Human Factors in Aviation Maintenance

Course Outline and Syllabus

Objective

Air travel is considered one of the safest means of transportation in the world today, yet every now and again an accident that shakes our complacency occurs. All too often, as we look at the accident cause, we say, *"How could such simple errors have combined to cause such a catastrophe?"*
An in-depth review of the events after the fact will reveal, time and again, that a series of human errors (known also as a chain of events) was allowed to form until the accident occurred. In about one in ten accidents, maintenance errors are part of that chain of events. If we can break the chain of events at the maintenance level, the accident will not occur.
In this three day course we are going to look at what can happen to cause a well-meaning Aircraft Mechanic/Technician (USA) or Aircraft Maintenance Engineer (Canada, Australia, New Zealand, Europe, etc…) to make a maintenance error. We will also look at what we can do to prevent ourselves from becoming a link in a chain of events that leads to an accident.
This will be a three day course (21 hour) course that will be taught to a people in groups of three or more. I would like to have a minimum of twelve people in each course in order to break them up into teams (each team/table will have three to five people) and they will do the exercises as a team event. A point system will be in place with the exercises and study questions throughout the course. Also, random trivia questions will be displayed and the team that gets the answers correct will get to add to their point total. The team with the most points at the end of the course will definitely have bragging rights. This keeps it fun and memorable!!!

The student will get out of this workshop only what they are prepared to put into it. The student should be open-minded, but if they disagree with anything that is being said, they should feel free to speak up. Because we are dealing with the human in the equation, you will find that there are often no "right" or "wrong" answers; there is only "what works for you," which could work for someone else if you share it with us during this workshop.

Accreditation

AccuJet's technical training courses meets the Air Transport Association Specification 104 recommended guidelines at Level II/III - Line and Base Maintenance Training and also meets the FAA requirements contained in FAR 65.93(A)(4) for Inspection Authorization Renewal.

Enrollment Prerequisites

Each student should be a licensed aircraft technician, and/or currently employed by a FAA certified repair station or aircraft operator.

Classroom Size

20 students or less is preferred per class.

Course Duration

The course is a total of three days (21 hours training completion time).

AccuJet Aviation Maintenance Training
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Training Location

Classes are usually held either at or near customer's facility.

Training Aids/Publications

A student manual along with a digitally projected multi-media course presentation is used during the course.

Instruction Method

Instructor lead classroom discussion (lectures) along with classroom participation (questions, comments). Students are certainly encouraged to participate throughout each session.

Completion Standard

21 hours of training will result in a Human Factors in Aviation Maintenance Course Completion Certificate and Summary Sheet.

Course Outline/Schedule

The Human Factors in Aviation Maintenance Course outline is shown below. Class times will be from 8:00am to 4:00pm with an hour for lunch. Please make your travel arrangements to correspond with these times.

DAY 1 = 7 hrs	DAY 2 = 7 hrs	DAY 3 = 7 hrs
• Course Introduction • History of Accidents • Human Error • Intro to the "Dirty Dozen" • Survival Exercise • Team Work • Team Work Exercise	• Continue with Team Work Exercise • Communication • Communication Exercise • Shift Change Exercise • Assertiveness • Case Study: McDonald Douglas 369	• Fatigue • Stress • Distraction • Human Factors in Aircraft Maintenance • Lack of Awareness • Lack of Knowledge • Lack of Resources • Case Study: Fokker F-28 • Pressure • Norms • Complacency • Case Study: Boeing 737 • Conclusion and Awards

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