The View from Washington

BY RIC PERI
VICE PRESIDENT, AEA GOVERNMENT & INDUSTRY AFFAIRS

On April 18, 1775, Paul Revere was sent to warn Samuel Adams and John Hancock of British plans to march from Boston to seize patriot military stores at Concord. Along the road from Boston to Lexington, he warned residents that "the British are coming!"

For over two years, AEA has been sending out the warning that "repair station training is coming" and now it has arrived. Fortunately, because of the much needed delays in publishing the Advisory Circular, we're ready!

Beginning April 6, 2006, Part 145 repair stations will be required to submit a training program to the FAA for approval. But that doesn't mean that every repair station must submit their program by April 6. Remember, there is a staggered approach to implementing this program.

First off, the "submission date" is the date you must submit your program to the local Flight Standards District Office (FSDO). It is not the date you must begin implementing your training program. You do not implement your program until you receive your training program back from your FSDO approved.

Your "submission date" is between April 6, 2006 and April 30, 2007. It is based on the month that your original Repair Station Certificate was issued. If your certificate was issued in June, your due date to submit your training program is June 30, 2006. The only month that is a bit different is April. If your certificate was issued on April 1 through 5, your program is due to the FAA on April 30, 2007. If your certificate was issued between April 6 and April 30, then your due date will be April 30, 2006.

AEA has been developing the tools necessary for the member repair station to comply with the rule, enhance their employee training, and minimize the administrative impact of the program mandates on your business. This year's regional meetings all have an extensive program designed to help the avionics industry develop their individual training programs.

One of the basic concepts of developing your training program is not to assume you're doing things wrong today. It is important to remember that the regulation applies to all repair stations, so the language is pretty generic. The words and intent of the rule is very important.

The FAA states the "employee training program approved by the FAA must include initial and recurrent training requirements." And that the "training program must ensure each employee assigned to a maintenance (including inspection), preventive maintenance, and alteration task is capable of performing the work."

Most of what the FAA mandates isn't a new requirement. Technicians have always been required to be qualified to perform the assigned task. And while it may be possible in some disciplines to "learn by doing," avionics is not one of them. While there aren't any statistics to support my beliefs, I believe the avionics technician working in general aviation today is the most trained individual in aviation maintenance. So I don't find much of the actual training requirements to be all that new for the avionics industry.

So what is training? The AC calls this, "the various training methods that may be used." And while it lists these specific methods of informational delivery, the programs are not limited by this. If there is another method that you prefer, you can use it.

The following are the six methods of training listed in the AC.

1) Formal Classroom Instruction. This training can be provided as a formal course delivered by an instructor in a classroom setting.

2) On the Job Training (OJT). OJT is knowledge obtained while participating in accomplishing the task under the direction of a qualified person or watching another demonstrate a task or activity and then accomplishing the same action under supervision until satisfactory results are obtained.

3) Computer-Based Training (CBT). Interactive CBT courses can be used to impart knowledge and teach practical skills at the correct pace for each employee. CBT can be accomplished at any location at times convenient for each employee.

4) Distance Learning. Distance learning applies to situations where the instructor and the employees are not in the same location. It can take the form of mail-based correspondence courses using written, videotaped or CBT materials; videoconferencing; teleconferencing; or a combination of both–sometimes called "virtual" classrooms; or Internet- or intranet-based instruction that allows employees to interact with an instructor or with courseware similar to CBT.

5) Embedded Training. Some equipment, particularly that which uses software for testing or to perform a maintenance function, has training embedded into the process. Incorporating a tutorial

or "help" menu are simple examples of how a software program can provide instruction as the user performs a specific task.

6) Other Methods Include Self-Study, Case Study, and Seminars. These methods of training or acquiring knowledge can be accepted by the repair station provided the information gained applies to the job function and skills required to perform the work capably.

The AC also lists some common training providers. You will find all of your regular sources of training are listed here. The following are the six most common sources of training used by repair stations.

1) Original Equipment Manufacturers (OEM). OEMs may deliver technical information regarding maintenance or alteration on its articles by formal classroom instruction, OJT, distance learning, embedded technology or CBT material.

2) Aviation Maintenance Technical Schools (AMTS). An AMTS approved under Part 147 can be an effective source of training for repair stations, particularly for basic knowledge and skills.

3) Operators or Other Repair Stations. Operators may provide specified repair station employees required inspection items and operator's program training. The operator may also provide other general training, such as regulatory requirements.

4) Government Agencies. Federal, state, and local government agencies (including the FAA) provide training on OSHA, EPA, and hazardous materials recognition and handling. They may also be a source of training related to maintenance human factors and general safety subjects.

5) Trade Associations. Entities that represent certain segments of the aviation or business community offer training classes on technical and regulatory subjects.

6) Other Sources. There are a variety of other training sources, which include, but are not limited to, independent seminars, product demonstrations, computer-based instructions, videos, and equipment manufacturers. All sources of information should be viewed as potential training sources.

As you can see, for those members who have utilized AEA and our OEM and other training partners for technician training on regulations, safety, new technology and legacy equipment, your actual training requirements are almost complete.

The FAA uses the word "capability" to describe the knowledge and skills required to properly accomplish assigned tasks. The purpose of the repair station's initial and recurrent training program is to ensure repair station employees performing maintenance (including inspection) preventive maintenance and alteration are capable of performing assigned tasks as required by section 145.163. The key to this new program is to show (or be able to show) that your technicians are capable to do their assigned tasks.

AEA IS YOUR TRAINING PARTNER

AEA's approach to this training program is two-fold. First we will help you write your manuals. This is an important part because, unlike your previous repair station manual which was accepted as long as it met the regulations, the training program must be approved by your inspector. This will be a daunting task for both the repair station and the FAA inspector. I know only a few inspectors who have any formal training or experience in training and education design, so we will need to be very patient and provide a clear and complete training program that meets the intent of FAR 145.163, but still keeps it simple and manageable for the repair stations.

The second part of our approach is to provide you with the tools that allow you to "show" compliance with the intent of FAR 145.163.

Your repair station training manual provides the "what" you will do for training and education of the technician. But the supporting documents (the real foundation of a successful program) will show you and the FAA "how" you show compliance with the regulations, "how" you measure the training needs of your employees, and "how" you continually monitor your programs effectiveness.

The training program is coming… the training program is coming! Bring your pen and paper to the regional meetings, your Association will be there to help both you and the FAA achieve your training goals with a complete and simple program.

AEA is the first choice for regulatory compliance for the avionics industry. See you at the Regionals!

Visit www.aea.net/regional for complete meeting information.

Regulatory Update

United States

FAA Publishes Repair Station Training Program Advisory Circular

Advisory Circular (AC) 145-10 provides information on developing the repair station employee training program required under Title 14 of the Code of Federal Regulations (14 CFR) part 145, section 145.163, categories of training, training program components, and sample training programs.

This AC provides an acceptable means of showing compliance with 14 CFR section 145.163. The AC also contains additional governmental, mandatory and non-mandatory subjects not specifically required by section 145.163. The FAA acknowledges that the additional training outlined in this AC exceeds that required by section 145.163, but feel is necessary to provide these subject samples as a guide for a complete and comprehensive safety directed program. If the repair station chooses to develop a training program with the additional non-regulatory subjects, only those required by regulation would be subject to FAA approval. One means of developing this type of program could include a separation of the regulatory and non-regulatory training subjects within the training manual.

The AC is available on Resource One and will be extensively discussed at the upcoming AEA Regional Meetings.

New Guidance for EASA 145 facilities in the United States

Flight Standards Handbook Bulletin for Airworthiness (HBAW) 05-04: Transition from the Joint Aviation Authority to European Aviation Safety Agency (EASA) Part 145 Approvals for Repair Stations Located in the United States

HBAW 05-04 provides updated information and guidance to aviation safety inspectors (ASI) of changes made by the European Aviation Safety Agency (EASA). This bulletin also provides ASIs with guidance to evaluate an initial/continuation/ amendment approval to an EASA Part 145 approved organization and make a recommendation or non-recommendation for approval to EASA. The attachment is a revision of volume 2, chapters 167, 168 and 169 from Federal Aviation Administration (FAA) Order 8300.10, Airworthiness Inspector's Handbook. These chapters will be finalized and incorporated into the handbook in a future change.

Effective immediately, all ASIs with domestic U.S. repair station certificate responsibilities for those repair stations that also hold EASA Part 145 approvals should provide a copy of this bulletin to the appropriate repair stations. Each ASI will ensure those repair stations are in compliance with the requirements specified in the attached revised handbook chapters. When a repair station is in compliance with the attached handbook chapters it will also be in compliance with EASA Part 145 special conditions specified in the current BASA/MIP agreements.

ASIs should require each repair station holding EASA Part 145 approvals to submit its revised EASA Part 145 supplement at least 60 days before its current EASA Part 145 continuation approval is due. The ASI should review the EASA supplement in accordance with attached handbook chapter 168 and issue FAA acceptance upon determining compliance with the guidance.

Availability of Changes to Advisory Circular 27-1B, Certification of Normal Category Rotorcraft, and Advisory Circular 29-2C, Certification of Transport Category Rotorcraft

In the July 7, 2005, Federal Register, the Federal Aviation Administration published a notice announcing the availability of changes to AC 27-1B, Certification of Normal Category Rotocraft, and AC 29-2C, Certification of Transport Category Rotocraft for the following AC paragraphs: 27.672, 27.683, 27.777, 27.1321, 27.1585, AC 27 MG 8, AC 27 Appendix A, AC 27 Appendix B, 29.45, 29.59A, 29.75A, 29.337, 29.631, 29.672, 29.683, 29.777, 29.1321, 29.1333, 29.1351, 29.1585, AC 29 MG 8, AC 29 Appendix A, and AC 29 Appendix B.

These AC paragraphs are final and replace the existing AC paragraphs dated 9/30/99, as well as replace any updates to any paragraphs in Change 1 dated 2/12/03. AC 27.865B and AC 29.865B, External Loads, are revised and replace AC 27.865B and AC 29.865B dated 9/30/99. AC paragraphs 27.865B and 29.865B also replace and cancel AC 27 MG 12 and AC 29 MG 12 dated 9/30/99, as well as any updates in Change 1 dated 2/12/03. Also, AC 27 MG 18 and AC 29 MG 18, Helicopter Terrain Awareness and Warning System (HTAWS), are new AC paragraphs and are now final.

All of these AC paragraphs will be included in the upcoming Change 2 update.

You can get electronic copies of these changes from the FAA by logging on to http://www.faa.gov/aircraft/draft_doc/.

Canada

Transport Canada Issues Revised GPS Installation Guidance

TCCA has issued Policy Letter PL 551-003 to replace ACPL 17. PL 551-003 is intended to complement existing FAA guidance material (AC 20-138A) to clarify certain issues, and to identify unique Canadian considerations that must be addressed for GPS installations in Canadian-registered aircraft. Some key points from the PL are:

TCCA human factors guidance per PL 523-008 is to be followed.

Installations classified by the FAA as a minor alteration, are considered to be major modifications by TCCA, but may be done using specified data in lieu of approved data.

TCCA Flight Test guidance on GPS airplane/rotorcraft flight manual supplement content per TC AC 500-014 is to be used in place of Appendix 4 of FAA AC20-138A.

For GPS equipment that is not designed to navigate with reference to "True Tracks" or cannot interface to other installed equipment when operating with reference to "True Tracks," an appropriate limitation is required in the Flight Manual Supplement.

Aircraft with multiple navigation sources that share a display device (e.g. the Course Deviation Indicator or the Horizontal Situation Indicator) should incorporate a dedicated "navigation source selector." ACPL 11 provides further guidance on this topic.

CBA AC No. 0123R should be consulted to determine if there are any additional operational requirements for GPS instrument approach capable installations.

PL 551-003 may be viewed in full at: http://www.tc.gc.ca/CivilAviation/certification/guidance/551/551-003.htm

Transport Canada Issues New Operational Regulations for Third Attitude Indicator

CAR 605.41 imposed a requirement for all turbojet-powered aeroplanes operating under Part VII Commercial Air Services and for all transport category aircraft to have a third functional, independently-powered attitude indicator in the cockpit.

CAR 605.41 has been amended in order to harmonize air carrier aircraft equipment requirements with those of the FAA and to recognize and correct wording which led to the application of this regulation to aircraft which were not, upon initial promulgation of the regulation, intended to require a standby attitude indicator. The following aircraft will no longer be required to have a third (standby) attitude indicator:

Turbojet-powered airplanes operated under Part VII, with a maximum certified take-off weight (MCTOW) of less than 5,700 kilograms (12,566 pounds) and was operated in a Canadian commercial air service on October 10, 1996;

Transport category helicopters not operated in IFR flight;

Transport category airplanes, powered by reciprocating engines, manufactured before January 1, 1998; or

Transport category aircraft not operated under Part VII.

Turbo-propeller powered airplanes operated under Part VII, with a passenger-seating configuration of 30 seats or fewer, excluding crew member seating, with a payload capacity of 3,402 kilograms (7,500 pounds) or less and manufactured before March 20, 1997, will initially be excluded from the requirement for a third attitude indicator. However, after December 20, 2010, all turbo-propeller powered airplanes with a passenger configuration of 10 seats or more, excluding pilot seats, operated under Part VII (that is, all passenger-carrying turbo-propeller powered airplanes operating under Subpart 704 Commuter Operations or Subpart 705 Airline Operations), will be required to be equipped with a third (standby) attitude indicator that meets the Aircraft Equipment and Maintenance Standards. The remaining smaller turbo-propeller powered aeroplanes (those with fewer than 10 passenger seats) will continue to be relieved of a requirement for this equipment.

Europe

EASA

Fees and Charges: Following the issue of the fees and charges regulation EC 488/2005 in May of this year, EASA has now issued a frequently asked questions page on their website especially dealing with fees and charges issues such as how to calculate the value of activities and how to count the number of active technical employees.

Frequently asked questions were also amended with the latest information on Part-M, -66, -147 and -145. Among the new FAQs you will find answers to questions relating to Cat. A certifying staff and qualified mechanic capability, releasing aircrafts after troubleshooting, deferring defects according to MEL by a pilot, and the definition of "maintenance experience."

NPA15-2005: A draft decision of the executive director to adapt Article 21A.204(b)2(i) and Appendix VI of Commission Regulation (EC) No 1702/2003 (EASA Form 45, Noise certificate) to amend the Certification Specifications for Aircraft Noise (CS36) was issued in late July and was available for comments until August 25, 2005.

Decision 2005/04/R of the executive director of the agency adopted the 2006 rulemaking program including highlights such as:

Validity, issuance and involvement of EASA in the issue of a permit to fly. (NPA planned for 1Q/2006)

Approval for Night VFR applicable for VLAs. (NPA 2Q/2005)

Issuing of a CS-25 flight test guide. Presently AC25-7A is widely used. (NPA 3Q/2005)

Add/amend ETSO with revised documents for CVR, FDR, GPS-WAAS, TAWS, light aviation secondary surveillance transponder. (NPA 3Q/2005)

AMC on operational approval of electronic flight bags (EFB). (NPA

Continued on following page

Frequently Asked Questions

TOPIC:

Avionics for Light Sport Aircraft

QUESTION:

What are the requirements for installing avionics in a Light Sport Aircraft?

ANSWER:

Although still in their infancy, I raised this question to the FAA's Light-Sport Aviation Office (AFS-610) and the Chair of ASTM F-37 committee which developed the LSA standard.

According to the FAA, there is differing criterion depending on whether the aircraft is a factory built aircraft or an amateur built aircraft.

For factory built aircraft two criterions must be met: you must qualify the aircraft and the installer.

In order to install avionics in a Light Sport Aircraft, the aircraft manufacturer must allow the installation either in their maintenance manual or by specific authorization.

And the repair station personnel must be specifically trained and qualified by the aircraft manufacturer to perform maintenance, including alterations such as the installation of avionics.❑

Note: AEA offers these Frequently Asked Questions (FAQs) in order to foster greater understanding of the Federal Aviation Regulations and the rules that govern our industry. AEA strives to make them as accurate as possible at the time they are written, but rules change so you should verify any information you receive from an AEA FAQ before you rely on it. AEA DISCLAIMS ANY WARRANTY FOR THE ACCURACY OF THE INFORMATION PROVIDED. This information is NOT meant to serve as legal advice – if you have particular legal questions, then these should be directed to an attorney.

REGULATORY UPDATE

Continued from page 19

2005)

Issue of a guidance material to RNP-RNAV approach operation. (NPA 2005)

Amendment of AMC 20 document with TGLs remaining in JAA AGM such as RVSM and VHF 8.33 kHz relative to airworthiness and operational approval. (NPA 3Q/2005)

Rules and guidance intended to set the standards for mitigating the risk of ageing electrical cables, by appropriate design and maintenance measures. (NPA 4Q/2005)

Commercial air transportation by single engine aircraft in IMC. (NPA 4Q/2005)

JAA

NPA OPS-43 regarding Circuit Protection Devices (only replaceable fuses) installed on the flight deck intended for replacement in flight was issued for comments.

TGL 10 Rev.1 on the Airworthiness and operational approval for precision RNAV operations in designated European Airspace was issued. It specifically addresses database integrity and is introducing the EASA/FAA Type 2 Letter of Acceptance (LOA) to demonstrate compliance with EUROCAE/RTCA document ED-76/DO-200A.

Australia

New database for the aviation industry

According to CASA, Australia's aviation industry will be a winner as a result of a new and improved Civil Aviation Safety Authority (CASA) database. The upgraded regulatory database will help the aviation industry to do business with CASA more efficiently and smoothly.

The database will hold all the regulatory details of pilots, engineers, air operators, maintenance organizations and certified aerodromes. It will also hold all aircraft registration information. Known as Aviation Industry Regulatory System – or AIRS – the database will become operational during September this year. The records of more than 30,000 aviation individuals and organizations must be transferred to AIRS from old data sources within CASA, as well as more than 12,000 aircraft registrations.

To achieve an accurate and timely change-over to the new system, CASA must minimize regulatory business with the aviation industry during September. Pilots or engineers who need to renew or change their licenses during September were encouraged to make their changes well before the end of August.

Normal regulatory business will resume in October, using the new and improved AIRS database.

CASA apologizes for the inconvenience during September and asks for everyone in Australia's aviation industry to be patient while a better information system is being commissioned. ❑