

FDM vs. FOQA

FAA HQ Perspective

Presented to: FDM Workshop

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Federal Aviation
Administration



Overview

- **FDM vs. FOQA**
- **Who you gonna call?**
- **Why voluntary programs?**
- **What's in it for me?**



FDM vs. FOQA

- **Flight Data Monitoring (FDM) is the technology and methodology for collecting and analyzing data recorded in flight.**
- **Flight Operations Quality Assurance (FOQA) is an FAA program that standardizes the FDM process for interested parties.**



17 Currently Approved FOQA Programs

- **Airtran**
- **Alaska**
- **America West**
- **American**
- **ATA**
- **Continental**
- **Delta**
- **Express Jet**
- **Frontier**
- **Midwest**
- **Northwest**
- **Pinnacle**
- **Southwest**
- **Sun Country**
- **United**
- **UPS**
- **USAirways**



FAA Organizational Responsibility

- **Administrator (AOA-1)**
- **Associate Administrator for Aviation Safety (AVS-1)**
- **Director of the Flight Standards Service (AFS-1)**
 - Air Transportation Division (AFS-200)
 - Voluntary Safety Programs Branch (ASF-230)
 - » Dr. Thomas M. Longridge, Manager of FOQA
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 - General Aviation & Commercial Division (AFS-800)



Eight FAA Voluntary Safety Programs

- ASRS
- ASAP
- **FOQA**
- VDRP
- IEP
- AQP
- LOSA
- HF RE&D



The Six Primary Voluntary Safety Programs

- **Aviation Safety Reporting System**
 - Aviation-wide individual disclosure program.
- **Aviation Safety Action Program**
 - Airline-specific employee disclosure program.
- **Voluntary Disclosure Reporting Program**
 - Operator-specific company disclosure program.
- **Internal Evaluation Program**
 - Airline-specific self-auditing program.
- **Flight Operations Quality Assurance**
 - Operator-specific flight data monitoring program.
- **Advanced Qualification Program**
 - Airline-specific operations training program.

Two Secondary Program

- **Line Operational Safety Audits**
 - Comprehensive air carrier cockpit safety inspections
 - FAA endorsed
 - AC 120-90
- **Air Transportation Human Factors Research, Engineering and Development**



Why Have Voluntary Programs?

- **What role to they play?**
 - Regulatory programs set minimum standard and punish those who do not meet them.
 - The FAA regulatory programs provide no incentives to the certificate holders to exceed minimum standards.
 - The voluntary programs provide the “carrot”, while the regulatory programs provide the “stick”.
- **What do the certificate holders get out of it?**
 - Each voluntary safety program has a some form of regulatory incentive:
 - » Regulatory flexibility (AQP), administrative vs. enforcement action (ASAP, VDRP), enforcement protection (FOQA), etc.

Why Have Voluntary Programs?

- **What does the FAA get out of it?**
 - Unprecedented insight into safety issues
 - E.g. 9/10 of ASAP reports are sole source
 - E.g. 2/3 of ASAP reports do not involve employee violations
 - Guarantees of corrective action



What's in it for me?

- **Enforcement incentives**
 - No action for legal and unintentional violations for which corrective action is initiated.
- **Data protection**
 - Part 193 FOIA protection.
- **Government support**
 - Advisory Circular, Handbook Chapter, Implementation & Operations Plan, Training Materials, FAA POC, etc.
- **Standardization**
 - Ability to share methods and data with others

What's in it for me?

- **Participation in a community**
 - Aviation Rulemaking Committee
 - FOQA Infoshare meetings
 - ASIAS (Aviation Safety Information-sharing and Analysis System)
 - Possibility of future Research and Development Support
- **Positioning for Safety Management Systems (SMS)**



FDM Benefits

- **Safety Benefits**

- Detect potential component failure earlier
- Correct variances from Standard Operating Procedures
- Document problems whose solution is external to the organization

- **Financial Benefits**

- Reduce unnecessary parts replacement
- Address potential component failure earlier

FOQA Benefits

- **Enforcement incentives**
 - FAR violations revealed only by FOQA that receive corrective action and do not involve criminal or intentional actions will not be pursued.
- **Data protection**
 - FOQA data will be de-identified and protected from Freedom of Information Act (FOIA) release under FAR Part 193.
 - FAA Legal Office will defend any attempts to override Part 193 by other authorities.

FOQA Benefits

- **Government Support**
 - Public Domain Documentation
 - Advisory Circular, Handbook Chapter, Training Materials, Implementation and Operations Plan, etc.
 - Limited Distribution Documentation
 - White Papers, Industry Reports, FAA Website, FAA Studies, etc.
- **Standardization**
 - Shared Methodologies
 - Shared Resources
 - Shared Data

FOQA Benefits

- **Community Participation**
 - Existing Communities
 - FOQA ARC
 - Infoshare
 - VASIS/ASIAS
 - FAA RE&D
 - Future Communities
 - GA & Commercial Aviation



Questions?

