Safety Management Systems

ARP SMS Overview (Internal)

Presented to: ANM

By: Randy L. Moseng, ACSI, A.A.E.

Date: April, 2010
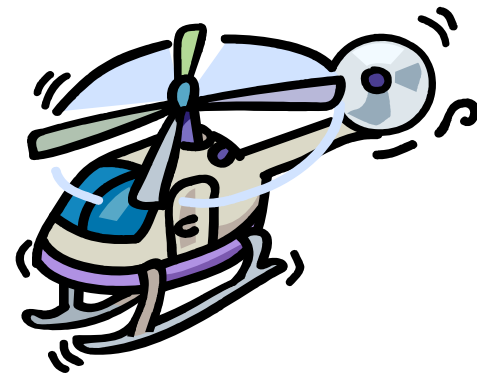
Federal Aviation Administration

Understanding the need for SMS…

"SMS controls the outcome by concentrating on the process… Safety must be designed and built into the very fabric of the process, not inspected in after the fact."
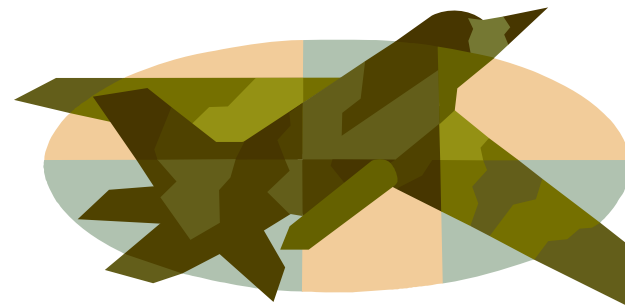
Captain Chesley Sullenberger III, 09/10/09

The beauty of SMS is…

The danger of SMS is…

Our SMS

- **Must comply with JPDO and Order 8000.369.**
- **But, must fit ARP needs**
- **Must recognize the reality of resource limitations**
- **Must move us toward the goal of a proactive approach to safety**

Vi tager ansvar for sikkerheden

VÆR OPMÆRKSOM · TAG ANSVAR · SKAB SIKKERHED

Reactive Approach to Safety

Focuses on 'Probable Cause' and assignment of blame.

Effectively answers: Who? What? When?

May not always answer:

Why?   How?

Or what might happen tomorrow!

What is driving our internal SMS requirements?

- **FAA Order 8000.369 says we must:**
  - Integrate SMS concepts into organization
  - Apply risk analysis before taking federal actions
  - Develop an Implementation Plan
  - Participate in SMS Council and Executive Committee
  - Study SMS requirement for regulated parties (Part 139 certificated airports)

# What is really driving development of our SMS structure?

- **JPDO 'SMS Standard v1.4' says that we must:**
  - Establish safety policy
  - Apply risk analysis to operational procedures and processes
  - Have a means to identify and control hazards
  - Establish an interface between risk management and safety assurance
  - Monitor our systems, operations and products/services.
  - Promote the growth of a positive safety culture

Safety Management Systems Update

- **For ARP to have a functioning SMS what documents do we need to develop?**
  - Policy
  - Order
  - Implementation Plan
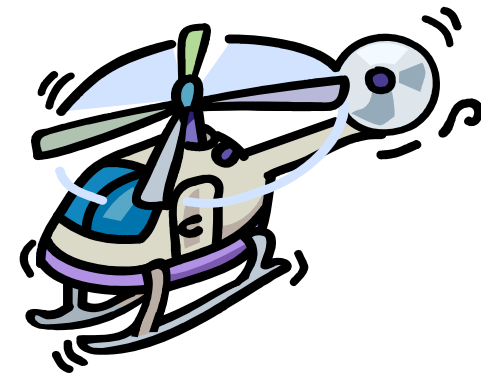 - SMS Manual
  - Communications plan
  - Training plan
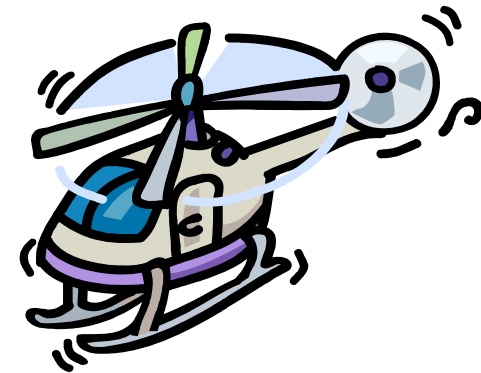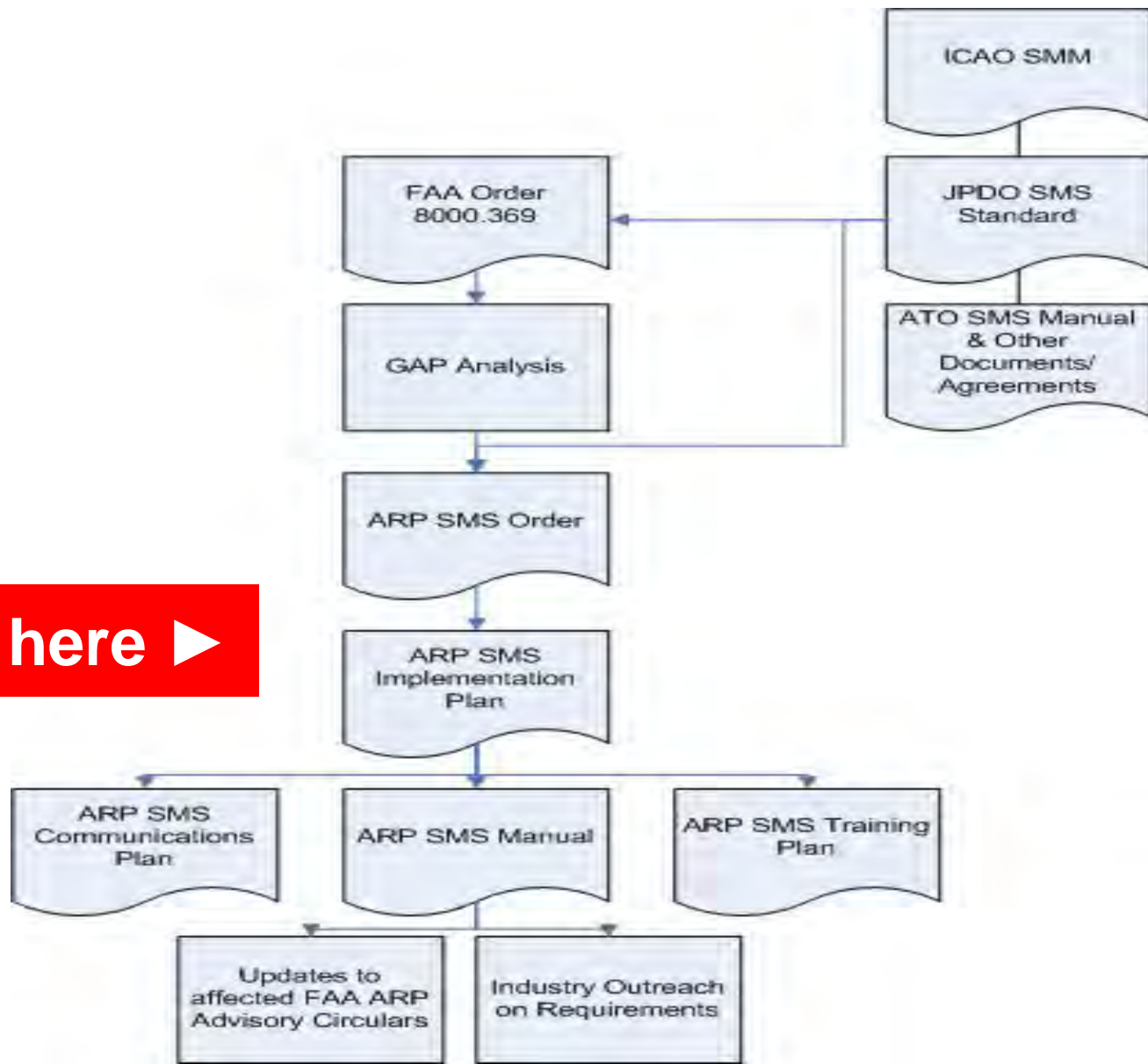
We are here ▶

Safety Management Systems Update

- **What has been done so far?**
  - Policy
  - Draft Order
  - Draft Implementation Plan
  - Initiation of Implementation studies
  - National SMS team
  - National Certification SMS study
  - Communications outreach
  - Training plan and coordination with MMAC
 - SMS Newsletter

ARP SMS Contract Assistance

- **Microsystems Automation Group**
  - Sub: CSSI
  - ATO SMS experience
  - Service provider experience (airport)
- **COTR: AAS-300**
- **Fixed Cost Contract**
- **1 Year Duration (recently extended to December 2010)**
- **Variety of expertise available under contract**

Safety Management Systems Update

- **'Microsystems Automation Group'**
  \Major Deliverable Schedule:
  - Final SMS Order, 05/2010
  - SMS Implementation plan, 06/2010
  - Staffing Plan, 06/2010
  - SRMD Flow Matrix, 07/2010
  - SMS Manual, 10/2010
  - SMS Training Plan, 12/2010
  - Provide additional training and SRM support, 2011-2012.
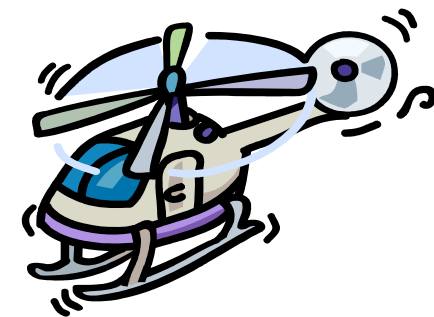
National SMS Implementation Team includes HQs (AAS, APP), ADOs, & Regional Staff


"Though this be madness, yet there is method in't."

Safety Management Systems Update

- **Planning & Programming Implementation Studies**
    - Six separate studies will analyze how we inject SRM into the various phases of the existing airport planning and development process. Including:
        - Master Plan and ALP approval
        - Environmental review and approval
        - Modification of Standards
        - Safety During Construction CSSP
    - Effort will include analysis during current project development, and analysis of previous work completed (case study effort).
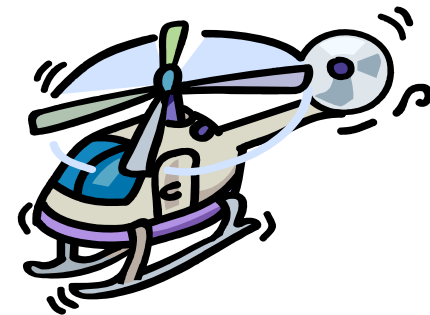
SMS Regional Outreach

- **Management Overview**
- **Local ADO interviews and surveys**
- **Distant ADO interviews and surveys**
- **Development of Out-brief and recommendations document**
- **ASO, AGL, AWP, ASW… on-site visits**
- **Other regions via electronic outreach (electronic survey supplemented by 'SameTime' session with SMS contract team.)**

ARP SMS – Communications Outreach

- **SMS Webpage update**

- **'<u>Gear-Up</u>' Airports Division SMS Newsletter**

- **SHARE…Employee Safety Hazard Report**

- **Each region will have input to SMS development through multiple avenues**

SMS in Airport Certification: Study/Gap Analysis

Need:

- **How do we comply with SMS in the certification program?**

- **What should our risk analysis model look like?**

- **What assurance elements are needed?**

- **How do we integrate existing systems and processes?**

SMS in Standards Development: Study/Gap Analysis

Need:

- **How do we comply with SMS when developing or revising standards?**

- **What should our risk analysis model look like?**

- **What assurance elements are needed?**

- **How do we integrate existing systems and processes?**

ARP SMS – SMS Training Model

Designed to accommodate functional work requirements and specific SMS needs for the position in question.

- **SMS Overview**
- **SMS for Participants**
- **SMS for Facilitators**
- **SMS – Train the Trainer**
- **Managing the SMS Effort**
- **Recurrent training: stand-alone and integrated into existing recurrent training programs.**

ARP SMS - Safety Assurance

System:

- **Need to increase our data gathering processes (within AAS and APP)**
  - Required for system-wide analysis
  - Checks and Balances

- **Inspection/Audits:**
  - AAS and APP
  - Local program reviews
  - Use of findings

ARP SMS – Integration & Implementation

- **Coordination & integration within FAA**
  - Gap analysis
  - SMS Council/Executive Committee

- **Phased Approach to Implementation**
  - ARP budget and number of annual airport construction projects dictates a slower approach to implementation
  - Analysis needed to determine future resource requirements
  - Lead time to gain additional resources may be lengthy

Rulemaking Update:

- ## ICAO Annex 14 Amended in November 2005

"Annex 14, Volume 1, requires States to certify aerodromes used for international operations and recommends certification of aerodromes available for public use. The aerodrome certification process includes <u>approval/acceptance of an aerodrome manual that outlines the aerodrome's safety management system (SMS)."</u> – *ICAO Safety Management Manual*
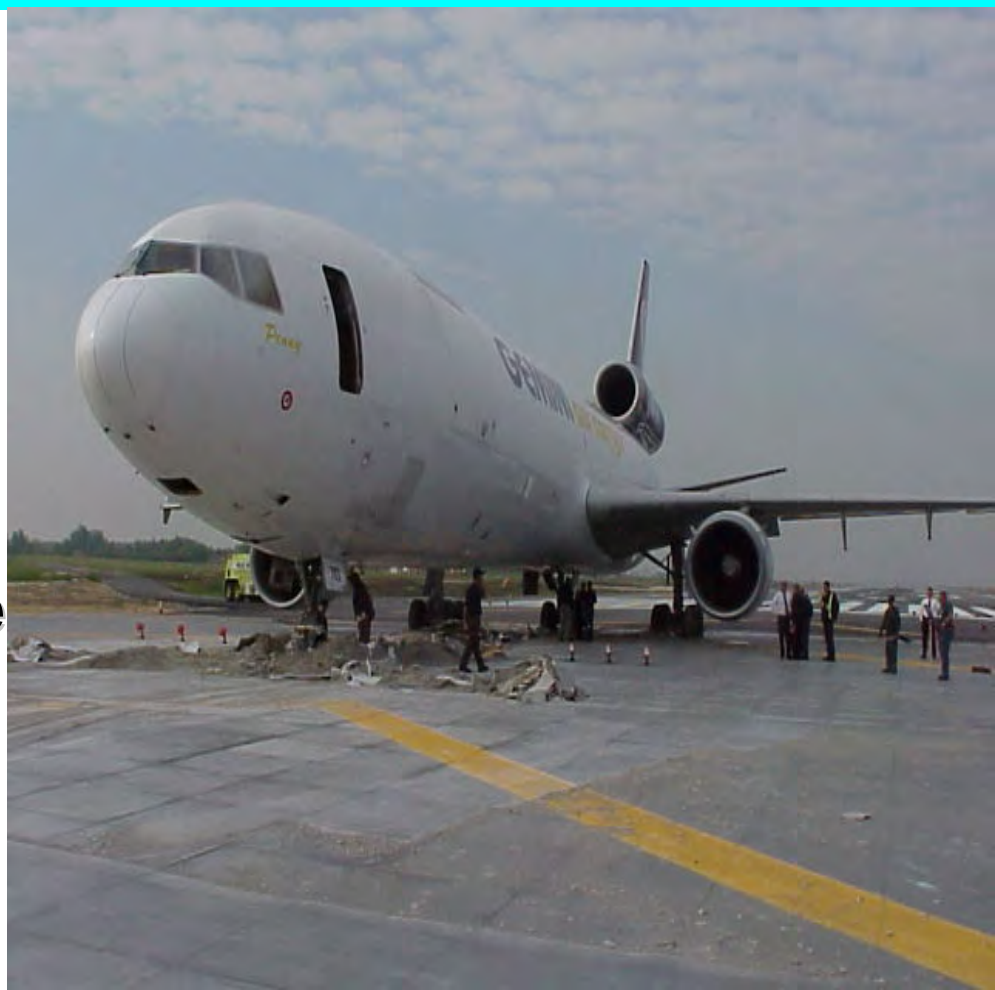
- ## USOAP Audit Finding

Rulemaking Update

- **Actively engaged in rulemaking project**
  - Determining if and how FAA will require SMS under Part 139

- **Rulemaking timelines are not synched to internal effort**

- **If agency pursues rulemaking:**
  - Orders, ACs, and ARP SMS Manual will need to be updated to include SMS requirements under rule and how airport SMS will interact with ARP SMS

As this audience knows…

- **The elimination of accidents is impossible.**

- **Failures will occur.**

- **Controlled risk and error are acceptable in an inherently safe system.**

- **SMS allows us to recognize this fact and will focus the application of finite resources.**

Because human inventiveness for error is limitless!

QUESTIONS?

Randy L. Moseng, ACSI, A.A.E.

Airport Safety and Operations, AAS-300

c/o Delta Airlines CMO

1701 Columbia Ave

College Park, GA 30337-2748

Randy.Moseng@faa.gov

(404)474-5331