



HAI SMS/FDM Workshop

Houston TX.

February 22, 2010

Ed Stockhausen
Director of Safety



Air Methods...At A Glance

- Employees
 - 3,010
 - Headquarters - Englewood, Colo.
- Bases
 - 100 Community
 - 145 Hospital
- Aircraft
 - 300+
- States Served
 - 45
- Financial
 - NASDAQ Ticker: AIRM



Our History

- Founded in 1980
 - Roy Morgan
- First hospital program
 - St. Mary's, Grand Junction, Colo.
- 1997 - Mercy Air Service
- 2000 - ARCH
- 2002 - Rocky Mountain Holdings
- 2007 - CJ Systems
- 2009 - Omniflight North Georgia and Atlanta



Who We Are

- Only air medical services provider with national presence under two service delivery models
 - HBS
 - CBS
- Offers all key core competencies in-house:
 - Aviation operations
 - Billing and collections
 - Dispatch and communications
 - Field maintenance
 - Medical staffing and training

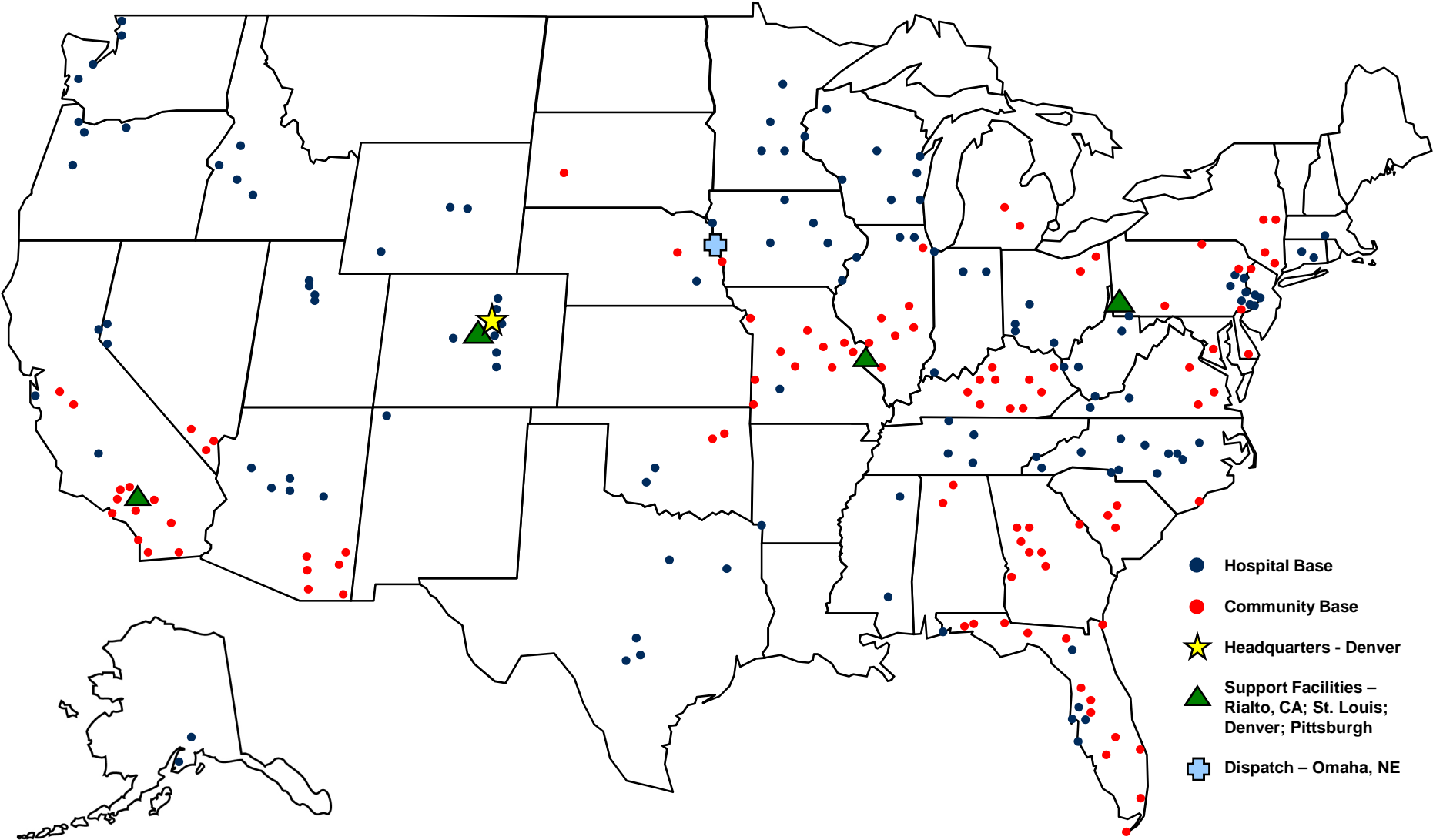
Hospital-Based Flight Programs



Community-Based Flight Programs



Combined Flight Services

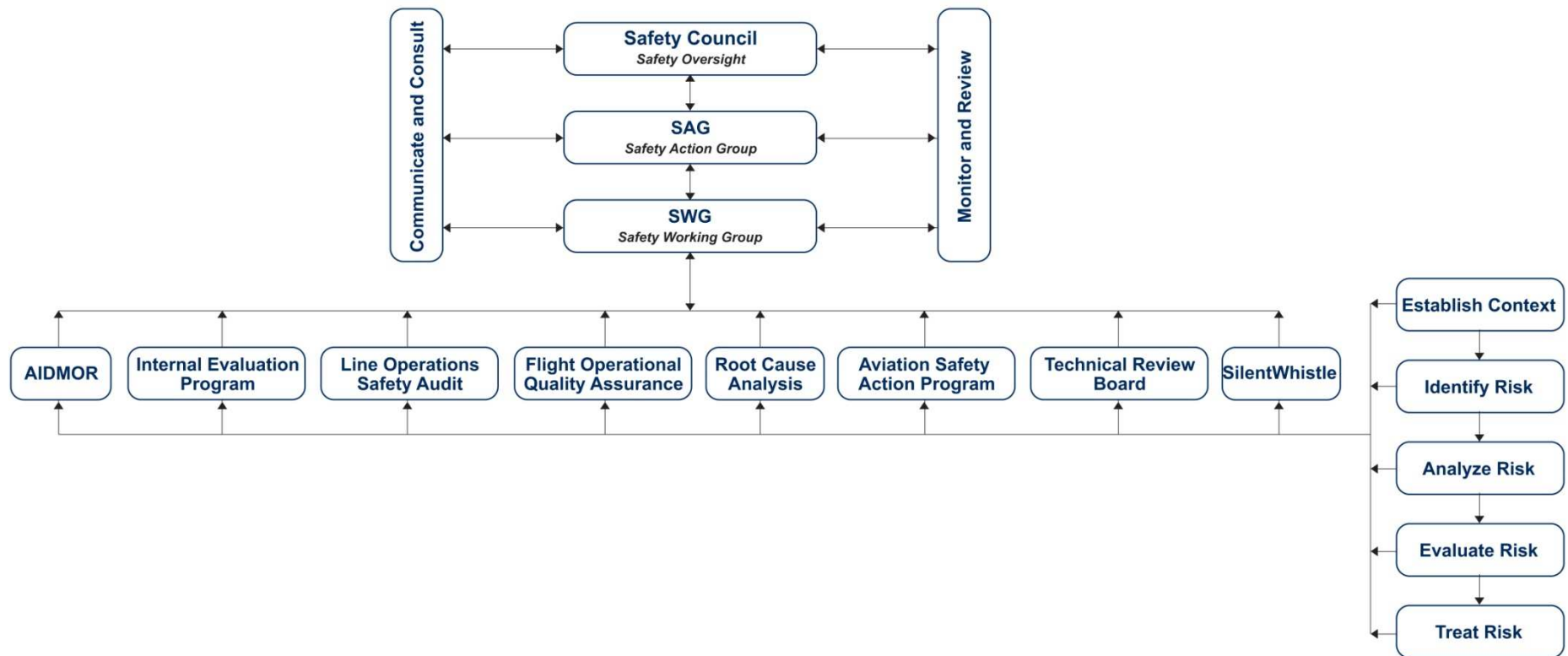


Safety Technologies by End of 2009

- Night Vision Goggles 136 of 301 aircraft
- TAWS 82 of 301 aircraft
- XM Satellite Weather 82 of 301 aircraft
- Satellite Tracking 297 of 301 aircraft
- Wire Strike 227 of 301 aircraft

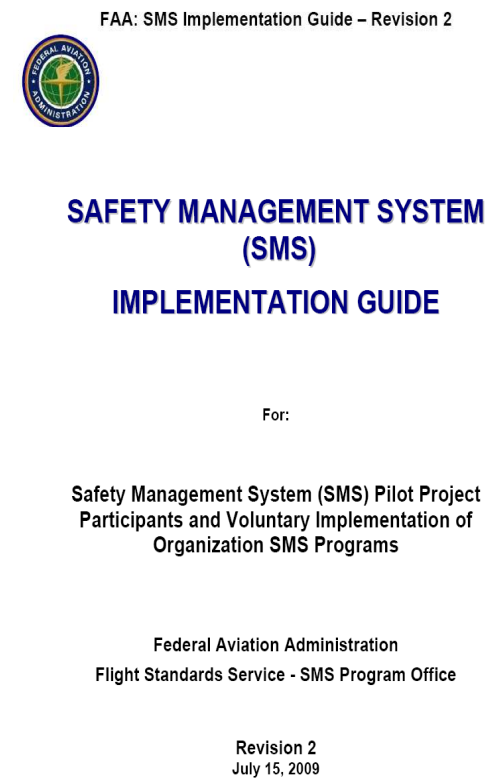


Safety Initiatives





AFS 940 SMS Pilot Program





AFS 940 SMS Pilot Program

- Don Arendt
- Dudley Oatman

AFS 940 SMS Pilot Program

Preliminary Air Carrier Gap Analysis Tool								
Note: This tool is designed to be used with SMS Assurance Guide, Rev 1								
Participant:				Location:				
Assurance Guide Question	Overall Assmt Rating	Flt Ops Assmt Rating	Dispatch Assmt Rating	MTC Assmt Rating	Cabin Assmt Rating	Ground Assmt Rating	Cargo Assmt Rating	Training Assmt Rating
Component 1.0 Safety Policy and Objectives								
Policy: General Expectations								
Performance Objective								
A service provider will develop and implement an integrated, comprehensive, SMS for its entire organization and will incorporate a procedure to identify and maintain compliance with current safety related, regulatory, and other requirements.								
Element 1.1 Safety Policy								
Performance Objective								
Top Management will define the service provider's safety policy and convey the expectations and objectives to its employees.								
Element 1.2 Management Commitment and Safety Accountabilities								
Performance Objective								
Top Management will define, document, and communicate the roles, responsibilities, and authorities regarding safety throughout its organization.								
Element 1.3 Key Safety Personnel								
Performance Objective								
The service provider will appoint a management representative to manage, monitor and coordinate the SMS processes throughout its organization.								

Air Methods Corporation

Detailed Gap Analysis

0									
Note: This tool is designed to be used with SMS Assurance Guide, Rev 2 (7-15-09)									
Participant:									
SMS IMPLEMENTATION	System Average	1.5	1.7	1.5	1.3	1.5	1.3		
Assurance Guide Question	Company's Documentation Source	Overall Assmt Rating	Flt Ops Assmt Rating	Maint Assmt Rating	Repair Station Assmt Rating	Clinical Assmt Rating	Comm Assmt Rating	DEVELOP	TASK Assignment
Component 1.0 Safety Policy and Objectives									
Element 1.0 Safety Policy and Objectives									
Policy: General Expectations									
Performance Objective									
An organization will develop and implement an integrated, comprehensive SMS for its entire organization and will incorporate a procedure to identify and maintain compliance with current safety-related, regulatory, and other requirements.									
Management Accountability									
Does the organization identify who is responsible for the quality of the organizational management processes (name, position, organization)?	Internal Memo & Safety Manual Para 1.6 GOM Pages A5-A29, Ops Specs								
<i>SMS Framework: 1.2.B.3) (R4)</i>									
Procedure: Scope - Air Operators									
Does the organization's SMS include the complete scope and life cycle of the organization's systems, including -									
Flight Operations?	Internal Memo & Safety Manual Para 1.6 GOM Pages A5-A29								
<i>SMS Framework: 1.0.B.1) a) (1) OIA - SMS Standard 4.1</i>									
Operational Control (Dispatch/flight following)?	GOM Pg B-2/B-3								
<i>SMS Framework: 1.0.B.1) a) (2) OIA - SMS Standard 4.1</i>									
<i>4) (2) (P)</i>									

AFS 940 SMS Pilot Program

- Its not a test
- But a snap shot in time



AFS 940 SMS Pilot Program Lessons Learned

- Scalable
- One size does not fit all
- Resources/use what you have available
- Principals must be engaged
- Build on your strength
- Pick the proverbial low hanging fruit
- Can't do it alone

FAA Safety Management System Pilot Project

- Exited Level 1 (December 2009)
- One of only six commercial air operators to earn an SMS status acknowledgement letter
- Only helicopter air medical operator; only 68 commercial air operators, 57 active 9 in the Queue



U.S. Department
of Transportation
**Federal Aviation
Administration**

800 Independence Ave., SW,
Washington, DC 20591

JAN 20 2010

Mr. Edward Stockhausen
Director of Safety
Air Methods Corporation
7211 South Peoria
Englewood, CO 80112

Dear Mr. Stockhausen:

This letter acknowledges the participation of Air Methods Corporation in the Federal Aviation Administration's (FAA) Safety Management System (SMS) pilot project.

The SMS pilot project consists of voluntary implementation of SMS by operators and other aviation service providers. The FAA Flight Standards SMS framework used in this project is based upon the requirements of FAA Order VS 8000.367, Aviation Safety (AVS) Safety Management System Requirements, Appendix B, and the SMS framework specified by the International Civil Aviation Organization (ICAO) in ICAO Annex 6 and further detailed in ICAO doc. 9859, Safety Management Manual (SMM). Participation in this program signifies that Air Methods Corporation is implementing an SMS in accordance with international standards.

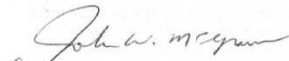
The implementation process described in the SMS Pilot Project Implementation Guide is derived from a four-phase process recommended by ICAO in ICAO document 9859, SMM, referenced above.

Based on our review of Air Methods Corporation's planning, documentation, and activities, we have determined that your SMS implementation project meets the expectations of the Flight Standards SMS framework and the SMS Pilot Project Implementation Guide for Level 1 SMS. Your FAA certificate management team (CMT) and the Flight Standards SMS Program Office have validated this achievement.

Upon satisfactory completion of a program review performed by your FAA CMT and the Flight Standards SMS Program Office, we expect your company to advance to the next level of SMS maturity within 12 months from the date of this letter.

Thank you for your participation and your organization's commitment to the continued improvement of aviation safety within the United States.

Sincerely,


for John M. Allen
Director, Flight Standards Service

Taking the Lead in Flight Safety - LOSA



Line Operations Safety Audit

This methodology utilizes trained observers riding in the cockpit to evaluate several aspects of crew performance. The in-flight observers record the various threats encountered by the crew, types of errors committed, and most importantly, they record how flight crews manage these situations to maintain safety.

Draft - HEMS LOSA Data Collection Form - Draft
Sample 4.29.00

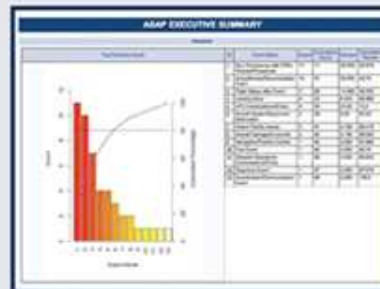
Demographic	
Observer ID	00001
Observer Type	<input type="checkbox"/> Base in Cockpit <input type="checkbox"/> Hospital On Base <input type="checkbox"/> Other
Observer Name (Last, First, MI)	00001
Observer Title	00001
Organization Type (HEMS or EMS)	HEMS
Base Location	San Antonio - Comanche Hospital
Flightline Type	447-400
Was this observation conducted in a genuine observation?	Yes
Was this Type 1 or 2?	1
Was this Type of 1 or 2?	1

Taking the Lead in Flight Safety - ASAP



Aviation Safety Action Program

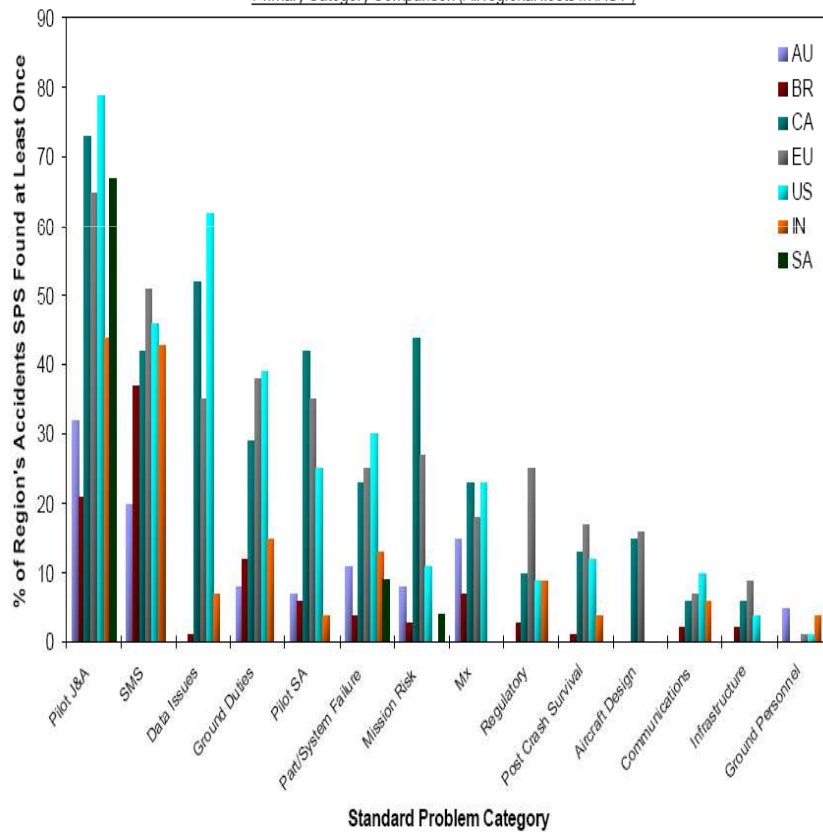
In July 2009, Air Methods was the first large rotor-wing operator in the country, and the second in the air medical industry to implement an ASAP. Often used by major airlines, the ASAP is a voluntary, self-reporting program designed to identify and reduce possible flight safety concerns. ASAP uses employee input to identify significant safety concerns and issues; operational deficiencies; noncompliance with regulations; deviations from company policies and procedures; and unusual events.



Why FDM/FOQA and SMS?

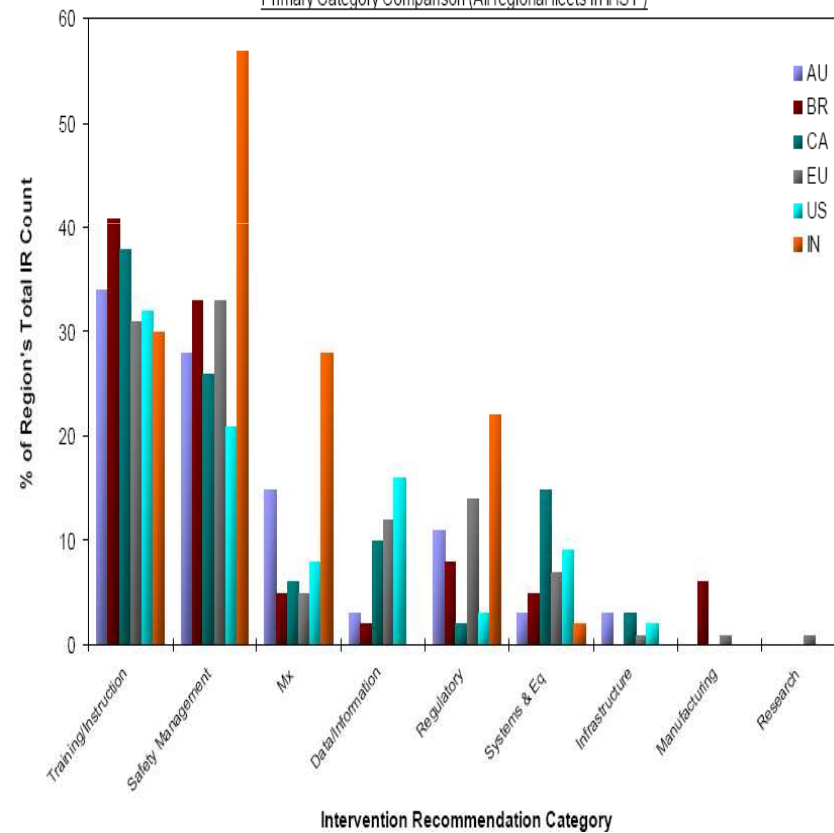
IHST Region-by-Region SPS Data

Primary Category Comparison (All regional fleets in IHST)



IHST Region-by-Region IR Data

Primary Category Comparison (All regional fleets in IHST)



Why FDM/FOQA and SMS?

- **Level 2 Input:**
- The outputs, documentation, detailed gap analysis and implementation plan from the Level 1 exit process will provide the initial input for Level 2 development.
- **Additional input includes results from:**
 - Internal Evaluation Program (IEP),
 - Aviation Safety Action Plan (ASAP),
 - Continuing Analysis and Surveillance (CAS),
- ***Flight Operations Quality Assurance (FOQA),***
 - Previous internal and external audit reports and evaluations,
 - Accident and incident investigations, and
 - Employee reports and / or feedback.
- **Consider input from existing data sources such as:**
 - Flight dispatch records
 - Flight schedules
 - Financial data
 - Crew schedules and records
 - Warranty return reports
 - Aircraft discrepancy reports
 - Flight cancellation and delay reports

References:

SMS Framework, as revised,
SMS Assurance Guide, as revised, and
SMS Implementation Guide, as revised.

Taking the Lead in Flight Safety - FOQA



Flight Operational Quality Assurance

FOQA is a method of capturing and analyzing the data generated by an aircraft, similar to a "black box." Many U.S. airlines have initiated FOQA programs to collect, store and analyze recorded flight data. Air Methods intends to improve its overall safety, increase maintenance effectiveness and reduce operational costs through the FOQA program.



Flight Safety Foundation FOQA Project

- Flight Safety Foundation
- Aerobytes
- Air Methods
- Appareo/Vision 1000
- L-3
- OPEIU Local 109

Flight Safety Foundation FOQA Project

- Flight review/Up to 400+ parameters/event sets
- Training-debrief and analysis
- Accident/incident analysis
- Electronic oversight
- Program synergy
- SMS level 2 expectation
- Safety Risk Management/Safety Assurance and Safety Promotion

