Teamwork and Disposition Breakout Session

Welcome and Introduction

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Date: September 13-15, 2005

General Comments:

- *How will TCO's be incorporated?* Rule making is a long-term process, but there's a short term need in this area that can only be met by policies. This class will eventually lead to a regulation describing what training is required for practicioners. There will be an FAA policy out next year describing what must be container in courses of this nature. (per Larry I) There isn't any hard rule that says you have to take the course. Understand the need, but nobody there to make them do it! (Money based issue) Should the course be mandatory? Need to administer the policy that we have.
- *Class scope must be limited:* Modules must include only what is necessary. This class should not specify which data to be discussed. (Doug Larson) This class needs to be focused on "What you need to worry about" (Larry I) There should be a large caveat that says. "This is an overview only class." Noting that approved data must be used should be the intent of this class. Course content will be covered in different ways by different training providers. The key here is that the TCO's are covered, and that different Training Providers will achievd covering these TCO's in different ways. (Gary Oakes) Consensus needs to be developed and this course could aid in developing concensus.

General Comments: (Cont.)

- *Identify roles relative to target audience*: (Engineering staff, quality control staff – fundamentally decide the definition of target audience. Does this address Transport only or also GA (Course was intended to cover all aviation sectors.) TCO-E should be rewritten to include other than Transport Aircraft (GA and Rotorcraft) .
- *How to enact these TCO's at Training Providers:* How will the content of this course be incorporated by the Training Providers if they aren't forced to by the FAA? Angie K suggested that practicioners may want to take the class voluntarily. Tim H said practicioners won't spend money for training unless forced to. The new 145 rule requires training per Rusty Jones(?), which is approved by PMI.
- *Written Text may need an iteration*: Orient written material into supporting paragraphs that detail each specific point being made. Photographs may be valuable in conveying ideas. Be careful not to use contradictory terms. Terminology – be specific, more universal.

General Comments: (Cont.)

- Should refer to 14CFR in presentations and course materials instead of FAR
- Acronyms should be spelled out or include glossary.
- Extract engineering qualifications from D and put in C (first session third floor covering D and H)
- Consider revising the TCO's to insure that the focus is on what critical issues need to be addressed as opposed to how to do it.(Mainly towards the laboratory modules)
- Change gender to non-specific pronouns.
- When ever SRM is called out unless you are talking specifically about the SRM the reference should be "approved repair information". When referring to FAA substitute regulatory authority.

TCO C Module – Understand Roles and Responsibilities, The Team Members

- **General Comments**
- *Expand audience to beyond Boeing Environments:* (Part 25 vs. part 23). Part 91 and GA Operators. GA and VLJ will be as complex as major operators with regard to altitude, speed, payload performance. (23.573 vs 25.571 data per Gary Oakes). Part 23 does not provide the same level of safety as Part 25. Make sure to focus on the subject of the course not all of Part 23(structural integrity and maintenance).
- **C1: Identify the steps required in repair design, process planning, inspection, and approval. Smaller organizations may require individuals to have multiple skills (Inspectors, Technicians, and Engineers). Clarify the first step in finding damage.**
- **C2: Describe the steps in the bonded and bolted repair processes, including details of damage discovery through repair completion and approval. Make sure this falls within the context of this TCO. When do the individual skills come into the process? Is most of it better placed in F, G or I?**
- **C 3: List of basic NDI methods with their limitations for damage assessment and post-repair inspection. Is this the right place for it? Is most of it better placed in H? Visual inspection is the primary means of detection. Leave visual in this section.**
- **C 4: Distinguish between skills needed for structures engineers, inspectors and technicians dealing with composite maintenance and repair. Distinguish between roles for the various types (disciplines) of engineers. Change gender to non-specific pronouns.**
- **J 8: Know your skill limits and who to go to for help.**

TCO E Module – Identify and Describe Information Contained in Documentation

- **General Comments:**
- *Training Providers will incorporate TCO's in their own way:* Training can be from a variety of sources as long as TCOs are met with regard to future policy making guidance by FAA.
- *FAA and EASA are Different:* Modules should identify significant differences between EASA and FAA regulatory requirements. Don't highlight details just state possibilities for differences between all regulatory authorities. Provide a cross reference between FAA and other regulators. Will this include DoD as well?
- **E1: Describe Requirements in Material and Process Specifications and Approved Repair Information**
- Describe types of approved documents, and then describe their contents. Could include other FAA composite guidance and policy in this area. The wording for the TCO is awkward and leads to difficult reading. The order of the descriptions needs to be reevaluated.
- **E2: Demonstrate the Use of Source Documents**

TCO E Module – Identify and Describe Information Contained in Documentation (Cont.)

- *GA and Other industries should be addressed along with Large Transport:* With advances in GA, need to apply standards to both fields. May want to include Part 91 and part 121 operators. Add other operating rules. The approach should be broader to include GA systems because they have different requirements. Consider rewording TCO to better fit available course time and module content.
- **E3: Identify and demonstrate the use of regulatory documents**
- *Ensure course content is consistent with regulatory processes:* Careful review of the course content against regulatory processes should be made when course content is more completely defined to ensure course content is consistent with regulatory processes. Consider rewording TCO to better fit available course time and module content.
- **E4: Understand the requirements and engineering approvals necessary for valid sources of technical information and maintenance instructions**
- Consider rewording TCO to better fit available course time and module content.
- **May consider revising the order in which E3 and E4 are presented. Generalize and summarize regulation language for course use.**

TCO K Module – Case Team Studies [LAB #6]

- **K1: Identify the structural component and understand the specific configuration and materials used for fabrication of the damaged component.**
- **K2: Perform a damage assessment and map the damage as accurately as possible using visual inspection, the tap test or P/E ultrasonic equipment**
- **K3: Interrogate (with rubber hose) Identify and interpret the SRM approved source documentation to understand the component allowable damage limits, and review any repair options contained in the SRM based on the mapped damage**
- **K4: Write an appropriate repair procedure and in-process QC plan based on the chosen repair option. Reword to better describe the nature of the laboratory task (high level).**
- **K5: Write an appropriate post-repair inspection and approval plan. Reword to better describe the nature of the laboratory task (high level).**
- **K4 and K5 should (?) be combined into one item.**