BASELINE

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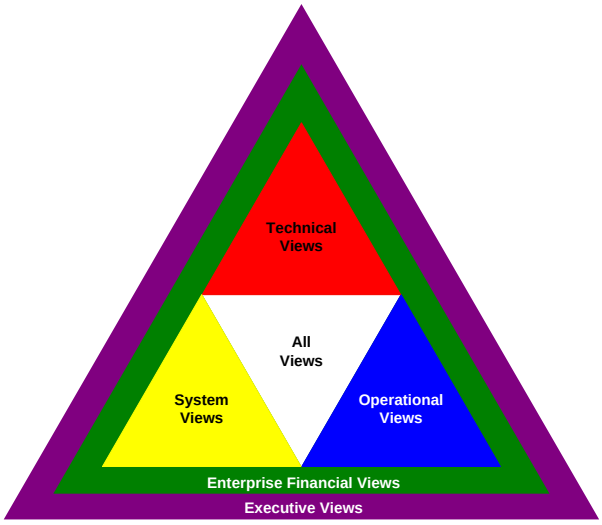
Federal Aviation Administration
National Airspace System Enterprise Architecture
(NAS EA)

Office of NextGen (ANG)



Far-Term Operational Activity to System/Services Function Traceability Matrix (SV-5)

Version 2.0

Part of Integrated Far-Term Release Package 2.0

20 December 2012

Version History

Version	Date	Description of Change
Integrated Release Package 1.0 SV-5 Draft V1.0	30 September 2011	Initial document release for comment
Integrated Release Package 1.0 Draft V1.1	15 February 2012	Document updated to maintain integration with Far-Term SV-4 updates
Integrated Far-Term Release Package 1.1 Review Draft SV-5 v1.2	28 September 2012	Based on comments from the 07/25/12 checkpoint meeting, reallocated the up-leveled system/service functions to the existing operational activities
Integrated Far-Term Release Package 1.2 Final Draft SV-5 v1.3	02 November 2012	Updated to include changes for formatting and consistency
Integrated Far-Term Release Package 2.0 Baseline SV-5 v2.0	20 December 2012	Approved by JRC

Document Purpose

This document presents the FAA Far-Term NAS Operational Activity to Systems/Services Function Traceability Matrix (SV-5) and provides information related to its use, value, development methodology, and next steps. This is a standalone document enabling the reader to understand, appraise, and use the Far-Term SV-5 as presented in the following sections. This architectural product is part of an Integrated Far-Term Release Package 2.0 and represents one of the many viewpoints of the Far-Term NAS EA.

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Far-Term Operational Activity to Systems/Services Function Traceability Matrix (SV-5)

1 Introduction

The purpose of the National Airspace System (NAS) Enterprise Architecture (EA) development initiative is to produce relevant data and information through architecture products that provide critical insights and transformational change over several timeframes (As-Is, Mid-Term, and Far-Term), as well as provide context and foundation from which evolution of the NAS can be explicitly understood, planned for, and realized. The NAS EA continues to mature into a comprehensive, multi-year, strategic business reference model and framework for improving and evolving the NAS from the current portfolio of fielded systems through 2025 and beyond. The structure and discipline of ongoing NAS EA development and analysis efforts provide data and information for NAS leaders to use in order to make informed and defendable decisions that support the vision of the Next Generation Air Transportation System (NextGen).

The NAS EA is currently composed of 31 products that collectively represent the As-Is, Mid-Term, and Far-Term (desired) "architecture descriptions" that describe the operations, enabling functions, and systems and services of the NAS and their relationships. The 31 products span four major perspectives (or views) that logically combine to describe the current and desired state, i.e., the All View (AV), Operational Views (OV), Systems/Services View (SV) and the Technical Standards View (TV). Each of the OV, SV, and TV depicts certain architecture attributes; some attributes bridge two or more views and provide integrity, coherence and consistency to the architecture. Additionally, one or more architecture products comprise a view.

Each timeframe (As-Is, Mid-Term, and Far-Term) is defined to be an integrated architecture when products and their constituent architecture data elements are developed such that elements defined in one view are the same (e.g., name, definition, values) as elements referenced in another view. The term "integrated architecture" refers to an architectural description that has integrated Operational, System/Service and Technical views. More specifically, there are common references linking the OV, SV and TV.

The integrated set of NAS EA views are an important tool to facilitate coordination among many stakeholders, to include concepts and requirements developers, planners, budgeters, systems engineers, and acquisition specialists. The architecture views clarify roles, boundaries and interfaces between NAS systems/services and influence participation in requirements generation, acquisition and resource allocation and interoperability.

This document presents the Far-Term NAS EA Operational Activity to Systems/Services Function Traceability Matrix (SV-5) and information related to its use, value, development methodology and associated next steps. While this document is a standalone product enabling the reader to understand, appraise, and use the Far-Term SV-5, the Far-Term Overview and Summary Information (AV-1) provides the scope and context of the Far-Term NAS EA as well as a listing of complementary products. All the architectural data elements and attributes, including terms and definitions used throughout this product and the entire NAS EA, can be found in the Far-Term Integrated Dictionary (AV-2).

2 Product Overview

This section describes the Far-Term SV-5, its value to the FAA, and anticipated uses by NAS stakeholders.

2.1 Product Description

The Far-Term Operational Activity to Systems/Service Function Traceability Matrix (SV-5) is an alignment of the operational activities to system/service functions, therefore identifying the transformation of an operational need into a purposeful action performed by a system or service. The Far-Term SV-5 is extended to depict the mapping of systems/services to system/service functions, and can be further extended to depict the mapping of capabilities (i.e., operational improvements) to operational activities, and operational activities to systems/services, and relate the capabilities to the systems/services that support them. Such a matrix allows decision-makers and planners to identify quickly stovepipe systems/services, redundant or duplicative systems/services, gaps in capability, and possible future investment strategies. Subsequently, the Far-Term NAS SV-5 allows:

- Users to trace functional system requirements to user requirements
- Users to trace solution options to requirements
- For the tracing of service functional requirements to user activities

See Section 4 for additional description and detail.

2.2 Product Use and Value

FAA stakeholders use the NAS EA for multiple purposes, including but not limited to the development of other architectural products, as part of related improvement efforts, or in support of mission activities and decision-making. The following table details how stakeholders use the Far-Term SV-5. This is not an exhaustive list, but is representative of the utility of this product.

Table 1: Architectural stakeholders and product use

Stakeholder	Product Use
Executives, Program Managers, Planners, etc.	▪ Informs planning and scheduling of operational sustainment and improvements by demonstrating the expected alignment of potential operational activities to functions ▪ Provides a mechanism to quickly determine which systems/services are performing or enabling certain activities. This product also supports the quick identification of stove-piped systems, redundant/duplicative systems, gaps in capability, and possible future investment strategies.
Systems Engineers, Requirements Analysts, Architects, etc.	▪ Supports the development and enhancement of other enterprise architectural products by highlighting gaps in capability. Specifically, the SV-5 provides a mechanism for analysis of activities that are not supported by automation. These gaps may be candidates for future AMS investments. To support programs, the SV-5 is also used to review mappings to identify operational shortfalls and identify candidates for automation enhancements or replacements. ▪ Provides a mechanism to identify functions that do not support operational activities. The functions are candidates for draw-down and/or retirement. ▪ Assists with the identification of activities that are not supported by automation, as well as functions that do not support operational activities which could serve as areas for future development and/or retirement ▪ Describes the linkage between operational requirements and appropriate technical requirements ▪ Provides a mapping to identify operational shortfalls, areas of redundancy, and candidates for automation enhancement/replacement
Budget Analysts, Cost/Benefit Estimators, etc.	▪ Provides a mechanism for analysis of activities, which are not supported by automation. The activity gaps and overlaps discovered may be candidates for future AMS investments and investment realignment.

3 Product Maturity

As the NAS evolves and NextGen and Far-Term concepts are refined, the Far-Term SV-5 will require updates to capture any changes to the enterprise. Edits or additions to activities from the Far-Term NAS OV-5 and/or functions from the Far-Term NAS SV-4 will be captured in an updated Far-Term SV-5 matrix.

3.1 Development Methodology

The Far-Term SV-5 is foundational to the NAS EA and has been developed following the Horizontal and Vertical Integration Strategy described in the NAS Integrated Systems Engineering Framework (ISEF) Appendix A. The Horizontal and Vertical Integration Strategy establishes a common set of architecture principles and a plan to enforce relationships and inter-dependencies between architecture elements, ensure consistency and transparency across the enterprise, and enable decision support. More specifically, horizontal integration ensures that products and their constituent data elements are developed such that architecture data elements defined in one product are consistently used and applied within and across peer products (e.g., same definition, association, relationship and

properties). Vertical integration is intended to connect or align similar Program-level architecture products and elements to their Enterprise counterpart to ensure a holistic top down/bottom up architectural representation.

The activity-to-function matrix is generated through architecture analysis performed by subject matter experts (SME) to identify system/service functions that support (or are used by) operational activities, indicated by an "X" in the cell. Additionally, up-leveling performed on the Far-Term SV-4 functional hierarchy has altered the most recent Far-Term SV-5 matrix. The up-leveling was completed in order to produce more standard system functions and to remove those that were repetitive based on the previous decomposition via data type. Therefore, the previous operational activities were mapped to the new set of system functions.

3.2 Next Steps

As the NAS evolves over time, the Far-Term SV-5 will require updates and maintenance to remain consistent with the enterprise. Should any system functions or services require alteration due to a change of future NAS capabilities or expected technology, an updated Far-Term SV-4 will be produced, requiring an update to the mapping of system functions/services to operational activities. Likewise, should the operational activities of a business process or mission require reshaping, the Far-Term SV-5 mapping will be updated to reflect those changes as well.

4 Far-Term Operational Activity to System/Services Function Traceability Matrix (SV-5)

This section presents the Far-Term SV-5 matrix used to capture Far-Term operational activity and system/service function alignment. The Operational Activity to System/Services Function Traceability Matrix links operational activities in the Far-Term OV-5 with system/service functions in the Far-Term SV-4.

Table 2: Far-Term Operational Activity to System/Services Function Traceability Matrix (SV-5)

	Operational Activity / System/Service Function	A1 Provide Traffic Services																				A2 Analyze Operations							A3 Manage NAS Resources																
		A1.1.1 Perform Separation	A1.1.2 Synchronize Aircraft	A1.1.3 Transfer Control Responsibility	A1.2.1 Issue Alerts and Advisories	A1.2.2 Brief Pilot	A1.2.3.1 Identify Overdue/ Unreported Aircraft	A1.2.3.2 Provide Search and Rescue Information	A1.2.3.3 Conduct Communications Search	A1.2.4.1 Identify Aircraft Emergency	A1.2.4.2 Provide Emergency Response Information	A1.2.5.1 Provide Location Assistance	A1.2.5.2 Provide Navigational Assistance	A1.3.1.1 Negotiate Flight Plan	A1.3.1.2 Manage Flight Information	A1.3.2.1 Generate Trajectory	A1.3.2.2 Activate Trajectory	A1.3.2.3 Monitory Trajectory Conformance	A1.3.3 Assign Procedure	A1.4.1 Establish Traffic Flow Constraints	A1.4.2 Assign Aircraft to Flow	A1.4.3 Manage Traffic Flow Schedule	A2.1 Assess Capacity and Demand	A2.2 Conduct Post Operations Analysis	A2.3.1 Establish Safety Risk Parameters	A2.3.2 Apply Safety Risk Parameters	A2.4 Analyze Security Risk	A2.5 Identify Environmental Impact	A2.6 Support Accident and Incident Investigation	A3.1.1.1 Characterize Airspace Problem	A3.1.1.2 Create Airspace Design Proposal	A3.1.1.3 Conduct Airspace Study	A3.1.1.4 Plan Implementation of Airspace Design	A3.1.2 Plan Operational Support Services	A3.1.3 Plan Maintenance Support	A3.2.1.1 Manage Airspace Capacity	A3.2.1.2.1 Negotiate Special Activity Airspace	A3.2.1.2.2 Approve Special Activity Airspace	A3.2.1.3 Respond to Airspace Restriction Request	A3.2.1.4 Resector Airspace	A3.2.2 Configure Systems and Services	A3.2.3 Allocate Workforce	A3.3.1 Monitor Resource Performance	A3.3.2 Respond to System and Service Degradation	A3.3.3 Perform Preventative Maintenance	A3.3.4 Support System Upgrades and Updates	A3.3.5 Maintain System Operation Information
1 Traffic Services	1.1.1 Support Flow Management Collaboration																			X	X	X		X										X												
	1.1.2 Assess Flow Situation																			X	X	X		X										X												
	1.1.3 Predict Delays				X	X								X		X			X	X	X	X	X	X	X					X	X	X		X												
	1.1.4 Predict Flow Constraint Non-conformance		X													X			X	X	X	X	X	X	X					X	X	X		X												
	1.1.5 Identify Airspace Security Issues	X	X	X	X	X					X			X		X	X		X	X	X	X	X	X	X	X	X		X	X	X	X		X												
	1.1.6 Manage Flow		X		X	X								X		X			X	X	X	X	X	X	X		X	X	X	X	X	X		X		X	X	X	X	X	X	X				
	1.1.7 Manage Sequencing Plans															X			X	X	X	X		X	X		X		X	X	X	X		X												
	1.1.8 Generate Flow Advisories				X	X								X						X									X																
	1.2.1 Project Short Term Trajectories	X	X	X				X	X							X	X	X	X			X			X	X	X		X																
	1.2.2 Predict Separation Conflicts	X	X	X													X		X					X	X	X	X		X	X				X												
	1.2.3 Detect Separation Violations	X	X	X													X		X					X	X	X	X		X	X				X												
	1.2.4 Assess Separation Constraints	X																							X	X																				
	1.2.5 Resolve Separation Problem	X																						X	X	X	X		X	X				X												
	1.2.6 Detect Abnormal Flight Behavior	X	X	X													X	X	X			X		X	X	X	X		X	X				X												

Operational Activity / System/Service Function	A1 Provide Traffic Services																				A2 Analyze Operations							A3 Manage NAS Resources																	
	A1.1.1 Perform Separation	A1.1.2 Synchronize Aircraft	A1.1.3 Transfer Control Responsibility	A1.2.1 Issue Alerts and Advisories	A1.2.2 Brief Pilot	A1.2.3.1 Identify Overdue/ Unreported Aircraft	A1.2.3.2 Provide Search and Rescue Information	A1.2.3.3 Conduct Communications Search	A1.2.4.1 Identify Aircraft Emergency	A1.2.4.2 Provide Emergency Response Information	A1.2.5.1 Provide Location Assistance	A1.2.5.2 Provide Navigational Assistance	A1.3.1.1 Negotiate Flight Plan	A1.3.1.2 Manage Flight Information	A1.3.2.1 Generate Trajectory	A1.3.2.2 Activate Trajectory	A1.3.2.3 Monitory Trajectory Conformance	A1.3.3 Assign Procedure	A1.4.1 Establish Traffic Flow Constraints	A1.4.2 Assign Aircraft to Flow	A1.4.3 Manage Traffic Flow Schedule	A2.1 Assess Capacity and Demand	A2.2 Conduct Post Operations Analysis	A2.3.1 Establish Safety Risk Parameters	A2.3.2 Apply Safety Risk Parameters	A2.4 Analyze Security Risk	A2.5 Identify Environmental Impact	A2.6 Support Accident and Incident Investigation	A3.1.1.1 Characterize Airspace Problem	A3.1.1.2 Create Airspace Design Proposal	A3.1.1.3 Conduct Airspace Study	A3.1.1.4 Plan Implementation of Airspace Design	A3.1.2 Plan Operational Support Services	A3.1.3 Plan Maintenance Support	A3.2.1.1 Manage Airspace Capacity	A3.2.1.2.1 Negotiate Special Activity Airspace	A3.2.1.2.2 Approve Special Activity Airspace	A3.2.1.3 Respond to Airspace Restriction Request	A3.2.1.4 Resector Airspace	A3.2.2 Configure Systems and Services	A3.2.3 Allocate Workforce	A3.3.1 Monitor Resource Performance	A3.3.2 Respond to System and Service Degradation	A3.3.3 Perform Preventative Maintenance	A3.3.4 Support System Upgrades and Updates	A3.3.5 Maintain System Operation Information
1.3.1 Support Capacity Management Collaboration																					X	X										X		X	X	X	X	X								
1.3.2 Manage Airspace Restrictions	X			X	X							X	X		X			X	X	X		X	X	X	X	X		X	X	X	X		X		X	X	X	X	X							
1.3.3 Manage SAA	X			X	X							X	X		X			X	X	X		X	X	X	X	X		X	X	X	X		X		X	X	X	X	X							
1.3.4 Manage Altitude Reservations	X			X	X							X	X		X			X	X	X		X	X	X	X	X		X	X	X	X		X		X	X	X	X	X							
1.3.5 Assess Airspace Situation				X	X								X		X			X	X	X	X	X	X	X	X	X		X	X	X	X		X		X	X	X	X	X							
1.3.6 Manage Capacity	X	X	X	X	X							X	X		X			X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X		X					
1.3.7 Generate Airspace Advisories				X	X								X															X						X		X	X								
1.4.1 Support Trajectory Negotiation															X			X																											
1.4.2 Project Long Term Trajectories		X	X				X	X							X		X	X			X	X	X	X	X	X		X					X												
1.4.3 Monitor Conformance		X	X				X	X							X	X	X						X	X	X	X		X					X												
1.4.4 Monitor Traffic Management Constraints															X			X						X																					
1.4.5 Assess Trajectory Constraints															X			X																											
1.4.6 Develop Trajectories															X								X	X		X		X					X												
1.4.7 Assess Procedure Applicability															X			X					X	X		X		X	X				X												

	Operational Activity / System/Service Function	A1 Provide Traffic Services																					A2 Analyze Operations							A3 Manage NAS Resources																
		A1.1.1 Perform Separation	A1.1.2 Synchronize Aircraft	A1.1.3 Transfer Control Responsibility	A1.2.1 Issue Alerts and Advisories	A1.2.2 Brief Pilot	A1.2.3.1 Identify Overdue/ Unreported Aircraft	A1.2.3.2 Provide Search and Rescue Information	A1.2.3.3 Conduct Communications Search	A1.2.4.1 Identify Aircraft Emergency	A1.2.4.2 Provide Emergency Response Information	A1.2.5.1 Provide Location Assistance	A1.2.5.2 Provide Navigational Assistance	A1.3.1.1 Negotiate Flight Plan	A1.3.1.2 Manage Flight Information	A1.3.2.1 Generate Trajectory	A1.3.2.2 Activate Trajectory	A1.3.2.3 Monitory Trajectory Conformance	A1.3.3 Assign Procedure	A1.4.1 Establish Traffic Flow Constraints	A1.4.2 Assign Aircraft to Flow	A1.4.3 Manage Traffic Flow Schedule	A2.1 Assess Capacity and Demand	A2.2 Conduct Post Operations Analysis	A2.3.1 Establish Safety Risk Parameters	A2.3.2 Apply Safety Risk Parameters	A2.4 Analyze Security Risk	A2.5 Identify Environmental Impact	A2.6 Support Accident and Incident Investigation	A3.1.1.1 Characterize Airspace Problem	A3.1.1.2 Create Airspace Design Proposal	A3.1.1.3 Conduct Airspace Study	A3.1.1.4 Plan Implementation of Airspace Design	A3.1.2 Plan Operational Support Services	A3.1.3 Plan Maintenance Support	A3.2.1.1 Manage Airspace Capacity	A3.2.1.2.1 Negotiate Special Activity Airspace	A3.2.1.2.2 Approve Special Activity Airspace	A3.2.1.3 Respond to Airspace Restriction Request	A3.2.1.4 Resector Airspace	A3.2.2 Configure Systems and Services	A3.2.3 Allocate Workforce	A3.3.1 Monitor Resource Performance	A3.3.2 Respond to System and Service Degradation	A3.3.3 Perform Preventative Maintenance	A3.3.4 Support System Upgrades and Updates	A3.3.5 Maintain System Operation Information
	1.4.8 Evaluate Trajectories															X								X	X		X		X					X														
	1.4.9 Derive Flow Management Schedules		X													X				X	X	X		X					X					X														
2 Information Services	2.1 Aeronautical Information Management	X	X	X	X	X						X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
	2.2 Flight & State Data Management	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X		X		X	X	X	X	X		X					
	2.3.1 Track Airborne Aircraft	X	X	X	X			X	X				X			X	X	X	X			X	X	X	X	X	X		X			X		X						X		X					
	2.3.2 Track Ground Vehicles	X	X	X	X								X			X	X	X	X			X	X	X	X	X	X		X			X		X													
	2.3.3 Integrate Surveillance Data	X	X	X	X			X	X				X			X	X	X	X			X	X	X	X	X	X		X			X		X						X		X					
	2.4.1 Integrate Weather Data	X	X	X	X	X								X		X			X	X	X	X	X	X	X	X			X	X		X		X		X				X		X					
	2.4.2 Maintain Weather Information	X	X	X	X	X								X		X			X	X	X	X	X	X	X	X			X	X		X		X		X				X		X					
	2.4.3 Analyze Climate Data for Strategic Planning																						X	X						X		X		X													
	2.4.4 Perform Probabilistic Forecasting	X	X	X	X	X								X		X			X	X	X	X	X	X	X	X			X					X		X				X		X					
	2.4.5 Translate Weather Information	X	X	X	X	X								X		X			X	X	X	X	X	X	X	X			X	X		X		X		X				X		X					
	2.4.6 Generate Weather Products	X	X	X	X	X								X		X			X	X	X	X	X	X	X	X			X	X		X		X		X				X		X					
	2.4.7 Generate Weather Advisories				X	X								X															X																		

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		A1.1.1 Perform Separation	A1.1.2 Synchronize Aircraft	A1.1.3 Transfer Control Responsibility	A1.2.1 Issue Alerts and Advisories	A1.2.2 Brief Pilot	A1.2.3.1 Identify Overdue/ Unreported Aircraft	A1.2.3.2 Provide Search and Rescue Information	A1.2.3.3 Conduct Communications Search	A1.2.4.1 Identify Aircraft Emergency	A1.2.4.2 Provide Emergency Response Information	A1.2.5.1 Provide Location Assistance	A1.2.5.2 Provide Navigational Assistance	A1.3.1.1 Negotiate Flight Plan	A1.3.1.2 Manage Flight Information	A1.3.2.1 Generate Trajectory	A1.3.2.2 Activate Trajectory	A1.3.2.3 Monitory Trajectory Conformance	A1.3.3 Assign Procedure	A1.4.1 Establish Traffic Flow Constraints	A1.4.2 Assign Aircraft to Flow	A1.4.3 Manage Traffic Flow Schedule	A2.1 Assess Capacity and Demand	A2.2 Conduct Post Operations Analysis	A2.3.1 Establish Safety Risk Parameters	A2.3.2 Apply Safety Risk Parameters	A2.4 Analyze Security Risk	A2.5 Identify Environmental Impact	A2.6 Support Accident and Incident Investigation	A3.1.1.1 Characterize Airspace Problem	A3.1.1.2 Create Airspace Design Proposal	A3.1.1.3 Conduct Airspace Study	A3.1.1.4 Plan Implementation of Airspace Design	A3.1.2 Plan Operational Support Services	A3.1.3 Plan Maintenance Support	A3.2.1.1 Manage Airspace Capacity	A3.2.1.2.1 Negotiate Special Activity Airspace	A3.2.1.2.2 Approve Special Activity Airspace	A3.2.1.3 Respond to Airspace Restriction Request	A3.2.1.4 Resector Airspace	A3.2.2 Configure Systems and Services	A3.2.3 Allocate Workforce	A3.3.1 Monitor Resource Performance	A3.3.2 Respond to System and Service Degradation	A3.3.3 Perform Preventative Maintenance	A3.3.4 Support System Upgrades and Updates	A3.3.5 Maintain System Operation Information
3 Mission Support Services	3.1.1 Support Capacity Development Collaboration																							X						X	X	X	X														
	3.1.2 Identify Capacity Needs																							X						X	X	X		X													
	3.1.3 Evaluate Obstacles																							X	X					X	X	X		X													
	3.1.4 Develop Capacity Improvement Plans																							X	X		X	X		X	X	X	X	X	X												
	3.1.5 Develop Procedures																							X	X		X	X		X	X	X	X	X													
	3.1.6 Evaluate Airspace Capacity Improvement Plan																							X	X		X	X		X	X	X	X														
	3.1.7 Generate Adaptation Data																							X	X		X	X		X	X	X	X	X	X												
	3.2.1 Support Safety Collaboration																							X	X	X								X													
	3.2.2 Perform Safety Analysis																							X	X							X		X													
	3.2.3 Perform Safety Monitoring	X	X	X												X	X		X	X	X	X	X	X	X	X			X			X		X													
	3.2.4 Manage Safety Data	X	X	X												X	X		X	X	X	X	X	X	X	X			X			X		X													
	3.3.1 Manage Post Operations Data						X	X	X											X	X		X	X	X		X	X	X	X	X	X		X	X	X				X		X				X	
	3.3.2 Perform Operational Analysis																			X	X		X	X	X		X	X	X	X	X	X		X	X	X	X	X	X	X		X				X	
	3.3.3 Perform Operational Modeling																			X	X		X	X	X		X	X	X	X	X	X		X		X	X	X	X	X		X				X	

Operational Activity / System/Service Function	A1 Provide Traffic Services																					A2 Analyze Operations							A3 Manage NAS Resources																
	A1.1.1 Perform Separation	A1.1.2 Synchronize Aircraft	A1.1.3 Transfer Control Responsibility	A1.2.1 Issue Alerts and Advisories	A1.2.2 Brief Pilot	A1.2.3.1 Identify Overdue/ Unreported Aircraft	A1.2.3.2 Provide Search and Rescue Information	A1.2.3.3 Conduct Communications Search	A1.2.4.1 Identify Aircraft Emergency	A1.2.4.2 Provide Emergency Response Information	A1.2.5.1 Provide Location Assistance	A1.2.5.2 Provide Navigational Assistance	A1.3.1.1 Negotiate Flight Plan	A1.3.1.2 Manage Flight Information	A1.3.2.1 Generate Trajectory	A1.3.2.2 Activate Trajectory	A1.3.2.3 Monitory Trajectory Conformance	A1.3.3 Assign Procedure	A1.4.1 Establish Traffic Flow Constraints	A1.4.2 Assign Aircraft to Flow	A1.4.3 Manage Traffic Flow Schedule	A2.1 Assess Capacity and Demand	A2.2 Conduct Post Operations Analysis	A2.3.1 Establish Safety Risk Parameters	A2.3.2 Apply Safety Risk Parameters	A2.4 Analyze Security Risk	A2.5 Identify Environmental Impact	A2.6 Support Accident and Incident Investigation	A3.1.1.1 Characterize Airspace Problem	A3.1.1.2 Create Airspace Design Proposal	A3.1.1.3 Conduct Airspace Study	A3.1.1.4 Plan Implementation of Airspace Design	A3.1.2 Plan Operational Support Services	A3.1.3 Plan Maintenance Support	A3.2.1.1 Manage Airspace Capacity	A3.2.1.2.1 Negotiate Special Activity Airspace	A3.2.1.2.2 Approve Special Activity Airspace	A3.2.1.3 Respond to Airspace Restriction Request	A3.2.1.4 Resector Airspace	A3.2.2 Configure Systems and Services	A3.2.3 Allocate Workforce	A3.3.1 Monitor Resource Performance	A3.3.2 Respond to System and Service Degradation	A3.3.3 Perform Preventative Maintenance	A3.3.4 Support System Upgrades and Updates	A3.3.5 Maintain System Operation Information
3.4.1 Support Maintenance Collaboration																							X											X						X	X	X	X	X	X	X
3.4.2 Monitor Service Status	X	X	X	X	X								X		X	X		X	X	X	X	X	X	X	X	X		X	X	X	X		X	X						X	X	X	X	X	X	X
3.4.3 Reconfigure System																						X	X	X		X		X	X	X	X		X	X						X		X	X	X	X	X
3.4.4 Adjust System Parameters																							X	X		X		X						X								X	X	X	X	X

Appendix A: Acronyms

AIM	Aeronautical Information Management
AV	All View
EA	Enterprise Architecture
NAS	National Airspace System
OV	Operational View
SV	Systems/Services View
TV	Technical Standards View