Follow Procedures! – Johnson
Follow Procedures!

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28 August 2018
Presentation Plan: Follow Procedures

The FFP Challenge

Follow Procedures Project

Misc FAA Initiatives
Follow Procedures?
Not Always Failure to Follow Procedures?
Presentation Plan: It Takes a Village To Follow Procedures

The FFP Challenge

Follow Procedures Project

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2016-17 Study Methodology

Phase 1: (2016)
Reviewed ASRS and NTSB reports
92 Contributing Factors
15 Mitigations

Phase 2: (2017)
Field Interviews
“Describe a personal FFP event”
Matched story to the 92 CFs
Rated effectiveness value of mitigations
Who was Interviewed?

- **156 Participants including:**
  - AMTs
  - Inspectors
  - Managers
  - Engineers & Procedure writers
  - Supervisors

- **7 Companies including:**
  - Airliner manufacturers
  - Repair stations for 91, 135, 121,
Top Contributing Factors

- Task Familiarity: 67
- Time Pressure: 65
- Task Interruptions Tolerated: 62
- Task Distractions Tolerated: 60
- "Knew what I was doing": 60
- Missed a Task Step: 57
- Forgot to Perform a Task: 51
- A Shift Other than Day: 49
- Task Performed from Memory: 49
## Lowest Contributing Factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interface between MRO and operator</td>
<td>3.2</td>
</tr>
<tr>
<td>Glare</td>
<td>3.2</td>
</tr>
<tr>
<td>Procedure writer has not seen task/workplace</td>
<td>3.2</td>
</tr>
<tr>
<td>Incompatibility between resources</td>
<td>3.2</td>
</tr>
<tr>
<td>Revision not validated/prototyped</td>
<td>3.2</td>
</tr>
<tr>
<td>Outdated procedure</td>
<td>4.8</td>
</tr>
<tr>
<td>Procedure produced without task analysis</td>
<td>4.8</td>
</tr>
<tr>
<td>Did you need to make task more interesting?</td>
<td>4.8</td>
</tr>
<tr>
<td>Written rules to explain maintenance activities</td>
<td>6.3</td>
</tr>
</tbody>
</table>

28 August 2018
Findings – Summary

Multiple CFs contribute to FFP

A multi-level challenge

Documentation not the top CF

Social/cultural issues are the major CF

Safety Culture!
PEAR, of course
Managers
AMTs
Supervisors
Inspectors
Authors

Peer Pressure
Commitment
Reinforcement
Follow Prs.

Resources

Good
Access &
Lighting

People

Actions

Environment

Enforce Policy
Peer Pressure
Culture

Data}

Design
Templates
RII
Technology
Training
Welcome to the Course!

FFP SAFETY CHAMP

I, ______________________, pledge to champion an improved culture of procedure following at my workplace. I will not "pass the buck" on FFP to coworkers or other entities. I will keep FFP safety champion skills - such as accountability, communication, leadership, and problem-solving - at the forefront of my daily attitude. Through my words and actions, I will demonstrate my dedication to detecting and addressing FFP risks. By honoring this pledge, I will be doing my part to eliminate FFP risks for good.

How can I respond and put this slide to use?

I have excuses...

I have results...

Select Next to continue.
FFP: The Buck Stops with Me

Safety Champion Tools

Spend some time now to learn about the tools you can use to become an FFP Safety Champion.

- Accountability
- Communication
- Self-Motivation
- Leadership
- Responsibility
- Teamwork
- Problem Solving
- Decisiveness
- Work Under Pressure
- Flexibility
- Negotiation

Select each graphic for more information, and then Next to continue.
AMT’s Commitment Checklist:

☐ I am current, qualified, and fit for duty.
☐ I am committed to follow all current procedures.
☐ I have current procedures available at the task site.
☐ I will follow procedures in the proper order.
☐ I will report missing or unclear procedures.
☐ I will check part effectivity and serviceability.
☐ I will set a good example on procedural adherence.
☐ I will manage my time and work pressures.
AFTER the task
PROCEDURE FOLLOWING

AMT’s Commitment Checklist:

☐ I set a good example on procedural adherence.
☐ I followed all maintenance procedures, in order.
☐ I reported missing or unclear procedures.
☐ I signed off each task as required.
☐ I recovered from interruptions.
☐ I did not use “norms” – undocumented procedures.
☐ I mitigated personal and environmental risks.
☐ I managed job pressure.
I, ____________________________, pledge to champion an improved culture of procedure following at my workplace. I will not “pass the buck” on FFP to co-workers or other entities. I will keep FFP safety champion skills – such as accountability, communication, leadership, and problem-solving – at the forefront of my daily attitude. Through my words and actions, I will demonstrate my dedication to detecting and addressing FFP risk. By honoring this pledge, I will be doing my part to eliminate FFP risk for good.
www.followprocedures.com

Launching date: September 30, 2018
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Human Factors in Aviation Maintenance

What We Do

The overall goal of Aviation Maintenance human factors research is to identify and optimize the factors that affect human performance in maintenance and inspection.

Research attention to personnel includes:

- Qualification
- Training
- Motivation
- Worker safety
Fatigue Support

Federal Aviation Administration

[Image of a page showing various fatigue countermeasures and strategies, including topics like quantity of sleep, circadian rhythm, shiftwork, quality of sleep, family & social life, overtime, illness, time pressures, nutrition, caffeine & alcohol, stress, and lack of exercise.]
# Advisory Circular

**Subject:** Maintainer Fatigue Risk Management

**Date:** 12/2/16  
**AC No:** 120-115  
**Initiated by:** AFS-300  
**Change:**

## 1 PURPOSE

This advisory circular (AC):

1. Describes the basic concepts of human fatigue and how it relates to safety for aviation maintenance organizations and individual maintainers.

2. Provides information on Fatigue Risk Management (FRM) in terms of fatigue hazards and mitigation strategies specific to aviation maintainers.

3. Describes the benefits of implementing FRM methods within aviation maintenance organizations.

4. Identifies methods for integrating FRM within a Safety Management System (SMS) (if applicable).
BTW: AC120-72A for HF Training

Advisory Circular

Subject: Maintenance Human Factors Training

Date: 4/11/17
Initiated by: AFS-300

AC No: 120-72A
Change:

1 PURPOSE. This advisory circular (AC):

1. Provides descriptions of references and training materials to ensure that the reader can assemble a Maintenance Human Factors (MxHF) training program matched to the applicable needs of their specific organization.

2. Provides many sources of current information to develop, implement, reinforce, and assess MxHF training materials.

3. Streamlines MxHF training development at the local level.

4. Is not mandatory, like any AC, and does not constitute a regulation.
## IN THIS ISSUE:

<table>
<thead>
<tr>
<th>Table of Contents</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authors of this Newsletter</td>
<td>2</td>
</tr>
<tr>
<td>Training Solutions to Meet the Looming</td>
<td>3</td>
</tr>
<tr>
<td>Maintenance Personnel Shortage</td>
<td>4</td>
</tr>
<tr>
<td>Human Factors and SMS Implementation</td>
<td>6</td>
</tr>
<tr>
<td>Mechanic Training Changes are Coming</td>
<td>8</td>
</tr>
<tr>
<td>Larger Focus on Human Factors Anticipated</td>
<td>10</td>
</tr>
<tr>
<td>Coming Soon to a Computer Near You!</td>
<td>12</td>
</tr>
<tr>
<td>A Primer: Two Upcoming Human Factors Guidance Documents</td>
<td></td>
</tr>
<tr>
<td>So... You Want to be a Writer?</td>
<td></td>
</tr>
</tbody>
</table>
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Thank you,
Bill Johnson