

The View from Washington

BY RIC PERI VICE PRESIDENT, AEA GOVERNMENT & INDUSTRY AFFAIRS

t's a new year. The celebrations are over. Thoughts of the New Year's resolutions are in the fore thoughts of businesses throughout the world. And what are yours?

Many businesses begin the year with a house-cleaning; they start the New Year by cleaning out the clutter from the previous year. Maybe you plan the year with a brainstorming session to see how your business can operate more efficiently, improve productivity, decrease costs and increase profits.

Your Association worked very hard over the past few years to provide you with more tools so that you can tune your business to best suit the business model you designed. Whether you are a repair station performing maintenance and repair of avionics systems, an installation shop or the manufacturer of new technology equipment, 2003 was a good year.

But just like the technician who has done things the "old" way for decades and is hesitant to explore those 'new' tools, today's businesses have to make the decision to utilize the business tools that have been made available. And just like the transition from the old way to the new way, training takes time but is an investment in tomorrow's efficiency.

Like any new tool, these business tools may improve efficiencies when used in the right application but may be cumbersome and time consuming in the wrong application. Each business needs to evaluate these business tools that the Association has brought to the table and determine which ones will improve your efficiencies and which ones really don't fit your particular application.

14 CFR Part 145 is the regulation that governs the management and design of a repair station. Over the past decade or so, the regulations and guidance published by the FAA had deteriorated to the point that the local office was needed to make more and more individual determinations. These individual determinations tended to be more prescriptive than the other parts of the regulations. The revised Part 145 was published in 2003 with a number of changes that added business tools to your tool box.

The remake of the Part 145 regulations resulted in updating both the regulation and guidance material so that the instructions that guide the daily operations of a repair station are performance based and less prescriptive. In addition, while the local authority tended to inject a certain amount of personal preferences into the "older" prescriptive approach to repair station manuals, the "new" performance based approach to Part 145 manuals should minimize if not totally eliminate the local authority's personal preferences. (Remember, the new Repair Station Manual and Quality Control Manual must be acceptable to the Administrator; they do not have to be accepted by your local inspector.)

These changes should help the repair station better manage their administrative burden imposed by the local inspector better. Typically, it is

the prescriptive elements of an inspector's personal preference (or inspector's advice) that generate the revisions to the repair station manuals. To keep the repair station from falling prey to these personal preferences, under the revised Part 145, the local inspectors must provide the repair station with a written description of how the repair station manual does not conform to the FARs. If the inspector does not provide the repair station with this written notice to correspond to any deficiencies they found, the recommendation from the inspector is that of a well-meaning associate, take it as such and evaluate the recommendation as you would from any other well-meaning associate.

One of the more efficient tools that Part 145 introduced to the repair station is their ability to manage technical data and manual requirements rather than the older "one-size-fits-all" "keep everything current at all times" approach of the old 145. Previously, every manual in a repair station's technical library was required to be kept current all of the time. Under the provisions of the new 145, technical data need only be current when the work is being performed. This allows a repair station to manage their technical library in a manner that best suits their business model; those manuals that are often used can be kept current all of the time while the seldom used manuals can be updated when needed.

The need to maintain special tools and test equipment requirements now tends to follow the logic of the technical library requirements. The repair station needs to determine the most efficient way to manage special tools and test equipment then establish a procedure to manage these tools and equipment. If it is more efficient for the repair station to rent required equipment rather than purchase it outright, the new 145 supports this decision. And like the technical library, it is not a "one-size-fits-all" approach, the repair station determines how best to manage their tools and equipment (while still complying with the tool, equipment and calibration criteria of the regulations), develop a management procedure, then follow the procedures that they established.

The Association has worked very hard over the past five years to ensure a repair station could develop a business plan that best suits the local business environment and that the repair station tools would be available if they chose to use them. Over the past year, AEA has held no less than 14 individual training sessions on these new tools and will continue to highlight some of the new business tools that are available to AEA member repair stations in the coming year.

Another area where 2003 brought the industry new tools was with alterations and equipment installations. At no time during the recent past can I remember a time when industry had so many tools available to use to assist in the installation of new equipment. The FAAhas given us these options if we choose to use them.

The Field Approval process has been streamlined, enhanced and simplified. Now before I get lots of email questioning my logic, let me offer that while industry has received these new tools (ways of performing field approvals) it is a new process for not only industry but also the field inspectors. And like most of us, it is easier to rely on those tools that we are most comfortable with rather than learning how to use the new tools. In business, the company invests in new technology, processes and equipment and while some employees will gravitate to the new technology like moths to a flame, others reject it like vampires to garlic. It is the business that moves everyone to the new technology so that the business can reap the benefits of their investment. Sometimes it's through training and education; sometimes by removing the old tools and only providing the new tools; and sometimes it is by strict mandate.

The Field Approval process is basically a new business tool both from industries perspective and from the FAA's. Some field inspectors have gravitated to and embraced the improvements in the field approval process. Others have rejected it and have insisted on following the old way. And there is little internal oversight of FAA inspectors to move them to the new philosophy. The Association has worked with FAA Headquarters to provide these improvements, it is up to the business to determine what is the best process to use and to bring their inspector along (kicking and screaming if necessary) to use the new tools that have been made available. The industry is transitioning from a re-active equipment-supplier industry with an antiquated approval process to a proactive technology marketing industry with a dynamic and efficient approval process. Don't let your employees (or inspectors) who are comfortably locked in the '80s keep you and your business from utilizing these enhanced tools to install the latest technologies in today's cockpits.

The enhanced field approval

process provides for better evaluations of alterations which should result in more alterations that can use acceptable data and fewer applications for inspector's approval of alteration data, more consistent results from interaction with the local FAA offices, fewer denials of properly documented requests and a better overall process. Like the introduction of new tools and equipment, the business doesn't always see immediate cost savings, but through learning how to use the tools correctly the business should see efficiency improve and costs go down and the end result is improved profitability for the business.

These tools and other minor business tools that were introduced during 2003 have been highlighted at AEA's Annual Convention and Regional Meetings, the monthly pages of *Avionics News*, and the as-needed AEA Regulatory Updates.

Over the past few years, the Association has been raising the bar on the quality of training held during the annual convention and the regional meetings. Last year's annual convention provided four days of formal training programs that were reviewed and approved by the FAA for IA renewal and for AMT awards. These programs included various 45 minute product-specific training sessions, multiple one and two-hour regulatory sessions to bring the latest issues affecting repair stations to light, a number of four-hour sessions focusing on various regulatory and rulemaking topics, and a full day of business related Maintenance Resource Management taught by FlightSafety International.

The Association continued the focus of the annual convention throughout the regional schedule with

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three full days of technician training. The regional meetings began with phase two of FSI's Maintenance Resource Management, followed by product-specific training, a review of the latest regulatory issues, and two formal regulatory programs on evaluating alterations and a review of the procedures for inspecting and repairing wiring and concluding with a four hour technician training program for Honeywell equipment.

Avionics News has always been a valuable source of information for technicians, but through continuous improvement, your Avionics News has been recognized by the FAA as a source of formal technician training and a valuable source of information and education for the management of repair stations. Repair station management and quality staff should benefit from the latest regulatory information and notification of FAA National policies to the Frequently Asked Questions with answers and references to long lost regulations and policies.

In addition to the regular features on regulatory issues AEA also publishes the latest in Legislative activity that may have an effect on your business, whether it's aviation legislation that Congress is voting on, or a small business initiative to provide additional resources to aviation small businesses, or a change in IRS deductions which encourages making business purchases, or makes your customer's purchases a better value, you'll find the information in the pages of *Avionics News*.

Avionics News should be circulated to every department of a repair station and be an active part of management's monthly review of government rules, regulations and policies. Avionics News should also be included as part of the repair station's technician training program.

Your association has been working to improve the existing repair station tools, the alteration tools that are used to install the latest technologies and the information tools used by your customers to make critical decisions. We have been working to develop new tools for your business to use and to ensure that you have the ability to use any appropriate tool in the daily operation of your business that you choose to use.

As you review these new business tools remember that without proper training the best new tool in the world is nothing more than a poorly designed hammer without proper training. AEA provides this training.

Have a healthy and prosperous New Year..

Regulatory Update

Part 145

This is a reminder that the deadline for the delayed effective date of the "new" Part 145 is rapidly approaching. On September 29, 2003, the FAA announced the delay of the effective date of the new Part 145 until January 31, 2004.

The notice extended the effective date of the final rule amending 14 CFR Part 145 along with certain provisions of Parts 91, 121 and 135 originally published on August 6, 2001 at 66 FR 41088 until January 31, 2004, except that the training program required by Section 145.163 retains the original effective date of April 6, 2005.

The Association was pleased the FAA approved AEA's petition to extend the effective date of the new Part 145. AEA encourages its members to NOT stop working on their Repair Station and Quality Control manuals and to submit them to the local FSDO at the earliest possibility.

Repair Stations who have not ordered their copy of the AEA Part 145 Manual Transition Guidance Workbook should order their copy directly from the AEA website at www.aea.net

ELTs

This is a reminder that back in December 2000, the FAA published a change to Section 91.207 which requires most United States-registered civil airplanes to have an approved automatic type emergency locator transmitter and that the previous exemption for turbojet-powered aircraft expires on January 1, 2004. After that date, all turbine-powered aircraft will also be required to have an approved automatic type ELT.

Canada

Transport Canada Civil Aviation (TCCA) held an Avionics Modification Workshop with the modification avionics industry November 26-27, 2003. This program was the brainstorm of Barry Aylward of Kitchener Aero and John Carr of Northern Airborne Technology. Without their hard work this program would have never been a success. The Association thanks both of them.

Significant progress was made on the following outstanding issues:

Combination FDR/CVR Installations

TCCAhas agreed in principle that it will be acceptable to install a single "Combi" FDR/CVR unit to meet CAR operational requirements for FDR and CVR installations in smaller rotorcraft and fixed wing aircraft. The cut-off points for aircraft size or seating capacity will be identified in advisory material to be published by TCCA early in 2004.

Approved Model List STC

TCCA currently accepts FAA STCs applicable to U.S.-manufactured aircraft, and therefore will accept without further review those FAA STCs with Approved Model Lists (AMLs) on such aircraft. TCCAwill issue advisory material to indicate that installation of complex or multi-function avionics systems using AML STCs would require TCCA approval of any aircraft-specific installation aspects not covered by generic installation instructions included with the STC. Unless the aircraft-specific aspects can be covered using Specified Data, a LSTC would be required.

Frequently Asked Questions

TOPIC: Federal Communication Commission License

QUESTION:

Does a technician need an FCC license to work on avionics systems?

ANSWER:

According to the FCC "you need a commercial radio operator license to repair and maintain all aircraft stations and aeronautical ground stations including hand-carried portable units which are used to communicate with aircraft."

14 CFR PART 87 (FCC Regulations applicable to Aviation Services), Section 87.73 requires that a general radiotelephone operator must directly supervise and be responsible for all transmitter adjustments or tests during installation, servicing or maintenance of a radio station. And that a general radiotelephone operator must be responsible for the proper functioning of the station equipment.

Section 87.69 does allow the licensee (aircraft operator) to make routine maintenance tests on equipment other than emergency locator transmitters if there is no interference with the communications of any other station.

The FCC defines most radio stations used in aviation as part of the Aeronautical Mobile Service, which includes both airborne and land stations. Airborne stations, or aircraft stations, are simply those radios that are used in flight. They may be installed on board a plane, helicopter, blimp or even a manned hot-air balloon. Airborne stations are further defined in the rules as air carrier aircraft stations, used in aircraft that carry passengers or cargo for hire; private aircraft stations; and flight test stations and aviation instructional stations. All airborne stations may transmit and receive only messages necessary for safe flight operations.

Land Stations include: Aeronautical Advisory Stations (also called unicom stations); Aeronautical Multicom Stations; Aeronautical Enroute Stations; Flight Test Stations; Aviation Support Stations; Airdrome Control Stations; Aeronautical Utility Mobile Stations; and Aeronautical Search and Rescue Stations.

Note: AEA offers these Frequently Asked Questions (FAQs) in order to foster greater understanding of 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. AEADISCLAIMS ANY WARRANTY FOR THE ACCURACY OF THE INFORMATION PROVIDED. This information is NOTmeant to serve as legal advice – if you have particular legal questions, you should contact an attorney.

Contact: Ric Peri, AEA Vice President, Government & Industry Affairs 601 Pennsylvania Avenue | Suite 900, South Building | Washington, DC 20004 phone: 202-589-1144 | fax: 202-639-8238 | ricp@aea.net

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Use of Specified Data

TCCA is revisiting policy regarding use of Specified Data for certain system installations. The recently approved NPAs to CAR 571 are proceeding to promulgation, and TCCA will be seeking industry input to define the scope of Specified Data that may be used for certain avionics installations, e.g. IFR GPS, CVR, PFD/MFD.

IFR GPS Installation Approvals

TCCA has agreed to implement a streamlined approach to approval of IFR GPS installations, to allow maximum use of Specified Data, and identify revised requirements for Flight Manual Supplement content and TCCA approval. There will still be a requirement to conduct a flight test to demonstrate system functionality. TCCAwill be meeting with AEAearly in 2004 to finalize details of the new policy, and will then issue appropriate advisory material.

Flight Manual Supplement (FMS) Delegation

TCCA is willing to consider approval of FMS'by delegates (DARs, DAOs), for LSTC approvals on normal category aircraft, where an AML is not used. If the modification is performed using Specified Data, then the LSTC would only be for approval of the FMS. TCCA committed to development of guidelines for delegate approval of FMS, and to revise the existing FMS guidance material, including templates.

EMI/EMC Testing of Avionics Modifications

TCCA will publish a summary of applicable regulatory and advisory material pertaining to EMI/EMC testing of avionics modifications, to assist in standardization of procedures across TCCAregions.

Replacement Precision Instrument Bearings

TCCA agreed to harmonize their policy on acceptance of replacement precision instrument bearings with that of the FAA, as identified in FAA HBAW 98-19. To be acceptable, a replacement bearing must have TSO-C149 approval, and there must be a statement from the bearing manufacturer stating that the replacement bearing is the same part as that supplied to the instrument manufacturer. If the instrument manufacturer alters the part number from the part number identified on the bearing supplied to the instrument manufacturer, then only the instrument manufacturer's bearing (with altered part number) may be used.

Instructions for Continuing Airworthiness (ICA)

TCCA agreed with AEA's proposal that an ICA should only convey unique maintenance or inspection requirements imposed by incorporation of a modification, and that the ICA should not be used to convey or repeat generic data. Also, an ICAdocument should not be necessary just to indicate that there are no ICAs. TCCA will revise TP13850, MSI53 and ACPL22 to adopt the proposed changes to ICA requirements.

In-Flight Entertainment Systems

TCCA is developing specific advisory and guidance material for approval of installation of in-flight entertainment systems. This will be similar to the FAA's Interim Policy Guidance issued 09/18/2000, and will also be applicable to other nonrequired avionics systems.

Installation of Non-Required Equipment

TCCA proposes to classify nonrequired equipment into two categories:

Category 1, for equipment installed

in the cockpit or interfaced to required systems, and used to operate or maintain the aircraft; and

Category 2, for in-flight entertainment systems, cabin electronics, galley equipment, etc.

Advisory material will be published to identify acceptable methods of compliance to applicable airworthiness standards, and TCCA will work with AEA to develop this material early in 2004.

Further information on the Avionics Modification Workshop may be seen at www.tc.gc.ca/CivilAviation/certification/engineering/avionics/Worksho p03/menu.htm

Ric Peri

Vice President, AEA Government & Industry Affairs 601 Pennsylvania Avenue Suite 900, South Building Washington, DC 20004 phone: 202-589-1144 fax: 202-639-8238 ricp@aea.net