



FAA Configuration Management Program Plan

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1 Introduction

1.1 Purpose

The NAS Configuration Management Authority is responsible for ensuring the conduct of effective configuration management (CM) practices for the Agency. This CM Program Plan (CMPP) sets forth the current initiatives designed to effect a CM discipline within the agency that:

- *supports planning, life cycle management and decision making for FAA systems;*
- *satisfies stakeholder needs with accurate, current information throughout the NAS life cycle;*
- *ensures subsystem traceability to the NAS architecture;*
- *results in reduction in the cost of developing, deploying, operating and maintaining ATC systems and FAA facilities; and*
- *is consistent with evolving FAA business practices.*

The CMPP provides a status on, and details the process improvement initiatives and the associated enhancement activities that must be performed in order to achieve the FAA CM vision and meet the associated ATS and ARA goals and outcomes. Additionally, it details the resource required to meet those goals and achieve the vision

1.2 Scope

This plan outlines the enhancement activities required to develop a single, agency CM approach, integral to operations, maintenance and acquisition. It does not include a description of the day-to-day recurring CM tasks. These activities will be captured in the NAS CM process description document, which is due out in draft form in late Spring/early Summer 2002.

1.3 Management of Plan

The plan represents the tasks to be accomplished by the CM community. The plan is developed by the NAS Configuration Management organization with Configuration Management Core Team (CMCT), or designated group support. The CM Authority updates the plan annually to capture the changes in the planned activity.

1.4 Roles and Responsibilities

The following roles and responsibilities are specific to this CMPP. They apply to the information detailed herein and do not include day-to-day activities.

NAS CM Authority

Responsible for the approval of Agency CM Policy and Procedures; ensuring continued top-level management support of the NAS CM Program and associated initiatives; represent Agency CM at the NAS CCB.

NAS CM Organization

NAS Infrastructure CM, CM of Programs and Facilities: Implement and maintain the Agency CM program. Provide for Agency CM policy and procedures; provide guidance for CM planning, and plan and conduct CM training, practice CM Knowledge Management; develop, implement and maintain CM infrastructure and automated CM tool and tool suite

	operation; and monitor and oversee Agency CM activities.
Integrated Product Team/Business Units	Participate in Agency CM initiatives and support CM information integration activities.
Configuration Management Core Team	As CM Practitioners, share CM and related knowledge to enable an effective and cohesive Agency CM system.

2 NAS Configuration Management Vision

The role NAS Configuration Management plays in the agency’s organizational structure is that of enabling Business Unit (BU)/Integrated Product Team (IPT) operations through CM guidance, oversight and monitoring. This activity includes the communication of policy and procedures, provision of guidelines and templates for standard CM documentation, which includes CM Plans, statements of work, CM audit plans, CDRL development standards and guidelines. Core business activities such as planning and managing enterprise CM policy, procedures and planning documentation; conducting and facilitating the NAS Configuration Control Board (CCB); maintaining the enterprise CM infrastructure which includes knowledge/information management, CM support tool(s), the document control center (DCC) and the Master Configuration Index (MCI). The NAS Configuration Management organization continues to ensure and provide for consistent application of CM across the agency and adherence to policy.

In order to make the FAA CM vision a reality there must be a single, agency CM approach, that is integral to operations, maintenance and acquisition. A strong CM position within the Air Traffic Organization (ATO) must also be realized in order to ensure a successful enterprise-wide CM program. The successful development and implementation of this single, agency CM approach hinges upon the realization of the following CM initiatives:

- Establish and operate a strong CM organization,
- Perform a consistent and balanced application of process and policy;
- Develop a skilled workforce and technology to effectively perform CM; and
- Obtain and maintain commitment from all levels of the organization.

2.1 Accomplishments

This section provides status on enhancement activities detailed in the CMPP dated January 2000.

2.1.1 Establish and Operate a Strong CM Organization

The NAS CM organization now reports to the offices of Air Traffic Services and Research and Acquisition. Remaining activity to ensure strong agency CM includes, at least reaching resource goals identified in the CMPP dated January 2000 and detailed in Appendix A of this plan. In addition, maintaining a schedule of quarterly reviews with our parent organizations would support the communication required to promote a proactive CM culture within the agency and support a strong NAS CM organization.

2.1.2 Perform Consistent and Balanced Application of Process and Policy

Through the development of, the CM Authority has completed development and issuance of life-cycle policy and processes and provided a key vehicle for assuring consistent CM. The National

CM Procedures have been incorporated into FAA Order 1800.66. Continuous policy and process improvements are vital to the consistent and balanced of application of CM.

2.1.3 Centralized Automated CM Information System

The groundwork for a centralized automated CM system has been established. The CM Concept of Operation is in its final version and will be made available in the near term. Planning for the CM Web Portal, which will leverage the pb-ICE to the maximum extent possible, has been completed and is scheduled to be completed by 3Q 2002. Requirements for the integrated, automated Documentation Control Center (DCC) now known as the Virtual DCC (VDCC) have been developed and will go out for review in 2002. Additionally, WebCM has been selected for the Automated CM tool. Testing was completed using the Design Strategy, which defines the strategic direction and the desired future CM information management environment.

2.1.4 Strategy for incrementally designing and establishing the CM Information Architecture

The CM Information Architecture Concept of Operations and Design Strategy define the strategic direction and desired future FAA CM information management environment. It documents the “as-is” CM information environment, defines the vision, goals, objectives, links documented requirements to ongoing initiatives and provides a base context to meet corporate CM information needs.

3 Implementation Plan

This implementation approach builds on the completed Policy and Process work, which includes the completed National CM Procedures. The primary focus is on achieving standardization and consistency of CM processes and products that will be performed and measured. To support performance and measurement, maintaining commitment from top-level management and implementing technology enhancements (including technology refresh) will serve as enablers to achieve a robust CM system.

Cross-functional teams (similar to those used to develop the policy and process) will contribute to the development of the procedures and support the requirements for the technology enhancements. The CM Core Team, or designated activity, will continue to guide this development and integrate work products.

Further efforts in identifying and securing adequate resources, design of the overall information architecture and intensified education and training will ensure that the overall CM process and its application to individual programs and organizations has reached iCMM level 3 compliancy, which includes standardized process(es), use of defined and established process(es), and utilizes an established process improvement methodology.

3.1 Enhancement CM Activities

This section addresses the CM initiatives, which when completed will create an effective CM culture, thus facilitating the achievement of the FAA CM vision. Section 4, Measuring Success, provides sample metrics and sample vehicles to be used for collecting measurements of progress and success.

3.1.1 Maintain and Operate a Strong CM Organization

In the constantly evolving environments of the Agency and Industry, CM must ensure the top-level Agency management support and determine the process for maintaining that commitment to enable operation of a strong CM organization. The CM Authority plans to:

- Work towards ensuring CM is positioned at an effective level within the pending Air Traffic Organization/Performance –Based Organization (ATO/PBO)
- Ensure quarterly CM program status reviews with top-level management
- Continue effective communication of the CM discipline and its benefits across the Agency
- Standardize CM responsibilities and practices across the Agency

3.1.2 Plan for Consistent and Balanced Application CM

The performance of consistent and balanced application of process and policy is essential to ensure integrity of the NAS baseline and its related processes. Planning for CM throughout the lifecycle of NAS systems and products is key to achieving effective CM. An important means of accomplishing this is to ensure that CM requirements are instituted at the inception of new programs and remain in place throughout the lifecycle of those programs. To support CM planning activities, a single automated CM information system supporting the updated change management process must be implemented. Additionally, related processes and their relationship to the CM process have been identified to support planning and impact analysis for future enhancements. To implement this enhancement, the following products are planned:

- CM Procurement Replacement Guidance and Standard CM Templates (RD, SOW, CM CDRLs, CM Plans, Audit Plans)
- Standard Monitoring Criteria to Oversee Contractor Configuration Identification
- Centralized Automated CM Information System
- CM Metrics Strategy
- CM Effectiveness and Quality Measures Action Plan
- CM Policy and Process Update/Improvement

3.1.3 Implement Known Process Improvements

There are a number of activities underway to address known deficiencies in the current CM system. These initiatives will be integrated into the National Procedures upon completion. The initiatives include:

- Updating the NAS Change Proposal (NCP) Form
- Providing standard CM templates
- Supporting the Modification Tracking Initiative
- Identifying measures and metrics
- New Requirements Process
- Clarifying relationship of NAS CCB and JRC
- Review current operations for continued process improvement
- Update FAA Order 1800.66

3.1.4 Develop Skilled Workforce

Developing a skilled workforce addresses the educational needs of CM stakeholders and is integrated with other agency initiatives. Business Units (BUs)/Integrated Product Teams (IPTs) and Regional personnel benefit from this program because it supports an agency-wide

understanding of NAS guidance, best practices, lessons learned, current processes, and technology solutions for configuration management.

This effort targets executives, management, CM practitioners and general users. It consists of both formal and informal methods. Formal training includes the development and implementation of training modules or communication vehicles such as briefing materials. Commercial or government sources may be utilized to develop and conduct formal training. Informal training is accomplished through newsletters, teleconferences, WEB based information and CM migration assistance. This effort includes use of the CM web site maintained by ACM.

There are three levels of workforce training: (1) CM Awareness (Understanding), and (2) Basic CM (Comprehension), and Advanced CM (Applied Knowledge), defined as follows:

- (1) **CM Awareness (Understanding)** Provides an overview of the basic philosophy and practices, which comprise the life cycle CM process. Focuses on the mission, goals, and objectives of CM along with the policy and procedures for implementation. Discusses how to use CM as a tool to accomplish organizational objectives. Discusses the value of CM and the appropriate use and interpretation of measurement. Geared to managers, general users, and CM practitioners.
- (2) **Basic CM (Comprehension)** Covers basic principles (configuration identification, configuration control, status accounting, CM planning, verification and audits, and data management and best practices of CM process as outlined in FAA Policy, guidelines, and commercial practices. Geared toward CM practitioners and general users, CM managers.
- (3) **Advanced (Applied Knowledge)** Provides detail on the basic principles of CM for on-the-job application. Hands on practice for writing CM plans, performing audits, and identifying configuration items etc. Geared toward CM practitioners.

3.1.5 *Develop Technology to Effectively Perform CM*

The FAA will establish and maintain a standards-based information architecture. The underlying strategy will be to “design a little, build a little.” That is, the CM Information Architecture will be incrementally designed, built, and implemented in a modular fashion. The Architecture’s components shall relate to the CM business functions, as defined in the FAA CM life-cycle process model, the FAA CM Policy and CM procedures.

Each architecture module will address all of the four major CM information architecture components, including an enterprise business model, data architecture, applications architecture and technology architecture.

- **Enterprise Business Model.** Identifies the functions of the CM business. Building on the National Procedures, to support further information modeling and analysis, that high-level process flow will be further decomposed to facilitate the documentation/analysis of information flows and the development of data models. Over time, the collection of workflow modules and the Life Cycle CM Process Diagram will form the FAA’s CM Enterprise Business Model.

- **Data Architecture.** The CM data architecture will identify and define the major kinds of data that support the CM business functions documented in the Enterprise Business Model. The data architecture will consist of data entities, each of which has attributes and relationships with other data entities. This information will be published in the corporate CM data dictionary, which will serve as a critical information source for agency information system designers. It will define a core set of corporate CM data that will be maintained consistently in agency CM databases and systems to ensure data sharing across databases and systems. Issues such as the future role of the DCC and Program Support Libraries (PSLs), standard Contractor Deliverables and others will be addressed.
- **Applications Architecture.** The CM applications architecture will define the major kinds of system applications needed to manage CM data and support life cycle CM activities. This architecture defines what applications will do to manage data and provides information to CM stakeholders. Further analysis will be conducted to define/refine current applications, design/build new applications and design/build interfaces between applications to facilitate data access, processing and sharing.

As the Enterprise Business Model evolves, opportunities to leverage information systems and technology will be considered. Examples will include the tailoring of the automated tool (e.g., special input and output screens), metrics collection, status reporting and other applications. Data requirements from other supporting systems will be defined in detail, supporting the design of needed interfaces with the Modification Tracking activities lead by AOP, the Asset Supply Chain Management (ASCM) system now in the early requirements phase, and the NAS Architecture database, and others as appropriate.

- **Technology Architecture.** The CM technology architecture defines the major kinds of technologies or platforms needed to provide an environment for CM applications that are managing data in a shared environment. The CM technology architecture will also leverage the existing FAA installed technology base, and approved FAA desktop and other systems standards where applicable.
- **Implement an Automated CM Tool.** A readily available commercial-off-the-shelf (COTS) product, WebCM, has been selected as the automated CM tool based on its meeting a majority of the CM automation requirements and has been successfully used as the automated CM tool for the En Route IPT. WebCM, after completion of tailoring to meet NAS CM organization requirements, will be validated and implemented.
- **Enhance the CM Corporate Web Page.** The CM web page will be restructured to improve information dissemination, prepare for automated tool interface and position the CM organization to leverage related web activities throughout the FAA. The CM Web Page is a vital component of the target technology architecture.
- **Document management strategy.** A CM document management corporate strategy will be developed that defines roles, responsibilities, desired outcomes and a vision of the future. The goal is to define and then establish a corporate, distributed infrastructure in the form of the Virtual Documentation Control center (VDCC), which will ensure that CM documentation is properly maintained and that needed access is provided to CM stakeholders in a timely, cost effective manner.

- ***Ensure Integration with related FAA information management initiatives.*** Participate in and contribute to related agency initiatives to ensure that CM information requirements are addressed (i.e., facilitate integration with ACM-sponsored efforts), promote CM information management best practices and continue to contribute to the development of a corporate CM data dictionary and implementation of CM data standards.

3.1.6 Obtain Commitment from Associates and All Levels of the Organization

The activities associated with obtaining commitment from the associates and all levels of the organization is an ongoing activity; however, this plan will focus on establishing the criteria and measures to assess FAA commitment to CM. The work is focused in three primary areas:

- (Day-to-Day) Management Procedures for the integrity of the CM process
- Resource Analysis and Modeling
- Commitment Measures

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4 Measuring Success

Measuring the success of the enhancements described in this plan is a two-part activity. The initial success measures focus on the implementation of this plan. The initial success measures are:

- Approval of this plan by May 3, 2002 and
- Ensure existing resources available to support the activities outlined in this plan.

Once the tasking of this plan has been completed, success can be measured in terms of measurable improvements (quantity and quality) in the CM system. Specific effectiveness measures will be developed by the CMCT (section 3.2.2); however, *sample* CM measures are listed below to provide insight into the types of measures that could be collected:

CM Practitioners working in accordance with approved policy, process and procedures

- Percentage of Documented OPI Procedures/Variations Identified
- Acquisitions resulting in operationally suitable CM and CM related deliverables (standardized contract language)
- Reduced Time/Cost to Implement/Transition to Operations
- Percentage of Baselines (systems & facilities) established and maintained
- Percentage of changes processed without rework (quality casefiles/NCPs)
- Percentage of approved changes which can be traced to the technical architecture, to the implementing vehicle (SSD, EEM, SPB, etc.), and implementation verified

Trained CM Practitioners and Management Support

- Percentage of CM Practitioners who have completed awareness, basic and advanced training (see Section 3.3.1)
- CM included in performance plans of all LOB represented on the CMSG

Accurate CM information accessible

- Percentage of ²CM documentation available online
- Percentage of CM documentation online and accessible by the LOBs represented on the CMSG

The following details the key products and expected, measurable outcomes associated with the enhancement activities.

<i>Maintain and Operate a Strong CM Organization</i>	
Current Challenges (i.e., why is this enhancement activity necessary)	Key Products and Measurable Outcomes (i.e., what will it look like when its fixed)
<ul style="list-style-type: none"> • Placement of and role of the CM organization within the ATO is uncertain • Lack understanding of CM and its benefits at the management and practitioner level • Need to ensure Standardized Responsibilities • Promulgation of separate CM tools 	<ul style="list-style-type: none"> • Cross-functional Agency Direction • Life-cycle Approach to Issue Resolution and Product Integration • Quarterly Reviews of Agency CM
<i>Plan for Consistent and Balanced Application CM</i>	
Current Challenges (i.e., why is this enhancement activity necessary)	Key Products and Measurable Outcomes (i.e., what will it look like when its fixed)

<ul style="list-style-type: none"> • Lack of Baseline Integrity • Lack of a Single Automated CM Information System • Need to Streamline and Simplify the Change Management Process • Lack of Planning for CM During the Operational Phase • Lack of Definition of Relationship between CM Process and Related Processes (i.e., JRC, Logistics, 2nd Level Ops, etc.) • Need Standardized Roles and Responsibilities 	<ul style="list-style-type: none"> • Life Cycle Policy and Process (Completed) • National CM Procedures (Completed) • CM Procurement Replacement Guidance and Standard CM Templates (RD, SOW, CM CDRLs, CM Plans, Audit Plans) • Standard Monitoring Criteria to Oversee Contractor Configuration Identification • Centralized Automated CM Information System • Strategy for Configuration Management of Technical Interfaces • CM Metrics Strategy • CM Effectiveness and Quality Measures Action Plan
<p><i>Develop and Maintain Skilled Workforce and Technology to Effectively Perform CM</i></p>	
<p>Current Challenges (i.e., why is this enhancement activity necessary)</p> <ul style="list-style-type: none"> • Need Responsible Experts • Need Complete and Integrated Information Source • Need On-line Access to Information • Status Accounting Information Doesn't Support all Organizational Needs • CM Tools are being Developed (Procured) and Implemented Without Assessing Agency Impacts and Agency CM requirements 	<p>Key Products and Measurable Outcomes (i.e., what will it look like when its fixed)</p> <ul style="list-style-type: none"> • Training Plan and Executable Modules (Based on Agency Requirements Survey) • CM Information Architecture Concept of Operations • Workflow Design Documentation, including the NCP Workflow, Data Design and Functional Design Documents • Cradle-to-Grave Automated NCP Tool (Process Improvements Based on Pilot Operations) • CM Document Strategy • CM Corporate Web Page (Revision 1) • CM Business Model • Data Architecture • Applications Architecture • Technical Architecture

<i>Obtain Commitment from Associates and All Levels of the Organization</i>	
<p>Current Challenges (i.e., why is this enhancement activity necessary)</p> <ul style="list-style-type: none"> • Lack understanding of CM and its benefits at the Management and Practitioner Level • Lack of Resources and Budget for CM • Need Responsible Experts 	<p>Key Products and Measurable Outcomes (i.e., what will it look like when its fixed)</p> <ul style="list-style-type: none"> • CM Management Procedures (including Monitoring, Oversight and Evaluation) • Performance Plan Criteria • Evidence of the Inclusion of CM in Performance Plans CM Cost Factor for Cost Estimating Under Investment Analysis • Life Cycle CM Position Descriptions

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APPENDIX A RESOURCES AND RISKS

This section addresses the CM activities performed by NAS Configuration Management organization resources in support of NAS Infrastructure CM and associated enterprise data, and CM of Programs and Facilities. These activities support the initiatives that must be in place in order to implement enhancements detailed in Section 3.2.

1. **NAS Infrastructure CM:** NAS Configuration Management organization, augmented by the CMCT and cross-functional working groups.
2. **CM of Programs and Facilities:** BUs/IPTs, Solution Providers, AT, AF, and Regional Offices performing CM.

An effective CM culture within the FAA is key to avoiding inconsistent performance of CM. Overall, CM is not being performed at an acceptable level, which has caused a lack of integrity of the baseline information and major degradation to the “agency” CM process. Upon successful implementation of enhancement activities our agency will execute CM as described in Section 3..

NAS Infrastructure CM

NAS Infrastructure CM is defined by the activities required to maintain the overall integrity of the CM process, maintain the NAS level baselines, provide visibility and traceability between the NAS level, product and operational baselines, and ensure consistent application of the CM discipline throughout the FAA. Its functions are to manage the CM process for the Agency; develop/issue policy and standardize CM processes and procedures; monitor, evaluate, report, provide corrective guidance, and follow-up to ensure CM is meeting Agency needs; serve as focal point for resolution of CM issues; provide support to BU/IPTs through liaisons; and provide continuous improvement of CM for the Agency.

CM of Programs and Facilities

The role the NAS CM organization in the configuration management of programs and facilities is defined by the activities required to: ensure awareness of CM policy and procedures; provide training (policy, process, automated tool); create a liaison role to support, oversee and monitor Business Unit/IPT CM activities; and develop and provide tools to promote standard CM practices (e.g., templates for standard CM documentation).

The resources currently in place to complete the recurring activities are described below in the following Table A.1-1 and Table A.1-2

**APPENDIX A
RESOURCES AND RISKS**

Table A.1-1: NAS Infrastructure CM

Activity	ACM CM Resources	Non-ACM CM Resources
Plan and Manage CM Activities <ul style="list-style-type: none"> • Plan/Coordinate Agency CM Activities • Report Agency CM Status • Execute ACM Outreach • Perform Product Integration and Quality Control 	NAS CM Organization	⁵ CMCT ⁶ CMSG
Maintain CM Infrastructure <ul style="list-style-type: none"> • Maintain Policy, Process and Procedures • Maintain Links to External Processes and Products • Maintain MCI • Operate Control Desk • Provide CCB Support • Operate DCC 	NAS CM Organization	
Operate ACM Information Systems <ul style="list-style-type: none"> • Automated CM System Support • Maintain Website • Monitor Related Initiatives • Manage CM Information Architecture 	NAS CM Organization	
Perform Monitor and Oversight Activities <ul style="list-style-type: none"> • Assess Agency Needs (Education, Problem Areas, etc.) • Implement Process Improvement Findings • Plan, Manage and Execute Agency CM Training 	NAS CM Organization	

APPENDIX A RESOURCES AND RISKS

Table A.1-2: CM of Programs and Facilities (TO BE INSERTED)

The resources required to complete *the enhancement* activities described in section 3 (along with CMCT support) are listed in Table A.2-1 – these numbers **DO NOT** represent FAA day-to-day CM activities. These numbers do not include the work associated with supporting the NCP Tool Pilot, as this effort is a part of performing day-to-day change management and status accounting.

Table A.1.3 Resources Required to Enhance CM

Organization	CMSG FTE ⁷			CMCT FTE ⁶			Practitioner FTE ⁶		
	1999	2000	2001	1999	2000	2001	1999	2000	2001
AAR	37.6	20.8	20.8						
ACM	37.6	20.8	20.8	2553	3157	3216	16911	15114	11401
ACT-200	37.6	20.8	20.8						
ACT-300	37.6	20.8	20.8						
ACT-400	37.6	20.8	20.8				77	184	42
AIR-500	37.6	20.8	20.8						
AIO-2	37.6	20.8	20.8						
AML	37.6	20.8	20.8	135	270	188	132	350	42
⁸ AND (300,400,500, 700)	37.6	20.8	20.8	159	302	188	141	364	42
ANI	37.6	20.8	20.8	135	270	188	86	32	
ANS	37.6	20.8	20.8	135	270	187	119	320	42
AOP-1000	37.6	20.8	20.8	136	281	188	163	358	42
AOS-200(AOS-1 for CMSG)	37.6	20.8	20.8				220	373	42
AOS-500				135	270	188	172	342	42
AOZ-1	37.6	20.8	20.8						
ARN-1	37.6	20.8	20.8						
ARS				135	270	187	24	136	
ARU-1	37.6	20.8	20.8						
ARX-1	37.6	20.8	20.8						
ASD-100	37.6	20.8	20.8				24	132	
ATP-1	37.6	20.8	20.8						
⁹ AUA (200,300,400,600)	37.6	20.8	20.8	160	285	188	160	343	42
Regions	37.6	20.8	20.8				341	842	125

A key risk to completing these tasks is the availability of the resources presented above. Additional risks to the success of this plan are:

- **Culture**
 - Ability of FAA to respond to an organization with dual accountable
 - Working group members may not be able to shed organizational biases and think globally.
 - Management and CM Stakeholder Commitment
 - Unionization of employees

⁷ Based on the number of hours/year per organization (1 year = 2080 hours)

⁸ CMSG numbers apply to each AND division; CMCT and Practitioner numbers are spread across organization

⁹ CMSG numbers apply to each AUA division; CMCT and Practitioner numbers are spread across organization

APPENDIX A RESOURCES AND RISKS

- ***Procedural***
 - Legal/Contractual/Procedural barriers associated with implementing procurement standards
 - The production of National Procedures in parallel (rather than in series) has a potential to make all disjointed and fragmented
 - Lack of FAA methodology to resolve (and accept resolution) of process, policy, and procedures which conflict with existing FAA orders
- ***Technology***
 - Continuing to spend funds on technology without an agency perspective (i.e., paying for duplicative capabilities, etc.)
 - Not having an automated CM Tool that the FAA would use
 - The implementation of an appropriate CM Tool (or Tools)
- ***Cost***
 - Additional costs associated with developing and implementing procedures and guidance may not be fully appreciated as there is no current way to quantify the cost of not implementing
 - Moving to a standard identification system may impose extensive costs on replacing existing identification systems
 - Funding for contractor provided training

**APPENDIX B
SCHEDULES**

Table B-1.1: Implement Process Improvements Tasks

Start	Target Complete	Task Description	Participants
12/06/99	01/19/00	Develop Standard CM Templates (including but not limited to) <ul style="list-style-type: none"> • FRD • SOW • CM CDRLs • CM Plan • Audit Plans 	ACM, AUA, AND
01/20/00	02/18/00	Review Standard CM Templates	CMCT, AML, ANS, AMA, Regions (3)
06/13/00	09/25/00	Develop Standard Monitoring Criteria to Oversee Contractor Configuration Identification <ul style="list-style-type: none"> • Part, revision and version numbers • Serial and lot numbers • Marking and labeling of items • Embedded identifiers in source, object, and firmware code • Superceding parts (non-interchangeable conditions) • Documentation and engineering release systems 	AOP, ACM, AML, AND, AUA, AOS, ANS
07/26/99	10/29/99	Develop CM Link to Modification Tracking Program.	Mod Tracking Work Group CM Participants
01/03/00	12/29/00	Develop Strategy for Configuration Management of Technical Interfaces <ul style="list-style-type: none"> • NAS Interfaces, Technical Architecture, and JRC Decisions • Interface Control Documentation • Interface Control Working Groups • Requirements Traceability 	AOP, ACM, ANS, AML, AND, AUA, Regions (3), AOS, ARS
05/23/00	08/14/00	Develop CM Effectiveness and Quality Measures Criteria	CMCT
05/02/00	08/07/00	Identify CM metrics	ANS, AOS, AOP, ANI, AUA, AND, AML, ARS, ACM, Regions (3)
01/03/00	12/31/01	Assess Measures and Initiate Corrective Action Plans	CMCT

**APPENDIX B
SCHEDULES**

Table B-1.2: Develop and Maintain Skilled Workforce Tasks

Start	Target Complete	Task Description	Participants
01/15/99	12/31/01	Develop/Conduct CM Awareness Briefings	ACM
01/15/99	12/31/01	Develop/Conduct Basic CM Courses	ACM
07/07/99	08/04/99	Develop Minimum Training Requirements	ACM,ANS,AOS,AOP, AND,AUA, 2 Regions
08/06/99	12/31/99	Develop Agency CM Training Program Plan	ACM
01/03/00	12/31/01	Implement Agency CM Training Program	ACM
1/6/00	12/26/01	Develop/Conduct Advanced CM Training	ACM, CMCT
	Ongoing	Attend applicable CM Training	Agency

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APPENDIX B SCHEDULES

Table B-1.3: Develop Technology Tasks

Start	Target Complete	Task Description	Participants
05/03/99	11/30/99	Develop the Draft CM Information Architecture (IA) Concept of Operations and Design Strategy (CONOPS)	ACM
		Provide Input/Review CM IA CONOPS	AOS,ANI,AML, AOP
04/01/99	09/30/99	Develop NCP Workflow, Data Design, and Functional Design documentation.	ACM
		Provide Input/Review Workflow Documentation	AND,AUA,ANS,AOS, ASW,AGL, AML,ACT,AOP
09/01/98	12/31/99	Conduct procurement activities to Acquire EDMS(CM) Automated Tool.	ACM, ANS, ANI, AML, AOP
01/03/00	03/03/00	Design, Develop and Implement EDMS(CM) NCP Flow Application and Supporting Technical Infrastructure	ACM
03/06/00	09/25/00	Manage Operation of the EDMS CM Tool Pilot for NCP processing	ACM
		Operate and evaluate EDMS CM Tool Pilot for NCP processing	AND,AUA,ANS,AOS, ASW,AGL, AML,ACT,AOP
05/03/99	10/29/99	Develop Document Management Strategy/Concept of Operations	ACM
11/01/99	12/31/99	Define Automated Linkages between Mod Tracking System and CCDs	ACM
05/03/99	12/28/01	Monitor ASCM evolution for impacts to CM	ACM
05/03/99	07/01/99	Redesign CM Corporate Web Page	ACM
01/03/00	12/29/00	Develop/Implement Business Model (Rev. 1) <ul style="list-style-type: none"> • Data Architecture • Applications Architecture • Technical Architecture 	ACM
01/03/00	12/29/00	Build/Implement Revision 1 of the Data, Applications and Technical Architectures	ACM
01/03/01	12/31/01	Develop/Implement Business Model (Rev. 2) <ul style="list-style-type: none"> • Data Architecture • Applications Architecture • Technical Architecture 	ACM
		Build/Implement Revision 2 of the Data, Applications and Technical Architectures	ACM

APPENDIX C ACRONYM LIST

AF - Airways Facilities
 AMS - Acquisition Management System
 ASCM - Asset Supply Chain Management
 AT - Air Traffic
 ATC - Air Traffic Control
 ATO - Air Traffic Organization
 B/Ls - Baselines
 BU - Business Unit
 CCB - Configuration Control Board
 CCD - Configuration Control Decision
 CDRL - Contract Data Requirements List
 CI - Configuration Item
 CM - Configuration Management
 CMCT - Configuration Management Core Team
 CMPP - Configuration Management Program Plan
 CMSG - Configuration Management Steering Group
 CONOPs - Concept of Operations
 DCC - Document Control Center
 DOCCON - Document and Configuration Identification System
 EDMS - Enterprise Document Management System
 EEM - Electronic Equipment Modification
 FAA - Federal Aviation Administration
 FRD - Final Requirements Document
 IA - Information Architecture
 iCMM - Integrated Capability Maturity Model
 iPG - Integrated Process Group
 IPP - Integrated Program Plan
 IPT - Integrated Product Team
 JRC - Joint Resources Council
 LOB - Line of Business
 MCI - Master Configuration Index
 NAS - National Airspace System
 NCP - NAS Change Proposal
 OPI - Office of Primary Interest
 PC - Personal Computer
 PSF CCB- Power Systems and Facility CCB
 PSL - Product Support Library
 RD - Requirements Document
 Rev. - Revision
 SETA - System Engineering and Technical Assistance
 SME - Subject Matter Expert
 SOW - Statement of Work
 SPB - Site Program Bulletin
 VDCC - Virtual Documentation Control Center
 WBS - Work Breakdown Structure
 Wkgrp - Workgroup

**APPENDIX C
ACRONYM LIST**

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