information Systems Security Certification and Authorization certifies that an information system is certified and authorized for deployment. It is an entrance criterion for the in-service decision.

Information Technology is the application of computers to store, study, retrieve, transmit, and manipulate data or information, often in the context of a business or other enterprise.

Information Technology Shared Services Committee is an executive-level group that oversees the development and approval of the agency's mission-support information technology strategy. The committee directs, reviews, and oversees implementation of mission-support information technology projects, and evaluates the operational performance of the information technology shared services function.

Information Technology Research & Development Organization coordinates information technology mission-support investment activity across service organizations to ensure alignment with FAA strategic and performance goals, as well as to eliminate redundant activity, service gaps, and duplicate benefits.

Initial Investment Analysis is the phase within the FAA lifecycle management process during which the most advantageous solution to an approved service need is determined. It involves: (1) a market search to determine industry capability, (2) analysis of various alternative approaches for satisfying agency requirements including preparation of an initial business case, and (3) an affordability assessment to determine what the FAA can afford, all in preparation for the initial investment decision.

Initial Investment Analysis Plan is an artifact completed during the later stages of concept and requirements definition. The plan (1) defines the scope and assumptions of initial investment analysis, (2) describes alternatives and their associated rough lifecycle costs, (3) identifies the planned activities of initial investment analysis and describes how tasks will be accomplished, (4) defines outputs and exit criteria, (5) establishes a schedule for completion, (6) defines roles and responsibilities of participating organizations, and (7) estimates the resources needed to complete the work.

Initial Investment Decision is the event at which the Joint Resources Council decides whether to select a solution for implementation and authorize entry into final investment analysis or to reject or return a proposed investment for further analysis.

Initial Operational Capability occurs when site personnel declare a new capability ready for conditional or limited operational use. This occurs after successful installation and checkout, site acceptance testing, and field familiarization. Initial operational capability requires satisfaction of operational requirements, as well as full logistics support and training for technicians and air traffic

specialists.

In-Service Decision is the event at which the decision authority decides whether to accept a product or service for operational use. It occurs during the solution implementation phase of the FAA lifecycle management process. This decision allows deployment activities to begin at each installation site.

In-Service Decision Authority is the official who decides whether to approve a new capability for operational use. The Joint Resources Council designates the in-service decision authority at the final investment decision and may retain authority for the decision.

In-Service Decision Briefing and Action Plan are key artifacts required for the in-service decision. The in-service briefing informs the decision authority concerning status and issues relevant to the in-service decision. The action plan specifies all actions the service organization or program office must complete as a condition of the in-service decision.

In-Service Decision Executive Secretariat is the official who manages the deployment planning process for the Joint Resources Council and administers all activities and artifacts associated with the in-service decision, including preparation of the in-service strategy, briefing, record of decision, and action plan.

In-Service Management Phase is that timeframe in the FAA lifecycle management process extending from the decision to approve a product or service for operational use and continuing until it is retired from service**.**

In-Service Management Planning records the actions and activities the service organization or program office must execute to support the operation and maintenance of deployed assets. It covers such activities as configuration management, preventive and corrective maintenance, training, infrastructure upkeep, and logistics support along with activities to support post implementation reviews and operational analyses.

In-Service Review Checklist is the document the service organization or program office uses to identify and resolve readiness issues before the in-service decision and to obtain concurrence from stakeholder organizations that readiness issues have been or will be resolved.

In-Service Record of Decision is the artifact prepared by the In-Service Executive Secretariat that specifies the decisions and conditions of the in-service decision. It includes as an attachment the plan that specifies all actions the service organization or program office must complete as a condition of the in-service decision.

Integrated Baseline Review is a joint assessment conducted by the program manager and contractor to establish a mutual understanding of the performance measurement baseline for the prime mission contract. This understanding provides the basis for agreement on a plan of action to evaluate the risks and management processes that operate during execution of the contract.

Integrated Logistics Support is the management discipline employed to plan, establish, and

maintain a full lifecycle support system for FAA products and services. It applies to the sustainment and disposal of fielded products and services, as well as new investment programs. The objective is to sustain the required level of service to the end user at optimal lifecycle cost to the FAA.

Integrated Program Management Report is a contractually required report prepared by the contractor that contains performance information derived from the contractor's internal management system. The report provides the status of progress on the contract.

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

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 solicitation 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 Control Documentation is a drawing or other documentation that depicts physical, functional, and test interface characteristics between two or more related or co-functioning items.

Interface Requirements Document is the artifact that specifies the interface requirements to a product or system. It may describe the inputs and outputs of a single product or system or the interface between two products or systems.

Interfaces are the performance, functional, and physical attributes required to exist at a common boundary.

Interim Payment is a form of contract financing for cost-reimbursement contracts where the FAA pays a contractor periodically during the course of a contract for allowable costs it incurs in the performance of the contract. Interim payments issued during the course of a contract 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 Readiness Decision determines whether the solution ConOps, preliminary requirements, architecture products and amendments, and preliminary alternatives are sufficiently mature to warrant entry into investment analysis. The Joint Resources Council makes the decision within context of all ongoing and planned investment activities to sustain and improve service delivery. It ensures proposals for new investment are consistent with overall corporate needs and planning.

Investment Analysis Team is a cross-functional team scaled to the size and complexity of a proposed analysis that is responsible for the conduct of investment analysis. Team membership is flexible depending on the needs of the analysis, but typically includes system engineers, technical experts, logistics specialists, specialty engineers, testers, 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 solutions affect aircraft, airspace, or the public.

Investment Commitment Decision is the final decision point in the Operations Support Pathway. The Operations Governance Board reviews the completed scaled business case and other required artifacts and either approves the initiative to proceed to deployment, recommends revision of planning documents, or recommends that the line of business cancel the initiative.

Investment Increment is a discrete investment activity or program that may provide individual benefits or combine with other investment increments to achieve the benefits of an operational capability.

Investment Initiative is an FAA-sponsored activity to determine the best overall solution to an approved service need or operational shortfall in an FAA Enterprise Architecture roadmap. The FAA Enterprise Architecture Board authorizes the investment initiative at the concept and requirements readiness decision when it approves entry into concept and requirements definition. The initiative becomes an investment program at the final investment decision if approved, funded, and baselined for implementation by the Joint Resources Council.

Investment Management Plan Artifact is a key document produced for mission-support operations-funded capital investments. It provides a timeline for key milestones and change management activities necessary for successful implementation of a mission-support operations-funded investment**.**

Investment Opportunity is an approach identified during service analysis and strategic planning as a means for improving service delivery or obviating a service shortfall. If approved for further analysis by the FAA Enterprise Architecture Board at the readiness for concept and requirements definition decision, the investment opportunity enters concept and requirements definition and becomes an investment initiative.

Investment Planning occurs throughout the AMS lifecycle management process. During service analysis and strategic planning, investment planning focuses is on prioritizes corporate service needs and shortfalls and deciding when to seek solutions within realistic budgetary constraints. Investment

planning during the remainder of the AMS lifecycle management process supports the definition, acquisition, deployment, and lifecycle support of affordable solutions to approved service needs.

Investment Planning and Analysis Office is the organization that leads the preparation of business cases for JRC investment decisions and assists service teams and program offices during service analysis, concept and requirements definition, and investment analysis concerning investment planning and scheduling.

Investment Program is a sponsored, fully funded effort initiated at the final investment decision of the FAA lifecycle management process by the Joint Resources Council in response to a priority agency need. Typically, an investment program is a separate budget line and may have multiple procurements and several projects, all managed within the single program.

Joint Resources Council is the senior investment review board for the FAA responsible for making corporate-level investment decisions based on specified knowledge (decision criteria) the service organization or program office must provide before entry into a decision point. The Joint Resources Council also oversees implementation of FAA investment programs.

JRC Executive Secretariat is the official that supports the FAA Acquisition Executive and manages the investment decision-making process for all F&E-funded investment initiatives.

Key Site is the location at which a new capital asset or service is first tested and evaluated for operational use. This typically entails demonstration that the new asset or service satisfies functional and performance requirements in the program requirements document, and is fully supported and operable by the FAA workforce.

Knowledge-Based Decision-Making involves the use of agreed upon decision criteria and knowledge to facilitate the most suitable outcome for specific decisions.

Legal Coordination with agency counsel is required 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. FAA counsel also advises service organizations and program offices regarding legal issues and represents them in litigation and other legal matters.

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

Lifecycle Acquisition Management Process is a series of knowledge-gathering management phases and decision points that comprise the lifecycle of FAA products and services. It consists of seven phases (research for service analysis, service analysis and strategic planning, concept and requirements definition, initial investment analysis, final investment analysis, solution implementation, and in-service management) and five decision points (readiness for concept and requirements definition, readiness for investment analysis, initial investment decision, final investment decision, and in-service decision).

Lifecycle Cost is the total cost to the FAA of acquiring, operating, maintaining, supporting, and disposing of systems or services over their service life. Lifecycle cost includes total investment costs, development costs, and operational costs and involves all appropriations (i.e., Research, Engineering, and Development; Facilities and Equipment, and Operations).

Line of Business is a term used to characterize the major organizations of the FAA having roles and responsibilities in the FAA Acquisition Management System. The lines of business within FAA 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.

Line of Business Portfolio Management requires each line of business and staff office to oversee, coordinate, and integrate the service activity of offices within their organizations to achieve the highest possible overall contribution to agency strategic goals and targets.

Logistics Manager is the service team or program office member who plans, establishes, and maintains an integrated support package for the lifecycle of FAA products and services that are the responsibility of the team or office.

Maintenance Planning is the process conducted to determine and plan hardware and software maintenance concepts and packages for the lifecycle of a product or service.

Maintenance Support Facility consists of the permanent or semi-permanent real property assets required to support a product over its service life. Associated management activity includes studies to define types of facilities or facility improvements, locations, space needs, environmental requirements, real estate requirements, and equipment.

Market Survey has 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, determine competition and capabilities, and estimate costs. In terms of the lifecycle management process, market surveys during concept and requirements definition and initial investment analysis help identify potential material and nonmaterial solutions to a service need.

Measurement and Analysis is a management and control process applied throughout the lifecycle of an investment initiative or operational asset to assess progress, forecast performance, determine status, and define corrective action. Measurement and analysis provides information and visibility toward accomplishing program goals and supporting management information needs.

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

Memorandum of Agreement 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 acquires

services, equipment, personnel, or facilities from a contractor for the direct benefit or use of the FAA, the acquiring organization must use a procurement contract.

Memorandum of Understanding is a written document executed by the parties that establishes policies or procedures of mutual concern. It does not require either party to obligate funds and does not create a legally binding commitment.

Mike Monroney Aeronautical Center houses the FAA Logistics Center, FAA Academy, and Enterprise Services Center. The Logistics Center establishes and maintains supply support for NAS systems. The Academy provides learning solutions for the FAA and global community. The Enterprise Services Center provides an array of information technology services and financial management for a wide range of federal agencies.

Minority Educational Institutions are 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-Support Capital Investments are agency business-system initiatives and other non-NAS investment opportunities included in the Mission Support Enterprise Architecture, as well other investment opportunities not within any FAA architecture but deemed within scope of the Operations Governance Board.

Mission-Support OPS-Funded Process establishes policy and guidance for all aspects of acquisition management for the procurement of mission-support operations-funded investment initiatives.

Multi-Year Contracts are contracts covering more than one year but not in excess of five years of requirements. Multi-year contracts cover total contract quantities and annual quantities for a particular level and type of funding, as displayed in a five-year development plan. Each program year is annually budgeted and funded. At the time of award, funds need only to have been appropriated for the first year. Multi-year contracts protect the contractor 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. It permits the Executive Branch more than one year to obligate the funds. The term does not apply to two-year or three-year funds that cover only one fiscal year requirement.

NAS Change Proposal is a proposed change to a configuration management baseline of a National Airspace System asset submitted to the appropriate configuration control board using the approved NCP form.

NAS Concept of Operations is a controlled document that describes and specifies the operational capabilities of National Airspace System over time.

NAS Configuration Control Board is the body that ensures traceability of all NAS configuration

items to specific service teams and program offices. The Board also controls changes to NAS systems and associated documentation not assigned to a lower-level configuration control board or not identified for control by the Joint Resources Council.

NAS ConOps Change Development and Decomposition Process is the means by which (1) the agency modifies the NAS Concept of Operations to incorporate new service concepts, (2) the NextGen Management Board and Joint Resources Council approve new operational capabilities, and (3) new capabilities are decomposed into NAS operational requirements, functional and performance requirements, and investment increments.

NAS Operational Requirements Document records National Airspace System operational requirements decomposed from the narrative of operational improvements and operational sustainments in the NAS Concept of Operations.

NAS Requirements Document is the top-level source for programs to use when deriving their respective requirements for the National Airspace System. The document defines requirements without constraining technical design alternatives, while also identifying global design principles necessary to evolve the NAS. The document supports National Airspace System design, enterprise architecture engineering, and acquisition activities for new and upgraded systems, as well as routine changes to operational equipment.

NAS Segment Implementation Portfolio Management is the process that oversees investment portfolios that cut across service organizations to provide fully integrated operational capabilities for the National Airspace System. Examples include 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.

NAS Systems Engineering Organization works with service organizations and program offices in the conduct of systems engineering activities throughout the AMS lifecycle management process. The organization also leads corporate-level service analysis for the National Airspace System, and manages the NAS Architecture.

NAS Technical Documentation is the set of documents that describe technical requirements of the National Airspace System.

National Airspace System is the airspace, navigation facilities, and airports of the United States along with their associated information, services, rules, regulations, policies, procedures, personnel and equipment. It includes components shared jointly with the military.

National Aviation Research Plan describes the FAA research, engineering, and development portfolio. This portfolio focuses RE&D investments on the operational needs of the agency and flying public and aligns with national priorities.

Need Assessment is the first phase of the Operations Support Pathway. During this phase, the line of business submits an operations support pathway intake form to the Operations Governance

Secretariat who uses it to conduct a risk assessment and make a Governance Path recommendation to the Operations Governance Board.

Neutral means an impartial third party, who serves as a mediator, fact finder, or arbitrator, or otherwise functions to assist parties resolve 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 must have no official, financial, or personal conflict of interest with respect to the issues in controversy, unless the neutral person fully discloses such interest in writing to all parties and all parties agree that the neutral person may serve.

New Investment is an acquisition category associated with the research, design, development, and implementation of a new FAA product, system, or service. A new investment typically introduces new capabilities or provides new or improved functionality.

NextGen Implementation Plan is an executive-level outline of activities to move the National Airspace System from its current state to the future of air traffic control. The FAA publishes the plan annually to reflect prior-year accomplishments and new commitments.

NextGen Lifecycle Integration Organization coordinates service analysis activity across service organizations to ensure alignment with FAA strategic and performance goals and to eliminate redundant activity, duplicate benefits, service gaps, and service overlap. The organization leads planning and activities for concept and requirements definition, and develops, maintains, communicates, and supports enterprise-wide planning artifacts that describe the lifecycle of the National Airspace System.

NextGen Management Board is an executive-level group that oversees implementation of NextGen investment initiatives. The Board resolves policy issues necessary for successful implementation of NextGen capabilities, and approves updates to the NAS Concept of Operations and NAS Segment Implementation Plan.

NextGen Organization manages planning and execution of research activity within the FAA, as well as coordinate planning and development of the next generation air traffic control system.

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

Non-Developmental Item is an item previously developed for use by federal, state, local, or foreign government and for which no further development is required.

Non-Materiel is an acquisition category that encompasses engineering studies and analyses, development of procedures, airspace changes, standards for avionics development, process reengineering, or other types of intellectual property development. These activities are not stand-alone investment initiatives when they are an element of and included within the acquisition of a product, system, or service.

Non-Materiel Solution is a solution to an FAA capability shortfall identified during concept and

requirements definition or investment analysis that is operationally acceptable to users, requires no development or production activity, and is obtainable 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 generally incurred on a one-time basis. They include the cost of such items as plant or equipment relocation, plant rearrangement, special tooling and special test equipment, pre-production engineering, initial spoilage and rework, and specialized workforce training.

Obtain the Solution is a term that includes all tasks and activities necessary to procure and deploy the key products or services of an investment program to achieve projected benefits within approved cost and schedule baselines. The term includes such activities as contract award, contract administration, program management, resource management, risk management, systems engineering, logistics support, test and evaluation, and site acquisition and adaptation. It may involve developing operational procedures and standards; obtaining physical, personnel, and information security; modifying the physical infrastructure; and coordinating collateral action by the aviation industry.

(FAA) Office of Dispute Resolution for Acquisition is an independent organization within the FAA reporting to the FAA Chief Counsel staffed with dispute resolution officers with the authority to adjudicate contract disputes between government officials and commercial organizations or individuals.

Operations Governance Board is the executive body that reviews, approves, oversees, and informs the Joint Resources Council and other agency executive boards and organizations concerning mission-support operations-funded capital investments.

Operations Governance Board Secretariat manages the mission-support operations-funded process in support of the Operations Governance Board. The Secretariat receives and reviews initial intake forms; conducts preliminary reviews to recommend a governance path to the OGB; coordinates meeting dates, agenda, and logistics; and maintains the official repository of OGB decision documents, records of decision, meeting minutes, and action items.

OMB Information Technology Dashboard is a database that provides detailed information on major information technology investment spending at federal agencies, including ratings from the Chief Information Officers that reflect the level of risk facing each agency's investments.

OMB Major Information Technology Business Case describes the justification, planning, and implementation of an individual capital asset within the information technology investment portfolio. The business case serves as a key artifact of the agency's enterprise architecture and capital planning investment control process.

Operation and Retirement is the fifth and final phase of the Operations Support Pathway. It starts after a product or service begins operational use and continues for as long as the product or service

is in use. It ends when the operational asset is retired from use.

Operational Analysis is the process by which the FAA evaluates the ability of in-service assets to provide the services needed by users and customers. Operational analysis consists of gathering and analyzing reliability, maintainability, and availability data; managing supportability information to determine whether an operational asset can continue to provide the expected service for its intended life; monitoring cost data to ensure actual support costs are in line with planned costs; and managing asset viability against stakeholder needs.

Operational Assets are those assets used in the conduct of operations by the FAA. Examples include the systems, procedures, information, facilities, data, and infrastructure used to provide air traffic services, as well as all mission-support and business assets necessary to support the day-to-day operation of the agency.

Operational Baseline is the approved technical documentation that defines and represents installed operational hardware and software.

Operational Capability is a grouping of operational improvements and operational sustainments necessary to achieve specific service outcomes and benefits.

Operational Capability Business Case defines the rough costs and benefits of a proposed operational capability. It is the key decision document for establishing a new operational capability.

Operational Capability Portfolio is the array of investment increments which when deployed and integrated will achieve the performance and functionality specified for the operational capability. The NextGen Management Board establishes operational capability portfolios to achieve priority NAS performance and operational goals subject to concurrence by the Joint Resources Council.

Operational Capability Portfolio Manager is the individual responsible for successful implementation and deployment of an operational capability and the achievement of associated performance goals and benefits.

Operational Effectiveness measures how well a deployed solution satisfies its intended service need and performance requirements.

Operational Improvement is a change to FAA operational assets that improves one or more national airspace services.

Operational Readiness refers to the condition whereby local site personnel have demonstrated the ability to operate and maintain a newly fielded capability in the National Airspace System fully.

Operational Readiness Date is when site operational personnel are satisfied that a fielded solution can support full and sustained air traffic operations. The milestone occurs after joint acceptance and inspection when the approving site official signs the facility log designating the new solution as the primary means for air transportation operations. Legacy assets usually remain powered on in backup mode for approximately 30 days and then removed.

Operational Requirements are those statements that identify the essential capabilities, associated requirements, performance measures, and the process or series of actions needed to achieve new service capabilities or to address service deficiencies, evolving threats, emerging technologies, or cost improvements.

Operational Suitability is the degree to which a new product or service is ready for operational use with consideration given to the following factors: reliability, availability, compatibility, transportability, interoperability, usage rates, maintainability, safety, human factors, supportability, and logistics.

Operational Sustainment is a discrete activity to sustain the operational use of one or more current NAS services.

Operational Test determines whether a new or modified product or service is operationally effective and suitable for use in the National Airspace System and whether the existing infrastructure is ready to accept the product or service.

Operations and Maintenance Appropriation is one-year funding used primarily for operating and maintaining fielded assets in a state of readiness including the following: personnel salaries, training, repair of facilities and equipment, travel and transportation, procurement of services, supplies, equipment, communications, recruiting, and depot maintenance.

Operations Governance Board is the oversight authority for mission-support operations-funded capital investments and the Operations Support Pathway process.

Operations Support Pathway is the process followed by mission-support operations-funded capital investments to document the investment rationale, produce the required artifacts, and achieve an Operations Governance Board investment decision.

Operations Support Pathway Intake Form is the initial document produced for mission-support operations-funded capital investments. It includes basic program information. The acquiring organization submits the form to the Investment Management Process Division (AAP-200) and OGB Secretariat at least 21 days before the commitment of funding to any contract, task order, or inter-agency agreement in support of the proposed project.

Other Transaction, as referenced in Public Law 104-264, October 9, 1996, is a transaction that does not fall into the category of procurement contracts, grants, or cooperative agreements.

Owners within context of the Air Traffic Organization are the President, Congress, flying public and American taxpayer.

Packaging, Handling, Storage, and Transportation are the resources, processes, procedures, design considerations, and methods to ensure all subsystems, 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 is 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. Supportability parameters, manufacturing process variability, and reliability are all performance measures.

Performance Measurement Baseline is a time-phased resource plan against which the service organization or program office measures the accomplishment of authorized work. The baseline includes a schedule of all required work, the budgeted cost for this work, and the performance parameters critical to meeting the service need the investment program is seeking to satisfy.

Personally Identifiable Information is information that an entity can use on its own or with other information to identify, contact, or locate a single person, or to identify an individual in context.

Personnel Security consists of the standards and procedures used 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 national security.

Physical Configuration Audit is the formal examination of the "as-built" configuration of a configuration item against its technical documentation to establish or verify the product baseline. The physical configuration audit is complete when the service team or program office corrects any discrepancies resulting from the audit.

Physical Security is the protection of personnel, hardware, software, networks, and data from physical actions and events that could cause serious loss or damage to an enterprise, agency, or institution. This includes protection from fire, flood, natural disasters, burglary, theft, vandalism, and terrorism.

Portfolio-Level Agreement defines the objectives, scope, schedule, deliverables, measures of success, and resources required for completion of a portfolio of projects.

Portfolio Management is the centralized management of one or more portfolios of investments that enable executive management to meet organizational goals and objectives through efficient decision-making on portfolios, programs, and operations

Portfolio Management Criteria are standard criteria used within the FAA for selecting, controlling, and evaluating investment portfolios (see AMS Section 1.2.4.1.2 Portfolio Management Criteria)

Portfolio Manager is the individual responsible for management and oversight of an investment portfolio designed to achieve specific operational capabilities.

Post Implementation Review is a review conducted at an early deployment site to ensure user needs are satisfied, identify any systemic problems that must be corrected, and determine whether

cost, schedule, and benefit objectives are being achieved.

Post Implementation Review Quality Officer is the official responsible for working with service organizations and program offices when planning, conducting, and reporting the results of post-implementation reviews on designated operational assets.

Preplanned Product Improvement is a planned future improvement to a developmental asset that enhances the future application of the projected technology. It includes improvements to operational assets that go beyond the current performance envelope to achieve a needed operational capability.

Prescreening is the evaluation of case files for impacts on safety, air traffic services, other intangible benefits, as well as cost/benefit implications, to determine whether the acquiring organization should implement a proposed change.

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

Primary Engineer or Principal Consultant is the individual held responsible for the overall performance of a service, including what others accomplish under separate or special service contracts.

Procurement Strategy Meeting is a meeting of organizations having an inherent interest in a contemplated procurement. The purpose is to reach a consensus on the course of an acquisition and to obtain the necessary approvals to proceed.

Procurement Team is the contracting officer, legal counsel, program officials, and other supporting staff responsible for the successful completion of a specific procurement.

Product Baseline is approved documentation describing all the necessary functional and physical characteristics of a configuration item and the selected functional and physical characteristics designated for production acceptance testing. The product baseline of a configuration item may also include the actual equipment and software.

Program Decision-making within the acquisition management system requires the corporate-level decision-makers to establish and fund investment programs and service organizations or program offices to implement and manage them.

Product Demonstration Decision is the event that determines whether product design is stable and whether it satisfies all contract requirements.

Product Team or Service Team is a chartered group of professionals with the mission, resources, leadership, and cross-functional membership necessary to execute an assigned element of a service organization’s mission.

Production Decision is the event that determines whether a supplier can produce a product that meets contract cost, schedule, and quality targets.

Program Management Plan defines how the service organization or program office will execute

the implementation strategy approved by the Joint Resources Council at the final investment decision. The intent is to ensure the acquiring organization understands and plans the full scope of the implementation effort including agreements with key supporting organizations (e.g., logistics, test, information security, safety, systems engineering) that will provide resources or otherwise contribute to successful program implementation.

Program Requirements Document establishes the operational framework and top-level performance and functional requirements that must be satisfied by the solution to a service need. The document is first prepared in the concept and requirements definition phase of the AMS lifecycle management process and finalized before the final investment decision.

Program Work Breakdown Structure is a common framework containing uniform work activity definitions for use by the acquisition management workforce when planning program implementation activities and estimating associated costs. Work activity associated with each investment program must define, obtain, and support over the service life the air traffic control and other services specified in the program requirements document and needed by the aviation industry and flying public.

Protest is a written, timely objection submitted by a protester regarding 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.

Quality Assurance is the systematic monitoring and evaluation of the various aspects of a product, service, or facility to ensure that program outputs satisfy quality requirements.

Rational Basis consists of 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.

Real Estate Contracting Officer is a trained and warranted official who contracts for real property within the FAA.

Real Estate Management System is the data repository for all real property assets owned or leased by the FAA.

Real Property is:

(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.

Realism refers to the determination that a proposed price is not so low that contract performance is put at risk from either a technical or cost perspective. Realism analysis determines whether proposed costs and/or prices are realistic for the work to be performed, reflect a clear understanding of the requirements, and are consistent with the various elements of the offeror's technical proposal. Realism analysis may be performed as cost realism, reviewing each element of cost, or price realism where only the price is reviewed in terms of potential performance risk.

Reasonableness is a price that, in its nature and amount, does not exceed that which would be incurred by a prudent person in the conduct of competitive business. Reasonableness is the same as a "fair and reasonable" price.

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 of the output or product, such as labor and materials.

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

Requirements specify the conditions or capabilities the agency needs or wants. They form the basis for a contract, standard, specification, or other formally imposed document.

Research and Development Appropriation are the funds provided by the Congress to support designated and approved research, engineering, and development work by the FAA.

Research, Engineering, and Development Advisory Committee coordinates with the lines of business to develop the FAA RE&D portfolio each year. It also reviews status of the non-NextGen-funded portion of the RE&D portfolio each year.

Research, Engineering, and Development Executive Board is the group that develops the RE&D portfolio each year using strategic planning in the National Aviation Research Plan as a guide. The National Aviation Research Plan links FAA research activities to broader strategic planning in the NAS ConOps, NextGen Implementation Plan, NAS Architecture, and Joint Planning Development Office.

Research, Engineering, and Development Portfolio is the group of projects developed each year by the RE&D Executive Board and reviewed by the RE&D Advisory Committee proposed for funding and execution. The portfolio consists of systematic studies to gain knowledge or understanding of concepts, products, or procedures that could potentially benefit the aviation community such as research related to materials and human factors.

Research, Engineering, and Development Process governs selection and execution of the RE&D portfolio. Research activities within the portfolio inform the NAS enterprise architecture and concept maturity and technology development activities, but do not lead directly to an investment initiative**.**

Reliability, Maintainability, and Availability are three attributes that collectively affect both the utility and the lifecycle cost of a product or system. Reliability is the probability of failure-free performance of an item over a specified timeframe. Maintainability is the ability to perform a successful repair action within a given time. Availability is the quality of being ready for use.

Research for Service Analysis contributes to early phases of the AMS lifecycle management process. It consists primarily of (1) research, engineering, and development activity to gain knowledge or understanding of concepts, products, or procedures that could potentially benefit the aviation community, and (2) concept maturity and technology development directed toward the production of useful materials, devices, systems, and methods, as well as advance the maturity of new concepts.

Resources refer to a stock or supply of money, materials, staff, and other assets that a person or organization can use to function effectively.

Risk Management Process consists of activities that identify, classify, mitigate, monitor, and manage potential risks to minimize the negative impact they may have on an organization or operation.

(FAA) Safety Management System is a mandatory risk management process that program offices use throughout the AMS lifecycle to assess, define, and manage safety risk in the National Airspace System.

Safety Risk Management is the assessment of safety risk to the National Airspace System, including documentation of changes and defining strategies for monitoring the safety risk associated with changes to or replacement of existing NAS systems.

Safety Risk Management Guidance for System Acquisitions contains detailed guidance on how to conduct required safety analyses for system acquisitions that potentially affect safety risk in the National Airspace System when fielded.

Scaled Business Case Artifact is a key document produced for mission-support operations-funded capital investments. The artifact summarizes the business case analysis completed during the Operations Support Pathway process and includes a lifecycle cost estimate. The Operations Governance Board makes an investment decision based, in large part, on the strength and completeness of the scaled business case.

Screening is the process of evaluating submittals from offerors to determine (1) which offerors/products are qualified to meet a specific type of supply, (2) which offerors are most likely to receive award, or (3) 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 an award.

Screening Information Request is any request made by the FAA for documentation, information, or offer for the purpose of determining which offeror provides the best value solution for a particular procurement.

Second-level Engineering Support provides engineering support of the National Airspace System infrastructure and includes defining solution performance standards, developing and publishing procedures, designing solution improvements, and providing support to first-level technical support personnel.

Security Authorization is the process that assesses fielded products and services against mandatory security requirements as a basis for receiving a successful in-service decision.

Security Risk Management is the process whereby service organizations and program offices identify and reduce to acceptable levels all threats and vulnerabilities that could result in injury to personnel, loss or destruction of critical assets, or disruption of FAA information systems. Security risk management applies to all agency investments including mission-critical NAS operational systems and mission-support and administrative systems.

Seismic Safety Legislation mandates that Federal agencies follow national and local seismic building codes, whichever provides the greatest margin of safety, when constructing new buildings or modifying existing buildings.

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

Senior Investment Review Board is the group of top-level managers within the FAA that makes corporate-level resource decisions, including authorization and funding for investment programs and changes to the enterprise architecture. The board also oversees execution of agency investment programs and authorizes changes in scope and / or funding when cost, schedule, or performance baselines cannot be achieved. Within the FAA, the Joint Resources Council is the senior investment review board.

Sensitive Unclassified Information is a broad category of information that includes material covered by such designations as For Official Use Only, Law Enforcement Sensitive, Sensitive Homeland Security Information, Sensitive Security Information, and Critical Infrastructure Information.

Service Analysis is the activity in the FAA lifecycle management process that determines the capacity of agency assets to satisfy existing and emerging demands for services. Each FAA line of business conducts service analysis within their domain of responsibility.

Service Analysis and Strategic Planning is that portion of the FAA acquisition management process that determines what capabilities must be in place now and in the future to meet agency goals and the service needs of customers. Results are captured in the “as is” and “to be” states of the FAA enterprise architecture, as well as in the roadmaps for moving from the current to the future state.

Service Management within context of the acquisition management system is the application of agency resources (investment, research, and operations) to the cost-effective delivery of safe and secure services to its customers. The FAA accomplishes delivery and management of these services through service organizations, which are responsible and accountable for service delivery throughout the service life of agency products and services.

Service Organizations plan and manage resources as assigned by the Joint Resources Council to deliver services within their area of responsibility. Within the FAA, service organizations include any service unit or team, program office, directorate, or other organizational entity engaged in the delivery and sustainment of air traffic services, safety, security, regulation, certification, operations, commercial space transportation, airport development, or administrative services and assets.

Service Shortfall is a verified inability of the FAA to provide the services needed by its customers and users. Lines of business use service performance data and analyses of current and projected customer service needs to identify service shortfalls within their domain of responsibility. Aviation research by NASA and other industry and government organizations may also identify emerging service shortfalls or technological opportunities for improving service delivery.

Service Team Leader is the individual who guides, coaches, facilitates, and serves as spokesperson for service team members in the conduct of activity to execute assigned responsibilities.

Service Team Logistics Manager is the individual who supports the service team or program office throughout the AMS lifecycle management process to achieve efficient and effective logistics support for products and services throughout their service life.

Service Team is chartered group of management and technical specialists responsible for planning, obtaining, and managing over their service life the products and services assigned by the Joint Resources Council or the line of business.

Shortfall Analysis by a service organization or program office establishes the foundation for understanding a service shortfall or new opportunity for improving service delivery, as well as the impact on the users and customers of FAA services. The shortfall analysis is the basis for approving a service need or operational capability for inclusion in the FAA enterprise architecture and its roadmaps.

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 generally purchased on a fixed price basis.

Single-Source Contracting awards a contract, without competition, to a single supplier of products or services.

Site Acceptance Test confirms that an acquired solution meets all contract requirements and interfaces correctly with the environment in which it will operate.

Site Restoration is the process of returning a site to its original condition after the FAA no longer needs it for air traffic or other services.

Small Business, including its affiliates, is an independently owned and operated business that is not dominant in producing the products or performing the services the FAA is purchasing, 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 a procurement exclusively for participation by small businesses.

Small Disadvantaged Business is 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 must 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 must 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 must 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 must presume that socially and economically disadvantaged entities also include Indian tribes and Native Hawaiian organizations.

Socially Disadvantaged Individuals are people 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.

Software Enhancement is an acquisition category that includes additions or modernizations to the software of systems previously fielded and operating within the FAA. A software enhancement typically introduces new capabilities or provide improved functionality to an existing asset and has minimal impact to hardware or the acquisition of hardware.

Solution, as used in the FAA Acquisition Management System, is a generic term meaning the assets or capability obtained (procured) and deployed to satisfy a priority service need or to remedy an operational shortfall in the FAA enterprise architecture. The solution may consist of systems and equipment, facilities, infrastructure, services, procedural and process changes, or any combination of these or other assets necessary to satisfy the service need or capability shortfall.

Solution ConOps is the artifact that defines how a solution will operate in its intended service environment. It defines the roles and responsibilities of key participants (e.g., controllers, maintenance technicians, pilots), explains operational issues that system engineers must understand when developing requirements, identifies procedural issues that may lead to operational change, and establishes a basis for identifying alternative solutions and estimating their likely costs and benefits.

Solution Development is the third phase of the Operations Support Pathway. The line of business and acquisition readiness team refine and update required artifacts, address any Operations Governance Board action items given at the Business Case Decision, and finalize their procurement

strategy.

Solution Implementation is the phase of the AMS lifecycle management process that begins after the final investment decision when Joint Resources Council establishes an investment program and assigns responsibility to a service organization. Solution implementation ends when the new capability goes into operational service at the last deployment site.

Solution Planning specifies how the service organization or program office will obtain and deploy the products and services of an investment program during solution implementation and support them throughout their service life. AMS planning and control documents (i.e., implementation strategy and planning document, program management plan, and program work breakdown structure) specify solution planning.

Solution Provider is the organization (e.g., service organization, program office, or regional office implementing a construction program) responsible for an assigned investment program and for providing the products or services needed to satisfy agency requirements.

SOW Templates located on the FAA Acquisition System Toolset contain model statement of work paragraphs tailored for specific types of investment initiatives for use by the acquisition workforce when preparing screening information requests or contract statements of work.

Source Evaluation Team is the group of subject-matter experts responsible for all aspects of obtaining and evaluating vendor offers for agency contracting initiatives.

Source Selection Official is the authority responsible for source selection and contract award to the vendor offering best value to the government for a specific investment opportunity. This responsibility includes ensuring the competence of the source evaluation team and soundness of the source selection criteria, process, and evaluation plans.

Specification refers to a set of documented requirements that a product or service must satisfy. A requirement specification is a documented requirement or set of requirements to be satisfied by a given material, design, product, or service. A functional specification defines the functions a solution must provide. A design or product specification describes the features of either a designed solution or final produced solution.

SPIRE is the web-based management tool used to define and track the status of FAA investment programs. SPIRE is the acronym for Simplified Program Information and Evaluation.

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

Stakeholder organizations as used within the acquisition management system refer to any user or customer organization within and outside the FAA having a vested interest in the products and services of an investment program. Examples include the operators and maintainers of deployed assets, system safety and information systems security specialists, human factors engineers, and training and logistics support organizations.

Standard Program Milestones are those milestones used by service organizations and program offices when planning, executing, and reporting progress on agency investment programs, including entries in the OMB Major IT Business Case (designated programs only) and acquisition program baseline or execution plan. The link to standard milestones for system and facility investment programs are located in FAST on the decisions, reviews, and standard milestones page.

Standard Program Performance Measures are those measures used by service organizations and program offices to assess progress, forecast performance, determine status, and define corrective action for agency investment programs. The status of these measures serves as early warning indicators of program issues before they develop into major problems. The following are the major categories of program performance measures: financial, schedule, technical, resources, program management assessment, and external interests.

Standard Selection Criteria for the initial investment decision are lifecycle costs, benefits, risk, benefit-to-cost ratio, consistency with the FAA enterprise architecture, and impact on FAA strategic goals.

Strategic Sourcing is 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.

Statement of Work is a document that defines program-specific activities, deliverables, and timelines for a vendor providing services to the FAA.

Subject-Matter Expert is an authority in a particular area or topic.

Supply, as used in the context of service analysis, is the existing or projected ability to provide services to customers based on information from field organizations that operate and maintain the National Airspace System, the aviation community, and planned investments in the enterprise architecture.

Supply Chain Management is the oversight of materials, information, and finances as they move in a process from supplier to manufacturer to wholesaler to retailer to consumer. Supply chain management involves coordinating and integrating these flows both within and among companies.

Supply Support consists of the management actions, procedures, and techniques used to determine requirements, acquire, catalog, track, receive, store, transfer, issue, and dispose of items of supply. This includes provisioning for initial support, maintaining asset viability, and replenishing spares.

Support Contracts Review Board is the group that evaluates all support services procurements valued at $10 million or more.

Supportability is the degree to which product design and planned logistics resources meet product use requirements.

Support Equipment consists of all equipment (mobile or fixed) needed to support maintenance of a

product or service. Support equipment includes associated multi-use end-items, handling and maintenance equipment, tools, metrology and calibration equipment, test equipment, and automatic test equipment. It also 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 support equipment lifecycle.

Support Services Contract is an acquisition category that includes contracts associated with procuring technical, engineering, scientific, professional, management and administrative expertise, advice, analysis, studies, or reports. Support services contracts follow contracting guidance in FAST.

Sustainment consists of those activities associated with keeping fielded products operational and maintained. Sustainment also applies to the planning, programming, and budgeting for support of fielded products, referred to as sustainment funding.

System Milestones are those milestones used by service organizations and program offices when planning, executing, and reporting progress on investment programs that are acquiring systems for air traffic control and other agency services. The link to standard milestones for systems are located in FAST on the decisions, reviews, and standard milestones page.

System Safety Assessment integrates the results of various analyses to verify the overall safety of a solution or system. The assessment determines whether the investment program has achieved qualitative development assurance levels for systems, equipment, hardware, and software, as well as quantitative safety requirements defined in the functional hazard assessment and preliminary system safety assessment.

System Safety Program consists of the activities applied during all phases of the AMS lifecycle management process to identify safety risks and devise and implement ways to eliminate or control risks to an acceptable level.

Systems Engineering Manual provides a framework for implementing systems engineering across the FAA. The manual defines the preferred systems engineering processes to be followed throughout the AMS lifecycle management process; provides effective systems engineering methods and tools; identifies competency areas for the practice of systems engineering; defines system engineering best practices used to support program management activities; and acts as a reference for the development of training classes within the FAA.

Technical Data is 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 sustain a product or service over its lifecycle. While computer programs and related software are not technical data, documentation of these programs and related software are technical data. Financial data or other information related to contract administration are not technical data.

Technical Leveling is the act of helping an offeror bring its proposal/offer up to the level of other proposals/offers through successive rounds of communication, such as pointing out weaknesses

resulting from an offeror's lack of diligence, competence, or inventiveness in preparing their proposal.

Technical Opportunity exists when a product or capability not currently used in the National Airspace System has the potential to enable the FAA to perform its mission more safely, efficiently, or effectively.

Technology Refreshment is an acquisition category intended to keep fielded products, systems, and services maintained and operational. It does not result in new or improved functionality, and any new technology introduced is strictly incidental. Service-life extension and replacement-in-kind are types of technology refreshment.

Technical Review Board is the group that oversees the NAS Architecture in support of the FAA Enterprise Architecture Board. It works with service organizations and program offices to evaluate new operational improvements and sustainments and to time-phase priority opportunities within the NAS architecture roadmap.

Technical Transfusion is the disclosure by the FAA of technical information from one vendor submittal that results in the improvement of another submittal.

TechStat Reviews assess underperforming investment programs. The review is an in-depth examination of program performance data from the OMB Information Technology Dashboard, SPIRE, associated earned value management data, and program management and control data. The TechStat review results in a corrective action plan to improve program execution within the approved program baseline or execution plan or results in other actions if the program is unlikely to improve as baselined.

Termination for Convenience is a procedure that may apply to any FAA contract, including multi-year contracts. As contrasted with cancellation, termination can be effected at any time during the life of a 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 it terminates a contract. In the case of a multi-year contract terminated before completion of current fiscal year 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 completed end items.

Test and Evaluation is an activity conducted to provide essential information in support of investment decision-making; assess technical and investment risk; verify the attainment of technical performance specifications and objectives; and verify and validate that deployed systems, solutions, and capabilities are operationally effective and suitable for their intended use.

Test and Evaluation Master Plan describes the strategy and the scope of the test program and is

the primary test management document for investment programs. The TEMP describes planning and preparation activities for the test program, the testing to be accomplished, organizational responsibilities, and how program offices will report test results. It also documents the methodologies that will evaluate the effectiveness and suitability of systems, services, and operational capabilities against program and operational requirements. Testing described in the TEMP also supports investment and program decisions.

Total Estimated Potential Value is 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 not established as contract line items, 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 is activity that analyses, designs, develops, implements, and evaluates training artifacts necessary to operate and maintain the solution. This includes needs analyses, job and task analyses, individual and team training, resident and nonresident training, on-the-job training, job aids, and logistic support 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 is one of a quantity of items (products, parts, etc.)

User within the acquisition management system is a term that refers to an internal user of a product or service such as air traffic controllers or maintenance technicians.

Validation is confirmation that the products and outputs of an investment program will fulfill their intended purpose when placed in their intended environment. Validation may address all aspects of a product or output in any of its intended environments such as operation, training, manufacturing, maintenance, or support services.

Variable Quantity is an acquisition category that includes insertions, modernizations, or additions to quantities of systems or subcomponents previously fielded and in operation within the FAA. The intent is to keep fielded products, systems, and services maintained and operational. This acquisition category does not result in new or improved functionality

Verification is confirmation that selected work products meet their specified requirements. This includes verification of the final product (system, service, facility, or operational change) as well as

intermediate work products against all applicable requirements. Verification is inherently an incremental process. It begins with initial requirements, progresses through subsequent work products, and culminating in verification of the completed final product.

(FAA) Verification & Validation Guideline is the official guidance document whose intent is to ensure the service organization or program office builds the right product (validation) and the product is built right (verification - according to specifications). The guidelines specify the key work products of each phase of the lifecycle management process that the service organization or program office must verify and validate for each AMS decision point.

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.

William J Hughes Technical Center is an FAA facility where the full spectrum of air transportation systems are tested and evaluated. The Center develops scientific solutions to safety challenges confronting air traffic control, and evaluates integrated solutions for the modernization and sustainment of the National Airspace System.

Work Products in various forms represent, define, or direct the final output or product of an investment program, which may be a system, service, facility, or operational change. Work products can include concepts of operation, processes, plans, procedures, designs, descriptions, requirements, specifications, models, prototypes, contracts, invoices, and other documents.

Work Breakdown Structure is a hierarchical decomposition of the work a service organization or program office must perform to achieve an agency objective or operational capability. It includes work activities internal and external to the FAA. Each descending level of the work breakdown structure represents an increasing definition of the work.

(FAA Standard) Work Breakdown Structure is the official work breakdown structure of the Federal Aviation Administration. It is organized according to the phases of the AMS lifecycle management process (service analysis through in-service management), and it includes all work activities that may need to be planned, costed, and completed as an investment opportunity traverses the lifecycle management process. Section 3 of the FAA Standard Work Breakdown Structure specifies the program WBS for investment programs.

Appendix D: Acronyms Revised 1/2018

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 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
TEMP	Test and Evaluation Master Plan
U.S.C.	United States Code

Appendix E: External Authorities

This table highlights selected government-wide laws, regulations, executive orders, and other directives that affect acquisition programs. In some instances, FAA-unique implementation of these authorities is outlined in the Acquisition Management System. In most cases, however, implementation is through means other than the Acquisition Management System. This table is not all inclusive. Full text of the authorities may be viewed from the following websites: http://www.archives.gov or http://uscode.house.gov

The appendix is divided into four parts as follows:

Part I - Statutes arranged alphabetically by title Part

II - Executive Orders arranged numerically

Part III - Regulations/Standards arranged alphabetically by title

Part IV - External Authorities applicable to Real Estate

A. Statutes arranged alphabetically by title
B. Executive Orders arranged numerically
C. Regulations/Standards arranged alphabetically by title

Appendix E: Part I - Statutes Revised 10/2014

Title	**Description Summary**	**Functional area affected**	**Promulgated by AMS: P=Policy, G=Guidance, C=Clause *=See Office of Chief Counsel**			
Administrative Procedures Act (5 USC 500 et seq)	Authorizes a duly qualified individual to represent a person before an agency.	All				*
Agreement on Civil Aircraft (19 USC 2513)	Exempts civil aircraft from Buy American Act.	Procurement				*
Air Commerce and Safety (49 USC 40121(c)(2)	Establishes legal authority for joint activities between DoD and FAA to improve or replenish the national air traffic control system.	Procurement		G		
Airport Improvement (AIP) Grants (49 USC 47101)	Establishes U.S. policy for airport development and improvement.	Agreements		G		
Air Traffic Management System Performance Improvement Act of 1996, P.L. 104-264 (49 USC 40121).	Administrator must consider terminating Facilities and Equipment acquisition program that exceeds 10% of cost or schedule baseline or fails to achieve 90% of performance goals. When cost or schedule breach is 50% or more, Administrator must terminate program, or make a written	All	P			

	determination to continue program and send the determination to Congress.					
Air Transportation Security (49 USC 44903)	Authorizes the Administrator to prescribe regulations to protect passengers and property on an aircraft operating in air transportation or intrastate air transportation against an act of criminal violence or aircraft piracy.	Procurement		G		
Anti-Deficiency Act (31 USC 1341)	Prohibits expenditure in excess of funds available.	Procurement	P	G	C	
Anti-Kickback Act (41 USC 8701-8707)	Prohibits offering or accepting kickbacks; criminal penalties apply.	Ethics Procurement Real Estate			 C	*
Anti-Lobbying Act (31 USC 1352)	Prohibits use of Federal funds for lobbying.	Procurement				*
Assistance to Foreign Aviation Authorities (49 USC 40113(e)	Authorizes the Administrator to provide safety-related training and operational services to foreign aviation authorities with or without reimbursement, if the Administrator determines that providing such services promotes aviation safety.	Procurement		G		
Authority to Transfer an Interest in Surplus Property (49 USC 47151)	Authorizes a department, agency, or instrumentality of the executive branch of the U.S. Government or a wholly owned Government corporation to give a State, political subdivision of a State, or tax-supported organization any interest in property subject to sections 47152, Terms of Gifts and 47153, Waiving and Adding Terms, of this title.	Procurement		G		
Bayh-Dole Act (35 USC 200)	Provides policy regarding inventions made with Government assistance	Procurement				*
Bona fide Fiscal year need statutes (31 USC 1301)	Requires appropriations to be applied only to the objects for which the appropriations were made except	Budget Procurement			C	*

	as otherwise provided by law.					
Bribery and Conflict of Interest Laws (18 USC 201)	Prescribes fines and punishment for bribery of public officials and witnesses.	All				*
Bribery and Conflict of Interest Laws (18 USC 208)	Prescribes acts and penalties affecting a personal financial interest.	All	P			
Buy American Act (41 USC 8301-8305)	Requires American manufactured materials and supplies for public use. (Also see Executive Order 10582)	Procurement	P	G	C	
Buy American (FAA) (49 USC 50101)	Mandates a preference for raw and manufactured American materials.	Procurement			C	*
Cargo Preference Act (46 USC 1241)	Mandates preference for shipping cargo on U.S. ships.	Procurement			C	
Caribbean Basin Economic Recovery Act (19 USC 2701)	Exempts certain Caribbean countries from Buy American provisions of 19 USC 2701.	Procurement		G		
Clean Air Act (42 USC 7401 et seq)	Encourages or otherwise promotes reasonable Federal, State, and local governmental actions, consistent with the provisions of this chapter, for pollution prevention.	Procurement Environment	P	G	C	
Clean Water Act (33 USC 1251 et seq)	Restores and maintains the chemical, physical, and biological integrity of the Nation's waters.	Procurement Environment	P	G	C	
Common Carrier Liability (49 USC 11707)	Specifies liability when property is delivered in violation of routing instructions.	Procurement				*
Comprehensive Iran Sanctions, Accountability, and Divestment Act of 2010 (P.L. 111-195)	Requires offerors to certify that they have not exported sensitive technology to Iran	Procurement		G	C	
Contract Work Hours and Safety Standards Act (40 USC 328)	Establishes a standard 8 hour workday and standard 40 hour workweek for laborers and mechanics, with compensation of not less than one and one-half times the basic rate of pay for work exceeding the standard workweek.	Procurement	P	G	C	

Convict Labor Act (18 USC 23-436)	Prohibits convicts from performing Government contracts. (Also see Executive Orders 11755 and 12943)	Procurement	P	G		
Cooperative Research and Development Agreements (15 USC 3710a)	Supports the full use of the results of the Nation's Federal investment in research and development. To this end the Federal Government must strive where appropriate to transfer Federally owned or originated technology to State and local governments and to the private sector.	Agreements		G		
Copeland Act (18 USC 874 and 40 USC 276c) a.k.a. Anti-Kickback Act	Makes it unlawful to induce any person, employed in the construction or repair of public buildings or public works financed in whole or in part by the U.S., to give up any part of the compensation to which they are entitled.	Procurement	P	G	C	
Davis Bacon Act (40 USC 276a)	Requires construction contractors to pay prevailing wages for laborers and mechanics.	Procurement	P	G	C	
Department of Transportation, General Duties and Powers (49 USC 322(c))	Provides general authority for FAA to enter into reimbursable agreements with other agencies and for cooperative agreements to use the services, records, and facilities of State, territorial, municipal and other agencies. However, 49 USC 106 (l) and (m) provides broader authority and should be cited in place of Section 322(c) for FAA agreements.	Agreements		G		
Disclosure of Confidential Information (18 USC 1905)	Prohibits the disclosure of confidential information by public officials, i.e. trade secrets.	Ethics Procurement	P	G		
Drug Free Workplace (41 USC 8101-8106)	Prohibits award of contracts to entities who have not certified that it is a drug free workplace. AMS does not reference 41 USC 8101-8106. However it is	Procurement	P	G	C	

	FAA policy to only award contracts to entities who have certified a drug free workplace.					
Economy Act (31 USC 1535)	Authorizes the head of an agency or major organizational unit within to place an order with a major organizational unit within the same agency or another agency for goods or services under conditions specified in the statute.	Procurement		G		
Energy Policy and Conservation Act (42 USC 6361(a)(1))	Requires agencies to develop mandatory standards for energy conservation and energy efficiency to govern the procurement policies and decisions of the Federal Government and all Federal agencies and to cause such standards to be implemented.	Procurement Environment	P	G		
Explosive Detection (49 USC 44913)	Governs the deployment and purchase of explosive detection equipment under 14 USC 108.7(b)(8) or 108.20 when the FAA Administrator certifies	Procurement		G		
	that the equipment alone, or as part of an integrated system, can detect under realistic air carrier operating conditions the amounts, configurations, and types of explosive material that would likely be used to cause catastrophic damage to commercial aircraft.					
False Claims Act (31 USC 3729)	Specifies civil penalties for false claims against the U.S.	All		G		*
Fastener Quality Act - June 8, 1999 (15 USC 5402)	Requires fasteners (i.e. bolts, nuts, screws) to be manufactured in accordance with a fastener quality assurance system; or manufactured to a proprietary standard, such as ISO 9000, QS9000, VDA6.1, or AS9000.	Procurement	P			
Federal Aviation Administration (49	Authorizes the Administrator to enter into and	Procurement	P	G		

USC 106)	perform such contracts, leases, cooperative agreements, or other transactions as may be necessary to carry out the functions of the Administrator and the Administration.					
Federal Claims Collection (31 USC 3711)	Establishes provisions for collecting claims of the U.S. for money or property arising out of the activities of, or referred to the agency.	Procurement				*
Federal Excise Taxes (26 USC 4041)	Imposes tax on diesel fuel in certain cases.	Procurement	P	G		
Federal Facilities Compliance Act	Mixed Waste is regulated as hazardous and radioactive waste under the Resource Conservation and Recovery Act (RCRA) and the Atomic Energy Act (AEA), respectively.	Environment				*
Federal Prison Industries (18 USC 4121)	Prescribes requirement for purchases from Federal Prison facilities.	Procurement	P	G	C	
Federal Workforce Restructuring Act of 1994 - P.L. 103-226 (5 USC 5597)	To provide temporary authority to Government agencies relating to voluntary separation, incentive payments, and for other purposes and limitation on procurement of Service Contracts with involuntarily separated employees.	Procurement	P	G	C	
Freedom of Information Act (FOIA) as amended (5 USC 552)	Regulates the release of public information; agency rules, opinions, orders, records, and proceedings.	All	P	G		*
General Facilities and Personnel Authority (49 USC 44502)	Provides general authority to the Administrator of the Federal Aviation Administration to acquire, establish, improve, operate, and maintain air navigation facilities; and provide facilities and personnel to regulate and protect air traffic.	Procurement Real Estate	P	G		
Gift and Bequests (49 USC 326)	Authorizes the Administrator to accept any conditional or unconditional gift or donation of	All		G		

	money or property, real or personal, or of services for the FAA					
Government Performance and Results Act of 1993 (31 USC 1101, 1115-1119)	Requires performance indicators and measurement.	Metrics Baseline Management	P			
Indian Incentive Program (25 USC 1544)	A contractor of a Federal agency under any Act of Congress may be allowed an additional amount of compensation equal to 5 percent of the amount paid, or to be paid, to a subcontractor or supplier, in carrying out the contract if such subcontractor or supplier is an Indian organization or Indian-owned economic enterprise as defined in this chapter.	Procurement	P	G	C	
Interest of Member of Congress (41USC 6306)	Prohibits member of or delegate to Congress from sharing in benefit from contract or grant	Procurement			C	*
International Airport Facilities, Administrative (49 USC 47305)	Authorizes the Secretary of Transportation to consolidate, operate, protect, maintain, and improve airport property and airway property (except meteorological facilities).	Procurement		G		
International Airport Facilities, Definitions (49 USC 47301)	Provides definitions pertaining to International Airport Facilities.	Procurement		G		
International Air Transportation Fair Competitive Practices Act of 1974 (49 USC 40118 (5))	Requires that all Federal agencies and Government contractors and subcontractors use U.S.- flag air carriers for U.S. Government-financed international air transportation of personnel (and their personal effects) or property, to the extent that service by those carriers is available. (Also known as the Fly America Act)	Procurement			C	
Iran Sanctions Act of 1996 (50 USC 1701 note)	Requires offerors to certify they have not been involved in sanctioned activities with the Government of Iran	Procurement		G	C	
Iran Threat Reduction and Syria Human	Expands sanctions relating to the energy sector of Iran and	Procurement		G	C	

Rights Act of 2012 (P.L. 112-158)	sanctions with respect to Iran's Revolutionary Guard Corps					
James Zadroga 9/11 Health and Compensation Act of 2010 (P.L. 111-347)	Imposes on any foreign person that receives a specified Federal procurement payment a tax of 2% of each payment. Stipulates that foreign contractors are not to be reimbursed for this tax.	Procurement		G	C	
Javits-Wagner-O'Day Act (41 USC 8501-8506)	Established the Committee for Purchase of Products and Services of the Blind and Other Severely Handicapped.	Procurement	P	G		
Judicial Review (49 USC 46110)	Prescribes judicial review process for a person disclosing a substantial interest in an order issued by the Secretary of Transportation (or the Administrator of the Federal Aviation Administration with respect to aviation safety duties and powers designated to be carried out by the Administrator) under this part.	Procurement	P		C	
Miller Act (40 USC 270a-270f)	Requires construction contractors to provide performance and payment bonds that are greater than $25,000 but not greater than $100,000.	Procurement	P	G	C	
National Earthquake Hazards Reduction Act of 1977 (P.L. 95-124), Amended 1990 (P.L. 101-614) (42 USC 7701 et seq.)	Requires Agencies to adopt standards for assessing and enhancing the seismic safety of buildings designed for, or constructed by, or leased by the Federal Government.	All	P			
North American Free Trade Agreement (NAFTA) P.L. 103- 182 (19 USC 3311)	Canada/Mexico exception from Buy American Act if purchase is over $25,000.	Procurement			C	
National Energy Conservation Policy Act (42 USC 6201)	Requires energy and water conservation measures for federal buildings, facilities, or space	Environment	P			
National Environmental Policy Act (42 USC 6201)	Requires environmental assessment or environmental impact statement for proposed Federal actions	Environment	P	G		
Paperwork Reduction Act (44 USC 3501)	Requires Federal agencies to become more responsible and publicly accountable for reducing the burden of Federal paperwork	All	P			

	on the public, and for other purposes resulting from the collection of information by or for the Federal Government.					
Privacy Act (5 USC 552a)	Establishes procedures for records maintained on individuals to ensure that certain information is secured.	Ethics Procurement	P	G	C	
Procurement Integrity Act (41USC 2101-2107)	Prohibits unauthorized release of source selection or other proprietary data.	Procurement	P	G	C	
Project Grant Authority (49 USC 47104)	Authorizes the Secretary of Transportation to make project grants from the Airport and Airway Trust Fund to maintain a safe and efficient nationwide system of public-use airports that meets the present and future needs of civil aeronautics.	Procurement		G		
Public Law 85-804 (50 USC 1431-1434)	Empowers the President to authorize agencies exercising functions in connection with the national defense to enter into, amend, and modify contracts, without regard to other provisions of law related to making, performing, amending, or modifying contracts, whenever the President considers that such action would facilitate the national defense, to exercise the authority conferred by the Act and to delegate it to other officials within the agency. (Also see E.O. 10789)	Procurement	P	G	C	
Randolph-Sheppard Vending Facility Act (20 USC 107)	Provides for blind persons licensed under the provisions of this chapter authorization to operate vending facilities on any Federal property.	Procurement	P	G		
Rehabilitation Act of 1973 - Section 508 (29 USC 794d)	Requires information technology purchases to be accessible to people with disabilities.	Procurement	P	G	C	
Rehabilitation Act (29 USC 793)	Requires affirmative action to employ and advance in employment qualified individuals with disabilities.	Procurement	P	G		*
Research and Development (49 USC 44912)	Requires the FAA Administrator to establish and carry out a program to accelerate and expand	Procurement		G		

	the research, development, and implementation of technologies and procedures to counteract terrorist acts against civil aviation.					
Resource Conservation and Recovery Act (42 USC 6901)	Prescribes policies and procedures for acquiring Environmental Protection Agency-designated products through affirmative procurement programs.	Procurement Environment	P	G	C	
Robert T Stafford Disaster Relief and Emergency Assistance Act (42 USC 5150)	Provides for a preference for local organizations, firms, or activities when contracting for major disaster or emergency assistance activities	Procurement	P	G	C	
Service Contract Act (41 USC 6701-6707)	Provides for minimum wages and fringe benefits as well as other conditions of work under certain types of service contracts. Whether or not the Act applies to a specific service contract will be determined by the definitions and exceptions given in the Act, or implementing regulations.	Procurement	P	G	C	
Service-Disabled Veteran Owned Small Business Program (13 CFR,121,125&134)	Provides for competitive and non-competitive set- asides for Service Disabled Veteran Owned Small Businesses.	Procurement	P	G	C	
Systems, Procedures,	Requires the FAA Administrator to develop,	Procurement		G		
Facilities, and Devices (49 USC 44505)	alter, test, and evaluate systems, procedures, facilities, and devices, and define their performance characteristics, to meet the needs for safe and efficient navigation and traffic control of civil and military aviation, except for needs of the armed forces; and to select systems, procedures, facilities, and devices that will best serve those needs and promote maximum coordination of air traffic control and air defense systems.					
Terms of Gifts (49 USC 47152)	Specifies the terms applicable to a gift of an interest in surplus property.	Procurement		G		
Training Schools (49 USC 40108)	Authorizes the FAA Administrator to operate schools	Procurement		G		

	to train officers and employees of the Administration to carry out duties, powers, and activities of the Administrator.					
Vietnam Era Veterans Readjustment Act (38 USC 2012)	Requires contractors and subcontractors, when entering contracts subject to the Act, to list all suitable employment openings with the appropriate local employment service office and take affirmative action to employ, and advance in employment, qualified special disabled veterans and veterans of the Vietnam Era without discrimination based on their disability or Veteran's status. (Also see Executive Order 11701)	Procurement		G		*
Waiving and Adding Terms (49 USC 47153)	Authorizes the Secretary of Transportation to waive, without charge, a term of a gift of an interest in property under this subchapter.	Procurement		G		
Walsh Healey Public Contracts Act (41 USC 6501-6511)	Provides conditions for the purchase of supplies and the making of contracts by the United States, and for other purposes.	Procurement	P	G		
Wendell H. Ford Aviation Investment & Reform Act for the 21st Century (49 USC 40110(d)(3))	Subjects the FAA to the Procurement Integrity Act (41 USC 2101-2107), except that sections 2101, Definitions, and 2106, Reporting information believed to constitute evidence of offense, must not apply.	Procurement		G		

END OF PART I

Appendix E: Part II - Executive Orders Revised 1/2020

Title	**Description Summary**	**Functional area affected**	**Promulgated by AMS:** **P=Policy, G=Guidance, C=Clause** ***= See Office of Chief Counsel**			
Executive Order 10582, Prescribing Uniform	Requires the Government to give preference to domestic end products.	Procurement		G	C	

Procedures for Certain Determinations Under the Buy-American Act (Dec 17, 1954	(See Buy American Act.) Amended by E.O.'s 10761, 11051, 12148, and 12608. (Also see E.O. 12148)					
Executive Order 10789, Authorizing agencies of the Government to exercise certain contracting authority in connection with national-defense functions and prescribing regulations governing the exercise of such authority	Authorizes non-DoD agencies of the Government to exercise certain contracting authority in connection with national-defense functions and to prescribe regulations governing the exercise of such authority. Amended by: EO 11051, September 27, 1962; EO 11382, November 28, 1967; EO 11610, July 22, 1971; EO 12148, July 20, 1979; EO 12919, June 3, 1994; EO 13232, October 20, 2001; EO 13286, February 28, 2003	Procurement	P	G	C	
Executive Order 11141, Equal Employment Opportunity, (February 12, 1964)	Prescribes policies and procedures pertaining to nondiscrimination in employment by contractors and subcontractors	Procurement	P	G	C	
Executive Order 11701, Employment of veterans by Federal agencies and Government contractors and subcontractors (Jan. 24, 1973)	Requires each department and agency of the executive branch of the Federal Government list suitable employment openings with the appropriate office of State Employment Service or the United States Employment Service and extends the program to Government contractors and subcontractors. (Also 38 USC 2012)	Procurement		G		
Executive Order 11912, Delegation of Authorities Relating to Energy Policy and Conservation (April 13, 1976)	Amended by: EO 12003, July 20, 1977; EO 12038, February 3, 1978; EO 12148, July 20, 1979; EO 12375, August 4, 1982. Superseded or revoked in part by E.O. 12919, National Defense Industrial Resources Preparedness.(Also see E.O. 12919)	Procurement Environment	P			

Executive Order 12038, Relating to Certain Functions Transferred to the Secretary of Energy by the Department of Energy Organization Act (February 3, 1978)	Relates to certain functions transferred to the Secretary of Energy by the Department of Energy Organization Act. Amended by: EO 12156, September 10, 1979 and by EO 12287 - Decontrol of crude oil and refined petroleum products. (Also see E.O.12287)	Procurement Environment	P			
Executive Order 12591, Facilitating Access to Science and Technology (April 10, 1987)	Amended by E.O. 12618. Authorizes the FAA to apply the policies of the Bayh-Dole Act (inventions made with Government Assistance) to all participants in cooperative agreements. (Also see E.O. 12618)	Agreements		G		
Executive Order 12600, Predisclosure Notification Procedures for Confidential Commercial Information (June 23, 1987)	Describes predisclosure notification procedures for confidential commercial information requested under the Freedom of Information Act (FOIA)	All	P	G		
Executive Order 12618, Uniform Treatment of Federally Funded Inventions (December 22, 1987)	Amended E.O. 12591.	Procurement				
Executive Order 12699, Seismic Safety of Federal and Federally Assisted or Regulated New Building Construction	Requires Federal agencies to follow national and local seismic building codes, whichever provides the greatest margin of safety, when constructing new buildings or modifying existing buildings. Amended by: EO 13286, February 28, 2003	All				
Executive Order 12829, National Industrial Security Program, (January 6, 1993) Amended by E.O. 12885	Requires a National Industry Security Program Operating Manual. Amended by E.O. 12885 December 14, 1993 to extend the time to issue the National Industrial Security Program operating manual. (Also see E.O. 12885)	Procurement	P	G		
Executive Order	Delegates authority and addresses national defense industrial	Procurement				

12919, National Defense Industrial Resources Preparedness (June 3, 1994)	resource policies and programs under the Defense Production Act of 1950. Amended by: EO 13286, February 28, 2003. Supersedes or revokes E.O. 11912 in part. (Also see E.O. 11912)Revoked in part by: EO 13456, January 23, 2008.					
Executive Order 12928, Promoting Procurement with Small Businesses Owned and Controlled by Socially and Economically Disadvantaged Individuals, Historically Black Colleges and Universities, and Minority Institutions, (Sep 16, 1994)	Establishes policy that all department and agency heads and all Federal employees involved in the procurement of any and all goods and services must assist SDBs, HBCUs, and MIs, as applicable, to develop viable, self-sustaining, businesses capable of competing on an equal basis in the mainstream of the American economy.	Procurement MPPG reporting		G		
Executive Order, 13360 Providing Opportunities for Service-Disabled Veteran Businesses To Increase Their Federal Contracting and Subcontracting, (October 20, 2004)	Establishes policy that all heads of agencies must provide the opportunity for service-disabled veteran businesses to significantly increase the Federal contracting and subcontracting of such businesses.	Procurement		G		
Executive Order 12941, Seismic Safety of Existing Federally Owned or Leased Buildings (December 1, 1994)	Requires Federal Agencies to follow the standards developed, issued and maintained by the Interagency Committee for Seismic Safety in Construction (ICSSC).	All	P			
Executive Order 12968, Access to Classified Information (August 2, 1995)	Establishes a uniform Federal personnel security program for employees who will be considered for initial or continued access to classified information. Amended by: EO 13467, June 30, 2008	Procurement Security	P	G	C	
Executive Order 13043, Increasing Seat Belt Use in the U.S. (April 16, 1997)	Requires seat belt use by Federal employees while on official business and motor vehicle occupants in National Park and Dept. of Defense	Procurement	P		C	

	installations. Encourages Federal contractors, subcontractors, and grantees to adopt and enforce on-the-job seat belt use policies and programs.					
Executive Order 13142, Amendment to E.O. 12958– Classified National Security Information (Nov. 19, 1999)	Amended sections 3.4(a), 5.2(a)(b), 5.3(b)(4) of E.O. 12958. (Also see E.O. 12958)	Procurement Security				*
Executive Order 13170, Increasing Opportunities and Access for Disadvantaged Businesses (Oct 6, 2000)	Establishes additional incentives for outreach and goal setting to increase opportunities and access for disadvantaged businesses.	Procurement				*
Executive Order 13221, Energy Efficient Standby Power Devices (July 31, 2001)	Encourages energy conservation by requiring the Government to purchase COTS products that use no more than one watt in their external or internal standby power devices or functions.	Procurement				*
Executive Order 13502, Use of Project Labor Agreements for Federal Construction Projects, (February 6, 2009)	Promotes the efficient administration and completion of Federal construction projects Revokes: EO 13202, February 17, 2001; EO 13208, April 6, 2001	Procurement Real Estate		G	C	*
Executive Order 13513, Federal Leadership on Reducing Text Messaging While Driving (October 1, 2009)	Encourages contractors and subcontractors to adopt and enforce policies banning text messaging while driving company- owned or Government-owned vehicles, or privately-owned vehicles when on official government business or performing any work on behalf of the Government.	Procurement			C	
Executive Order 13627, Strengthening Protections Against Trafficking in Persons in Federal Contracts (September 25, 2012)	Creates a stronger framework to eliminate trafficking in persons from Federal contracts.	All	P	G	C	
Executive Order 13834, Efficient Federal Operations (May 17, 2018)	To meet energy and environmental performance statutory requirements in a manner that increases efficiency, optimizes performance, eliminates	All	P	G	C	

	unnecessary use of resources and protects the environment. Revokes EO 13693.					

END OF PART II

Title	Description Summary	Functional area affected	Promulgated by AMS: P=Policy, G=Guidance, C=Clause *=See Office of Chief Counsel			
Cost Accounting Standards (CAS) (48 CFR 9903.101)	Uniform standards for government contractor's accounting for and reimbursement of costs. Within the FAA Cost Accounting Standards (CAS) do not apply to contracts for commercial items. Full or modified CAS coverage may be applied to cost type contracts only.	Procurement	P	G	C	
Department of Transportation Policy for Seismic Safety of New and Existing DOT Owned or Leased Buildings (DOT SS-98-01)	Requires each DOT Operating Administration to ensure that new DOT owned buildings and additions and new buildings leased for DOT occupancy, are designed and constructed to comply with appropriate seismic design and construction standards. Additionally, each Operating Administration is required to mitigate unacceptable earthquake risks in existing buildings via a long-term risk mitigation program.	All	P			
Export Administration Regulations (EAR), 15 CFR Parts 730 through 774	U.S. Department of Commerce regulations for the export and re-export of most commercial items, services or documentation.	All	P	G	C	
Federal Management Regulations (formerly Federal Property Management)	Regulations used by GSA and other executive agency officials to regulate, and prescribe policies, procedures, and delegations of authority pertaining to the management of property, inventory, and disposal.	Real Property	P			
Federal Standard 313, Material	Establishes requirements for the preparation and submission of	Procurement				

Safety Data, Transportation Data and Disposal Data for hazardous materials furnished to Government activities.(March 1, 1988)	Material Safety Data Sheets by contractors who provide hazardous materials to government activities.	Environment				
FEMA 74, Reducing the Risk of Nonstructural Earthquake Damage, (Sep. 1994)	Provides Interagency Committee for Seismic Safety in Construction (ICSSC) requirements for equipment and other building system installation, risk mitigation and guidance on prioritizing projects.	All	P			
FEMA 310, Handbook for the Seismic Evaluation of Buildings: A Pre-Standard, (January 1998)	Provides requirements for identification of unacceptable seismic risks in existing buildings and equipment installations.	All	P			
FEMA 356, NEHRP. Pre-Standard and Commentary for the Seismic Rehabilitation of Buildings, (November 2000)	Provides requirements for mitigation of unacceptable seismic risks in existing buildings and equipment installations.	All	P			
FEMA 368/369, 2000 NEHRP Provision for Seismic Regulations for New Buildings and Other Structures, Parts 1 and 2, 2001.	Provides Interagency Committee for Seismic Safety in Construction (ICSSC) requirements for the construction of new buildings as well as design and installation of new equipment for installation in any new or existing building.	All	P			
International Building Code (IBC) (2000/2003)	Establishes the current international building code in effect for all new construction of Federal buildings.	All	P			
International Traffic in Arms Regulations	Department of State regulations that control the export and import of defense-related articles, services		P	G	C	

(ITAR), 22 CFR Parts 120 through 130	and documents on the United States Munitions List (USML)					
Local Seismic Building codes (depends on location of project or installation site)	Requires use of local seismic building codes if they require a greater margin of safety than international or national building codes.	All	P			
NIST RP-6, standards for Seismic Safety for Existing Federally Owned or Leased Buildings, (January 2002)	Provides requirements for leasing and acquisition of existing buildings.	All	P			
Occupational Safety and Health Administration Regulations (29 CFR 1910.38)	Requires a written plan for emergency situations for each workplace where there is a possibility of an emergency. Appropriate portions of the plan must be implemented in the event of an emergency.	All	P	G	C	
OMB Circular A-76, Performance of Commercial Activities - (Aug. 4, 1983; Revised 1999)	Establishes Federal Policy regarding the performance of commercial activities. FAA's policy is to follow the guidance of this circular to the extent such standards are consistent with the FAA's Acquisition Management System and the Administrator's authority to implement "such terms or conditions as the Administrator may deem appropriate."	Investment Analysis Procurement	P	G		*
OMB Guidance "Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards" dated December 26, 2013 (2 CFR Part 200)	To more effectively focus Federal resources on improving performance and outcomes while ensuring the financial integrity of taxpayer dollars in partnership with non-Federal stakeholders. Supersedes OMB Circulars A-21, A-87, A-102, A-110, and A-121.	Procurement		G		*
Patent and Copyright Laws	Establishes prohibitions regarding Patent and Copyright infringement.	Procurement	P	G	C	

Protests and Contract Disputes; 14 CFR, Parts 14 & 17.	Prescribes procedures for protests and contract disputes.	All	P		C	
Standards of Conduct for Employees of the Executive Branch (5 CFR 2635)	Prohibits conflicts of interest	All	P	G	C	

END OF PART III

Appendix E: Part IV - External Authorities applicable to Real Estate Revised 1/2020

Part IV A: Statutes

Title	Description Summary	Functional area affected	Promulgated by AMS: P=Policy, G=Guidance, C=Clause *=See Office of Chief Counsel			
Act of December 10, 1941 (40 USC 291)	Requires Federal agencies to admit seeing-eye dogs or other guide dogs accompanied by their blind masters to any building or other property owned or controlled by the United States.	Real Estate	P			
Administrative Procedures Act (5 USC 500 se seq)	Authorizes a duly qualified individual to represent a person before an agency.	All				*
Anti-Kickback Act(41 USC 8701-8707)	Prohibits offering or accepting kickbacks; criminal penalties apply.	Ethics Procurement Real Estate			C	*
Architectural Barriers Act of 1968 (42 USC 4151-4157)	Requires facilities be provided to ensure ready access for disabled persons to public buildings and certain interior spaces.	Real Estate	P	G	C	
Assignment of Claims (31 USC 3727, 41 USC 6305)	Authorizes the lessor to assign his rights to be paid under a lease agreement	Real Estate			C	
Bribery and Conflict of Interest Laws (18 USC 201)	Prescribes fines and punishment for bribery of public officials and witnesses.	All				*
Bribery and Conflict of Interest Laws (18 USC 208)	Prescribes acts and penalties affecting a personal financial interest.	All	P			
Child Care Services for Federal Employees in Federal Buildings	Provides Federal agencies with the authority to allot space in Federal buildings to individuals or entities that will provide child care services to Federal employees.	Real Estate	P			

Clean Air Act of 1963 (42 USC 7401)	Requires the utilization in Federal air control programs of all available and appropriate facilities and resources within the Federal Government for the prevention and abatement of air pollution.	Real Estate	P			
Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (42 USC 9601)	Provides for liability, compensation, cleanup and emergency response for hazardous substances released into the environment, and the cleanup of hazardous waste disposal sites.	Real Estate	P			
Energy Independence and Security Act of 2007 (Pub. L. 110-140)	Amends portions of the National Energy Conservation Policy Act (42 USC 8253(a)(1) and adopts the energy intensity reduction goals of Executive Order 13423 beginning in year 2008. Provides for enhanced building standards, lighting, and water and energy usage goals.	Real Estate Procurement	P			
Energy Policy Act (EPAct) of 2005	Provides for increased energy and water efficiency.	Real Estate	P			
Energy Policy Act of 1992 (Pub. L. 102-486, 106 Stat. 2776)	Provides for increased energy efficiency. Superseded, in part, by the EPAct of 2005.	Real Estate Procurement	P			
False Claims Act(31 USC 3729)	Specifies civil penalties for false claims against the U.S.	All		G		*
Federal Aviation Authorization Act of 1996 (49 USC 106)	The Administrator is authorized to enter into and perform such contracts, leases, cooperative agreements, or other transactions.	Real Estate	P	G		
Federal Water Pollution Control Act (33 USC 1251)	Requires that all agencies comply with all Federal, State, interstate, and local requirements, respecting the control and abatement of water pollution.	Real Estate	P			
Federal Property and Administrative Services Act of 1949, as amended (40 USC 471)	This act establishes the Federal Building Fund and provides the Administrator of General Services Administration with an important source of real property related authority. FAA is not required to follow Title II of this act.	Real Estate	P	G		
Federal Water Pollution Control Act (33	Requires that all agencies of the executive, legislative, and judicial branches of the Federal	Real Estate	P			

USC 1251)	Government must comply with all Federal, State, interstate, and local requirements respecting the control and abatement of water pollution.					
Freedom of Information Act of 1986 (5 USC 552)	Regulates the release of public information; agency rules, opinions, orders, records, and proceedings.	All	P	G	C	
General Procurement Authority (49 USC 40110)	The Administrator may acquire services or, by condemnation or otherwise, and interest in property, and may dispose of an interest in property.	Real Estate	P	G		
General Facilities and Personnel Authority (49 USC 44502)	Provides general authority to the Administrator of the Federal Aviation Administration to acquire, establish, improve, operate, and maintain air navigation facilities; and provide facilities and personnel to regulate and protect air traffic.	Procurement Real Estate	P	G		
Gift and Bequests (49 USC 326)	Authorizes the Administrator to accept any conditional or unconditional gift or donation of money or property, real or personal, or of services for the FAA.	All		G		
National Earthquake Hazards Reduction Act of 1977 (P.L. 95-124), Amended 1990 (P.L. 101-614) (42 USC 7701 et seq.)	Requires Agencies to adopt standards for assessing and enhancing the seismic safety of buildings designed for, or constructed by, or leased by the Federal Government.	Real Estate	P			
Paperwork Reduction Act (44 U.S.C. 3501)	Requires Federal Agencies to become more responsible and publicly accountable for reducing the burden of Federal paperwork on the public, and for other purposes resulting from the collection of information by or for the Federal Government.	All	P			
Public Buildings Act of 1959, as amended (40 USC 601-619)	This act establishes a prospectus threshold, applicable to all federal agencies. Also the Administrator of GSA has authority to construct, acquire, and alter public buildings.	Real Estate	P			
Public Buildings Cooperative Use Act of 1976 (40 USC	Requires the Administrator of GSA to acquire and utilize space in suitable buildings of historic,	Real Estate	P			

601a, 612a.)	architectural, or cultural significance.					
National Environmental Policy Act of 1969 (42 USC 4321)	Requires consideration of environmental factors in the decision-making process for major Federal actions.	Real Estate	P			
National Historic Preservation Act (16 USC 470)	Requires Federal agencies to take into account the effect of any Federal undertaking on any property in or eligible for listing in the National Register of Historic Places.	Real Estate	P			
Occupational Safety and Health Act of 1970, amended (29 USC 653)	Requires Federal agencies to provide safe and healthful places and conditions of employment.	Real Estate	P	G	C	
Quarters and facilities; employees in the United States (5 USC 5911)	Agency may provide quarters and facilities for employees when conditions warrant.	Real Estate	P			
Randolph-Sheppard Vending Facility Act, amended (20 U.S.C. 107 - 107f)	Provides for blind persons licensed under the provisions of this chapter authorization to operate vending facilities on any Federal property.	Procurement Real Estate	P P	G G		
Rehabilitation Act of 1973, amended (Pub. L. 93-112, 387 Stat. 355)	Requires Federal agencies to ensure compliance with standards set by GSA, DOD and HUD pursuant to the Architectural Barriers Act of 1968.	Real Estate	P	G		
Rural Development Act of 1972 (Pub. L. 92-419, 86 Stat. 657)	Provides for improving the economy and living conditions in rural America. FAA must give first consideration to rural areas when locating new space, land, and other facilities	Real Estate	P	G	C	
Stewart B. McKinney Homeless Assistance Act (42 USC 11411-11412)	Requires Federal agencies to make available surplus real property to homeless organizations.	Real Estate	P			
Superfund Amendments and Reauthorization Act of 1986, amended (42	Extends and amends CERCLA.					*

USC 9601- 9675)						
Service, supplies, and facilities at remote places (49 USC 331)	Agency may provide when necessary, services, supplies, and facilities at remote places.	Real Estate	P			
Title 49, USC, Section 1159 (a) and (c)	Airport property and airway property in territory (including Alaska) outside the continental limits of the United States.	Real Estate	P			
Uniform Relocation Assistance and Real Property Acquisition (42 USC 4651-4655)	Requires Federal agencies to treat all property owners and other affected persons in a fair and equitable manner, and to provide relocation services and benefits to persons displaced by Federal agency's acquisition of their real property.	Real Estate	P	G		

Part IV B: Executive Orders

Title	**Description Summary**	**Functional area affected**	**Promulgated by AMS:** **P=Policy, G=Guidance, C=Clause** ***=See Office of Chief Counsel**			
Executive Order 11508, Providing for the Identification of Unneeded Federal Real Property (Feb. 12, 1970)	Establishes a uniform policy for Executive branch concerning the identification of excess real property holdings.	Real Estate	P			
Executive Order 11593, Protection and Enhancement of the Cultural Environment (May 13, 1971)	Requires Federal Agencies to direct their policies, plans and programs that federally owned sites, and structures are preserved, restored and maintained.	Real Estate	P			
Executive Order 11738, Providing for Administration of the Clean Federal Water Pollution Control Act with respects to	Requires Federal agencies having authority to enter into contracts to conduct its acquisitions that will result in effective enforcement of the Clean Air Act and the Federal Water Pollution Control Act.	Real Estate	P			

Federal Contracts, Grants, or Loans (Sept. 12, 1973)						
Executive Order 11988, Floodplain Management (May 24, 1977)	Requires that agencies take action to reduce the risk of flood loss and to restore and preserve the natural and beneficial values served by floodplains for acquiring, managing and disposing of Federal lands and facilities.	Real Estate	P			
Executive Order 11990, Protection of Wetlands (May 24, 1977)	Requires that agencies take action to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands for acquiring, managing, and disposing of Federal lands and facilities.	Real Estate	P			
Executive Order 12003, Relating to Energy Policy and Conservation (July 20, 1977)	Requires buildings constructed for Government lease to meet certain energy consumption design specifications.	Real Estate	P			
Executive Order 12088, Federal Compliance with Pollution Control Standards (October 13, 1978)	Requires agencies ensure action is taken to prevent, control, and abate environmental pollution with respect to Federal facilities and activities. Revoked, in part, by EO 13423.	Real Estate	P			
Executive Order 12196, Occupational Safety and Health Programs	Requires Federal agencies to establish and maintain occupational safety and health programs for Federal employees.	Real Estate	P			
Executive Order 12512, Federal Real Property Management (April 29, 1985)	Authorizes the GSA administrator to provide Government wide policy oversight and guidance for Federal real property management.	Real Estate	P			
Executive Order 12699, Seismic Safety of Federal and Federally Assisted or Regulated New Building Construction (January 5, 1990)	Requires agencies responsible for the design and construction of each new Federal building and/or the construction and lease of new buildings for Federal use to ensure the building is designed and constructed in accord with appropriate seismic design and construction standards. Amended by: EO 13286, February 28, 2003	All	P			
Executive Order 12941, Seismic Safety of Existing	Requires agencies to meet substantial life safety standards for seismic.	Real Estate	P			

Federally Owned and Leased Buildings (December 1994)						
Executive Order 13202, Preservation of Open Communication and Government Neutrality towards Government Contractors (Feb. 17, 2001)	Promotes the economical, non-discriminatory, and efficient administration and completion of Federal and Federally funded or assisted construction projects. (Also see E.O. 13208)	Procurement Real Estate				*
Executive Order 13208, Assisted Construction Projects (April 6, 2001)	Amends E.O. 13202. Added a new section to permit the Head of an Executive Agency to exempt a particular project from the requirements of any or all provisions of Sections 1 and 3 of E.O. 13202. (Also see E.O. 13202)	Procurement Real Estate				*
Executive Order 13327, Federal Real Property Asset Management (Feb. 4, 2004)	To improve the overall management of Federal real property assets on a Government-wide level. Amended by E.O. 13423.	Real Estate	P			
Executive Order 13834, Efficient Federal Operations (May 17, 2018)	To meet energy and environmental performance statutory requirements in a manner that increases efficiency, optimizes performance, eliminates unnecessary use of resources and protects the environment. Note: Related and previously revoked Executive Orders include: 11507, 11752, 12856, 12873, 12902, 13423, 13514, and 13693.	All	P	G	C	

Part IV C: Regulations/Standards

Title	**Description Summary**	**Functional area affected**	**Promulgated by AMS:** **P=Policy, G=Guidance, C=Clause** ***=See Office of Chief Counsel**			
Department of Transportation	Requires each DOT Operating Administration to ensure that new DOT	All	P			

Policy for Seismic Safety of New and Existing DOT Owned or Leased Buildings (DOT SS-98-01)	owned buildings and additions and new buildings leased for DOT occupancy, are designed and constructed to comply with appropriate seismic design and construction standards. Additionally, each Operating Administration is required to mitigate unacceptable earthquake risks in existing buildings via a long-term risk mitigation program.					
Federal Management Regulations (formerly Federal Property Management)	Prescribes regulations, policies, procedures and delegations of authority pertaining to the management of property, inventory, and disposal when FAA leases real property through GSA. Serves as guidelines for FAA direct lease actions.	Real Estate	P	G		
FEMA 74, Reducing the Risk of Nonstructural Earthquake Damage, (Sep. 1994)	Provides Interagency Committee for Seismic Safety in Construction (ICSSC) requirements for equipment and other building system installation, risk mitigation and guidance on prioritizing projects.	All	P			
FEMA 310, Handbook for the Seismic Evaluation of Buildings: A Pre-Standard, (January 1998)	Provides requirements for identification of unacceptable seismic risks in existing buildings and equipment installations.	All	P			
FEMA 356, NEHRP. Pre-Standard and Commentary for the Seismic Rehabilitation of Buildings, (November 2000)	Provides requirements for mitigation of unacceptable seismic risks in existing buildings and equipment installations.	All	P			
FEMA 368/369, 2000 NEHRP Provision for Seismic Regulations for New Buildings and Other Structures, Parts 1 and 2,2001.	Provides Interagency Committee for Seismic Safety in Construction (ICSSC) requirements for the construction of new buildings as well as design and installation of new equipment for installation in any new or existing building.	All	P			
International Building Code (IBC) (2000/2003)	Establishes the current international building code in effect for all new construction of Federal buildings.	All	P			

Local Seismic Building codes (depends on location of project or installation site)	Requires use of local seismic building codes if they require a greater margin of safety than international or national building codes.	All	P			
NIST RP-6, standards for Seismic Safety for Existing Federally Owned or Leased Buildings, (January 2002)	Provides requirements for leasing and acquisition of existing buildings.	All	P			
Occupational Safety and Health Administration Regulations (29 CFR 1910.38)	Requires a written plan for emergency situations for each workplace where there is a possibility of an emergency. Appropriate portions of the plan must be implemented in the event of an emergency.	All	P	G	C	
Protests and Contract Disputes; 14 CFR, Parts 14 & 17.	Prescribes procedures for protests and contract disputes.	All	P		C	
Standards of Conduct for Employees of the Executive Branch (5 CFR 2635)	Prohibits conflicts of interest	All	P	G	C	
Uniform Federal Accessibility Standards (UFAS) (41 CFR 101-19.6 App. A)	Prescribes handicapped accessibility regulations for Federally owned or leased building premises.	Real Estate	P	G	C	

End of Part IV