

The View from Washington

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Sharing the 411 on Part 145: FAA Proposes Another Change to the 'Repair Station' Rule

n Dec. 1, 2006, the Federal Aviation Administration proposed yet another change to 14 CFR Part 145, the Repair Station rule.

The proposed rule, listed under Docket No. FAA-2006-26408, proposes to revise the ratings system, expand the quality assurance requirements by requiring a quality program, and other editorial changes to help clarify some of the ambiguous language published in the last rule change.

Comments on this proposal are due to the FAA before March 1, 2007. The easiest way to submit comments is electronically through the Department of Transportation's docket management system at http://dms.gov.

In 1999, the FAA proposed the last round of repair station regulations, which became final on Aug. 6, 2001. This was the change requiring the rewrite of the repair station manuals and the quality manuals, and which established the requirement for a training program. The FAA withdrew its 1999 proposal for a quality system and its proposed revision to the ratings system in the 2001 final rule.

The rule went into effect April 6, 2003, and beyond the promises of the FAA that this proposal was cost effective, it ended up costing repair stations a fist full of dollars to implement.

Now, three years later, the FAA has announced its sequel, which reintroduced the amended ratings system and an expanded quality program requirement with the promise it will only cost a few dollars more.

In the "Federal Register," the FAA certifies it cannot quantify the benefits of this rulemaking, but do not find the costs associated with this proposal to be a significant burden. Yes, you read that right: no quantifiable benefit and higher administrative cost to you — and the Agency (your government) thinks this is OK.

Like any proposed rule change, there are issues that would benefit some and be detrimental to others. Let's evaluate the good, the bad and the ugly parts of this proposal.

The Good

The FAA is proposing a rewrite of the ratings system, which is a cleansheet approach of making the system more flexible for the fast-paced technology changes being experienced by the aviation industry in general and avionics industry specifically. While the concept of a new ratings system is good, the implementation of it qualifies as pure ugly.

Other aspects of the ratings change make sense also.

The traditional "airframe" rating would migrate to an "aircraft" rating. This actually makes quite a bit of sense: FAR Part 1 defines an "airframe" to mean "the fuselage, booms, nacelles, cowlings, fairings, airfoil surfaces (including rotors but excluding propellers and rotating airfoils of engines), and landing gear of an aircraft and its accessories and controls."

The expanded definition of "aircraft" means a repair station would not be required to obtain a separate component rating for every accessory but would be able to maintain the entire aircraft and its components within the limitation of its ratings and operation specifications. An aircraft repair station could not perform maintenance on any article covered by a powerplant, propeller or avionics rating unless the repair station also holds the applicable rating.

Section 145.103 would allow a repair station to use additional fixed locations within close proximity to the certificated repair station for maintenance, preventative maintenance and alterations. This would clarify that a business could operate from multiple facilities at the same airport or at different airports in the immediate geographic area.

In the codification of the satellite repair station in 2001, the FAA placed a limitation on the satellite, requiring the "parent" repair station to have all of the ratings held by the satellites. The FAA is proposing to delete this requirement in the proposed rule.

There are other minor proposed changes that fall into the overall "good" category, but for the sake of space, we'll move on to the bad and the ugly. The entire proposal is available for review on the AEA's members-only website, Resource One, at www.aea.net/R1.

The Bad

While the motivation of this proposal is well intended, the application

of it would be trying at best.

There is no discussion regarding an implementation timeline. Since 2003, the repair station has had to rewrite its repair station manuals and quality manuals. Many still have not been returned from their Certificate Holding District Office. Add to that the 2006 start of the repair station training program. Now, the FAA is proposing a rule change requiring the repair station's manual, quality manual and training program be revised.

Each repair station would be required to generate a capability list for each article on which it works. There would be no "class ratings" as we currently know them. This would affect every repair station.

The FAA has proposed creating a new rating: a "specialized service" rating. It proposes to issue a specialized service rating to a repair station performing "a maintenance function that is not described in the manufacturer's data."

Think about this for a moment: How many maintenance functions do you perform in a week that are not contained in the manufacturer's maintenance manual — functions such as alterations or major repairs? Taken literally, this requirement could mean every repair station would need a specialized service rating.

The proposal would allow an avionics-rated repair station to "remove, replace, install and test avionics equipment on an aircraft;" however, the avionics-rated repair station could not "maintain" avionics equipment on the aircraft. Yes, that's correct: no troubleshooting or repairing avionics equipment while it's installed in the aircraft, or upgrading databases (which is defined as preventive maintenance) while the system is installed in the aircraft.

In the 2001 rulemaking, the AEA and other industry groups fought hard

for the abilities for modern businesses to be mobile. The legacy business approach of brick and mortar doesn't fit all the business models in aviation today. Unfortunately, by adding a single word, the FAA has proposed to deter businesses from having mobile operations. The FAA proposes every repair station have "permanent housing" for all of its facilities, equipment, materials and personnel.

Simple word changes can have a significant affect on the rules. In Section 145.151, the FAA currently requires the repair station to have a "sufficient number of employees with the training, knowledge or experience in the performance of maintenance, etc." But the FAA has proposed to change one word: the "or" to an "and." Rather than verifying a person is qualified with training, knowledge or experience, under the proposal each employee would be required to have training, knowledge and experience.

The proposal creates the position of chief inspector for the repair station. While the idea of designating someone as the chief inspector may have merit, the FAA once again compromises the advantages by its qualifications.

Section 145.155 proposes a chief inspector must have at least three years experience using the various types of inspection equipment and techniques appropriate for the article being inspected. I read this as inclusive not optional — that is, the chief inspector must be qualified in "all" inspection equipment and techniques, and must have three years experience using them.

Section 145.203 proposes limiting a repair station's business by prohibiting it from performing maintenance outside of its "domicile country" unless the repair station obtains permission from the host country and the FAA gives explicit permission. In other words, a repair station cannot come to the aid of an AOG customer outside of the

United States unless the Civil Aviation Authority of the country where the aircraft is located agrees and the FAA grants permission. That shouldn't take more than a few months to obtain!

And, finally, the quality system.

The FAA is proposing to expand the current quality system by adding a system for "internal evaluations." The requirement would include an annual evaluation (audit), a process for recording evaluation findings, correcting the finding and recording the corrective action, then follow-up evaluations.

To make matters worse, the repair station must have procedures to "qualify, train and authorize" a person to perform internal evaluations. This may make sense for a large, corporate, multi-tiered maintenance organization, but how does a simple, small business comply with this proposal and, even more significant, what would be the benefit?

The owner is already the chief decision-maker, auditor and document writer: What benefit would this proposal have to justify the additional paperwork.

As if the bad weren't bad enough, this proposal could have some purely ugly outcomes if not dramatically amended.

The Uglv

Going back to the ratings system. Every aircraft-rated repair station must be type-rated. That's right, the FAA is proposing eliminating the current four classes and replacing them with a single aircraft rating. But it states aircraft-rated repair stations must have the aircraft types placed on their operations specification. That, to me, is type-rating a repair station.

For the record, there are more than 500 different aircraft types. And the capability lists would be limited to the specifically authorized aircraft types.

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The repair station would have to petition to the FSDO to amend its operations specification to add the "aircraft type" before the repair station could perform any maintenance.

In addition, the FAA is proposing replacing the three radio ratings and the four instrument ratings with a single avionics rating controlled by "categories." Don't ask me what a category is because the FAA never defined it.

The current Section 145.103 requires a repair station with an airframe rating to "provide suitable permanent housing to enclose the largest type and model of aircraft listed on its operations specifications." This language is consistent with the proposed rule. Generally, a limited airframe-rated facility was not held to this same housing standard.

Under this proposal, the FAA is proposing eliminating the "limited" ratings and changing it to a ratings limitation. Therefore, every repair station currently holding a limited airframe rating would apply for an aircraft rating with limitations and apply for type ratings for every type of aircraft on which it performs maintenance.

This also means every repair station currently holding a limited airframe would become an aircraft-rated repair station with limitations and would be required to have "permanent housing to enclose the largest type and model of aircraft listed on its operations specifications."

In conclusion, this is a very significant proposal that deserves your time to reviewing it and to understand the implications to your business. There are certainly good parts to this proposal, some bad parts needing addressed, and ugly parts requiring significant restructuring.

A section-by-section comparison of the proposed language to the current language is available on the AEA's Resource One www.aea.net/R1.

Remember, comments are due no later than March 1, 2007. \Box

Regulatory Update

United States

Repair Stations: FAA Proposing to Amend Regulations

On Dec. 1, 2006, the Federal Aviation Administration published a notice of proposed rulemaking proposing to amend the regulations for repair stations. The proposal includes a revision to the system of ratings and establishing an enhanced quality program. In addition, there are a number of other changes critical to repair station operations.

For an overview of the proposal, read this month's "View from Washington." A section-by-section analysis also is available for review on the AEA's members-only website, Resource One, at www.aea.net/R1.

Comments on this proposal identified by docket number FAA-2006-26408 can be sent via the DOT docket website at http://dms.dot.gov.

The FAA must receive comments no later than March 1, 2007.

Implementing the Maintenance Provisions of Bilateral Agreements

On Nov. 30, 2006, the FAA announced the effective date of the final rule, published July 14, 2005, that amended the regulations governing maintenance, preventive maintenance and alterations performed on United States aeronautical products by certain Canadian persons. That revision removes specific regulatory references and other requirements, and requires maintenance, preventive maintenance and alterations be performed in accordance with a bilateral aviation safety agreement (BASA) between the United States and Canada and associated maintenance implementation procedures (MIP).

When the rule was published, the FAA announced the amendments would become effective concurrent with the date the MIP entered into force. The MIP was signed and entered into force Aug. 31, 2006; accordingly, the amendments became effective on that date. The effective date of Section 43.17 is Aug. 31, 2006.

The final rule was published July 14, 2005, in the "Federal Register" on page 40,872.

The following is the revised Section 43.17 as published and effective Aug. 31, 2006.

Section 43.17, Maintenance, preventive maintenance and alterations performed on U.S. aeronautical products by certain Canadian persons:

- (a) Definitions. For purposes of this section:
- Aeronautical product means any civil aircraft or airframe, aircraft engine, propeller, appliance, component or part to be installed thereon.
- Canadian aeronautical product means any aeronautical product under airworthiness regulation by Transport Canada Civil Aviation.
- *U.S. aeronautical* product means any aeronautical product under airworthiness regulation by the FAA.
- (b) Applicability. This section does not apply to any U.S. aeronautical products maintained or altered under any bilateral agreement made between

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Canada and any country other than the United States.

- (c) Authorized persons:
- (1) A person holding a valid Transport Canada Civil Aviation maintenance engineer license and appropriate ratings may, with respect to a U.S.-registered aircraft located in Canada, perform maintenance, preventive maintenance and alterations in accordance with the requirements of paragraph (d) of this section and approve the affected aircraft for return to service in accordance with the requirements of paragraph (e) of this section.
- (2) A Transport Canada Civil Aviation approved maintenance organization (AMO) holding appropriate ratings may, with respect to a U.S.-registered aircraft or other U.S. aeronautical products located in Canada, perform maintenance, preventive maintenance and alterations in accordance with the requirements of paragraph (d) of this section and approve the affected products for return to service in accordance with the requirements of paragraph (e) of this section.
- (d) Performance requirements: A person authorized in paragraph (c) of this section may perform maintenance (including any inspection required by Section 91.409 of this chapter, except an annual inspection), preventive maintenance and alterations, provided:
- (1) the person performing the work is authorized by Transport Canada Civil Aviation to perform the same type of work with respect to Canadian aeronautical products;
- (2) the maintenance, preventive maintenance or alteration is performed in accordance with a bilateral aviation safety agreement between the United States and Canada and associated maintenance implementation procedures that provide a level of safety equivalent to that provided by the provisions of this chapter;

- (3) the maintenance, preventive maintenance or alteration is performed such that the affected product complies with the applicable requirements of Part 36 of this chapter; and
- (4) the maintenance, preventive maintenance or alteration is recorded in accordance with a bilateral aviation safety agreement between the United States and Canada and associated maintenance implementation procedures that provide a level of safety equivalent to that provided by the provisions of this chapter.
 - (e) Approval requirements:
- (1) To return an affected product to service, a person authorized in paragraph (c) of this section must approve (certify) maintenance, preventive maintenance and alterations performed under this section, except that an aircraft maintenance engineer may not approve a major repair or major alteration.
- (2) An AMO whose system of quality control for the maintenance, preventive maintenance, alteration and inspection of aeronautical products has been approved by Transport Canada Civil Aviation, or an authorized employee performing work for such an AMO, may approve (certify) a major repair or major alteration performed under this section if the work was performed in accordance with technical data approved by the FAA.
- (f) No person may operate in air commerce an aircraft, airframe, aircraft engine, propeller or appliance on which maintenance, preventive maintenance or alteration has been performed under this section unless it has been approved for return to service by a person authorized in this section.

Canada

SMS Small Operator Pilot Project Report Issued

In response to industry observations

regarding the implementation of safety management systems (SMS) in small operations, Transport Canada Civil Aviation (TCCA) established the SMS Small Operator Pilot Project in May 2005. The goal of this project was to evaluate the guidance material, tools and implementation processes developed by TCCA.

A cross-section of small air operators, flight-training units and approved maintenance organizations (AMO) participated in the project, based on factors such as number of employees, aircraft types and/or ratings, scope and types of operation and operating environment.

Results from the project indicate SMS can be successfully implemented and become a positive addition to small operations. However, the industry/TCCA project team identified the need to continue to develop and/or update infrastructure in the following areas:

- Implementation procedures
- Guidance material
- Data management
- Training

A key recommendation of interest to small businesses is that the development of the SMS complexity continuum tool must be completed. This tool will be of benefit to both industry and TCCA. For businesses, it will provide a good foundation in the developmental phase and further their understanding of what is appropriate for their particular companies, based on size and complexity. For TCCA, understanding the complexity continuum better, through training, will allow SMS assessors to apply assessment and validation tools in the appropriate context.

The complexity continuum will provide guidance for CAR 107.04, which states, "A safety management system shall correspond to the size, nature and complexity of the operations, activities, hazards and risks associated with the operations..."

The AEA fought hard at the Canadian Aviation Regulation Advisory Council's

SMS meetings to scale implementation of SMS in this manner, and the project recommendation should result in appropriate guidance on this subject.

The full text of the report may be found online at www.tc.gc.ca/CivilAviation/SMS/SmallOperator/Final/Menu.htm.

TCCA Safety Management Systems Implementation Schedule

TCCA recently updated its SMS implementation schedule. Implementation of AMOs performing maintenance on aircraft operated under CAR 702, 703 and 704 now is forecast for December 2007. A schedule for SMS implementation of AMOs that do not hold aircraft ratings has not been set.

The schedule can be viewed at www. tc.gc.ca/CivilAviation/SMS/implementation.htm.

TCCA Issues Guidance for Canada/United States BASA

TCCA has issued an advisory circular, AC 571-002, to provide guidance relating to the bilateral aviation safety agreement (BASA) and accompanying maintenance implementation procedures (MIP) between Canada and the United States. This AC provides operators, aircraft maintenance organizations (AMO) and aircraft maintenance engineers (AME) with recommended procedures for maintenance, preventative maintenance and alterations (excluding annual inspections) on United States aeronautical products located in Canada when performed by Canadian AMOs or AMEs, and provides recommended procedures for maintenance, preventative maintenance and alterations (excluding annual inspections) on Canadian aeronautical products located in the United States when performed by FAA-certificated repair stations or FAA-certificated airmen.

AC 571-002 can be viewed at www. tc.gc.ca/CivilAviation/maintenance/AARPC/ac/571-002.htm.

Europe

EASA

- Switzerland officially became a member of the European Aviation Safety Agency on Dec. 1, 2006. It is the fourth non-EU country to adopt European Union aviation safety legislation, after Norway, Iceland and Liechtenstein. The four non-EU countries are represented in the agency's management board (without voting rights), and nationals of these countries are eligible to work for the agency.
- Following the Treaty of Accession of Bulgaria and Romania, signed by the EU member states and Bulgaria and Romania on April 25, 2005, in Luxembourg, Bulgaria and Romania are represented on EASA management board as observers. On Jan. 1, 2007, both countries officially became members of EASA.
- EASA amended its airworthiness directives website with an AD link to national authorities. This might be of interest to maintenance organizations for ADs listed prior to EASA coming into play.

JAA

- As the Joint Aviation Authorities continues to grow, it recently welcomed the Republic of Azerbaijan and the Republic of Georgia as new candidate member states of the JAA. During the meeting of the JAA board on Dec. 14, 2006, Serbia was approved as a full member of JAA. The JAA now has 42 members, of which 34 are full members and eight are candidate members.
- JAR OPS 1 Amendment 12 and JAR OPS 3 Amendment 4 was issued without major implications on equipment or instrument (Subpart K and L) requirements.
- The new training facilities hosting the European Aviation Safety Training Organisation (EASTO) and the JAA training office were officially inaugu-

rated Dec. 13, 2006, in Hoofddorp, the Netherlands.

EASTO is an international training organization formed by the following members: JAA, the International Institute of Air and Space Law of the University of Leiden, the Netherlands Aerospace Laboratory, the Netherlands Aviation College, and ADSE Consulting and Engineering. EASTO plans to extend its membership to additional partners in the near future.

The organization aims to become one of Europe's leading aviation safety training centres by offering a full range of courses, including examinations on aviation safety regulations and procedures established primarily in the framework of EASA. As a nonprofit training centre, EASTO will promote and contribute to the development of training material and courses designed to support the dissemination of knowledge and awareness of European and international aviation safety regulations and procedures. \square