



# **Configuration Management Evaluation-Findings and Recommendations**

**Briefing to the CMSG**

**March 17, 2003**



# Evaluation Objectives

- **To identify core attributes of effective CM in an ATO environment**
- **To determine the range of CM practices currently in use in ARA and ATS, and the causes of any disparity between the most mature and least mature CM practices**



# Evaluation Methodology

- **Identified core attributes of effective CM practices**
- **Performed comprehensive analysis of NAS-Level CM practices**
- **Performed analysis of IPT/Regional/Facility CM Practices using three case studies**
  - **DSR**
  - **AWOS**
  - **ETVS**
- **Completed Site Visits at 3 Regional Offices and nearby facilities**
- **Conducted more than 100 interviews**



# Findings Summary

- **10 findings and 31 recommendations identified**
- **Many of the findings and recommendations reflect need for stakeholder collaboration on NAS CM issues**



# Selected Findings

- **The FAA does not have a corporate strategy for the CM process.**
  - **Recommendations**
    - The CMSG should develop a corporate CM strategy that establishes performance goals and provides an implementation plan for achieving these goals.
    - The CMSG should meet regularly to address ongoing cross-functional CM issues.
    - ARA-1 and ATS-1 should re-evaluate the composition of the CMSG to determine whether managers at the appropriate level are included as permanent members.



## Selected Findings (cont.)

- **Performance Metrics are not tied to corporate-level performance goals for the CM process**
  - **Recommendations**
    - CMSG-related
      - After developing corporate-level performance goals, the CMSG should establish outcome-oriented performance metrics that will be used to evaluate the FAA's success in achieving these performance goals.
    - Other
      - ACM-20 should ensure that stakeholders in the CM process have the capability to efficiently collect and report their performance metrics.



## Selected Findings (cont.)

- **The NAS Change Control Process is well documented at all levels, although stakeholders find the process cumbersome**
  - **Recommendations**
    - CMSG-Related:
      - ACM-20 and CMSG Core Team should examine the must evaluation phase of the configuration control process.
      - ACM-20 and CMSG Core Team should establish a working group do develop criteria for classifying change proposals into Class I and Class II categories.
    - Other
      - Stakeholders, working in conjunction with ACM-20, should continue to pursue initiatives to make the change proposal process less cumbersome.



## Selected Findings (cont.)

- **FAA's DOCCON does not reflect the actual status of certain CCD's.**
  - **Recommendations**
    - CMSG-related
      - ACM-20 and the CMSG Core Team should simplify the procedure for withdrawing action items in the CCD that are no longer feasible.
      - ACM-20 and the CMSG Core Team should develop general guidelines for establishing completion dates for action items in the CCD.
    - Other
      - ACM-20 and AF should continue to pursue electronic transmission of modification data between the MMS and the new WebCM tool.
      - AOS should not close CCDs in DOCCON until Facilities have installed all applicable modifications associated with a CCD.
      - AOS and AOP should brief AF-1 regularly on the status of open CCD's in the Airway Facilities Service organization.



## Selected Findings (cont.)

- **Configuration Management Training Varies Widely Among Stakeholders.**

- **Recommendations**

- **CMSG-related**

- ACM-20 and the CMSG Core Team should complete the draft Configuration Management Training Plan and distribute it to CM stakeholders throughout the agency.

- **Other**

- ACM-20 should update the CM website to include those training opportunities identified in the CM Training Plan.



# **Backup Slides**



# Other Findings

- **CM is not fully conducted in the early phase of the AMS lifecycle.**
  - **Recommendations:**
    - **The NAS CCB and ASD should make completing the Technical Architecture and placing it under configuration control a top priority**
    - **ARS should develop case files to place the fRD under configuration control after JRC approval.**
    - **ARS should develop case files when proposing changes to a baselined fRD to ensure NAS CCB review of any technical changes.**



## Other Findings (cont.)

- **Locally developed systems are not placed under configuration control prior to installation.**
  - **Recommendations:**
    - **ARA-1 and ATS-1 should establish a NAS requirements function at the corporate level**
    - **IPT's should work with the Regions and Facilities to identify local systems that have not been baselined and ensure these systems are placed under configuration control.**
    - **Regions and Facilities should submit case files to the NAS CCB requesting local systems be placed under configuration control prior to installation.**
    - **Regional CM plans should address how local systems should be evaluated and placed under configuration control prior to installation.**



## Other Findings (cont.)

- **CM roles and responsibilities are not well defined and communicated at the Regional and Facility levels.**
  - **Recommendations:**
    - **ACM-20 should revise FAA order 1800.66 to provide further detail on the agency's modification process and how it fits into the overall CM process.**
    - **AFZ-700 should distribute the overall Regional CM plan to the Regions.**
    - **Regions should prepare their own CM Plans and provide these to the Facilities.**



## Other Findings (cont.)

- **FAA's modification data does not accurately or completely reflect changes to the NAS.**
  - **Recommendations:**
    - **Facilities should update the MMS and FRDF with current status of modification implementation.**
    - **Regions should ensure that Facilities update the MMS and FRDF with current status of modification implementation.**
    - **AOP-100 should continue working with stakeholders to improve functionality of the MMS.**
    - **ACM-20 should continue assisting AOP-100 in communicating MMS improvements to stakeholders.**



## Other Findings (cont.)

- **FAA's AF service does not regularly conduct configuration status audits for deployed systems.**
  - **Recommendations:**
    - **AF should conduct regularly scheduled Facility configuration status audits**
    - **Regions should brief AF-1 regularly on the results of configuration status audits.**