



INTERNATIONAL NEWS AND REGULATORY UPDATES

F R O M R I C P E R I
VICE PRESIDENT OF GOVERNMENT & INDUSTRY AFFAIRS FOR AEA

The Aircraft Electronics Association's international membership continues to grow. Currently, the AEA represents avionics businesses in more than 35 countries throughout the world. To better serve the needs of the AEA's international membership, the "International News and Regulatory Updates" section of Avionics News offers a greater focus on international regulatory activity, international industry news, and an international "Frequently Asked Questions" column to help promote standardization. If you have comments about this section, send e-mails to avionicsnews@aea.net.

SMS: The Way Forward

The regulatory battle against the Canadian proposal for a Safety Management Systems program is quickly coming to an end. We have fought the good fight, and it's not over quite yet, but even if Transport Canada were not to go forward with rulemaking, the International Civil Aviation Organization (ICAO) mandate would force anyone interested in international commerce to adopt a Safety Management Systems program. The question we have to deal with in the final days of this regulatory battle is not "if" SMS but rather "how."

Initial reports from AEA members who have adopted regulatory SMS (those who were captured in Phase I) have not been encouraging. The labor and administrative burden of these programs has been excessive. The AEA would like to thank its members for supporting its recent survey regarding SMS costs. From this survey, John Carr, AEA Canada regulatory consultant, created a detailed report, which has been shared with both Transport Canada and the FAA to provide information for estimating

the cost of implementing the proposal.

In late April, the AEA met with Transport Canada for a two-day meeting regarding SMS. We shared many of our concerns, challenges and the reported lack of standardization in reviews and audits resulting in unacceptable costs. Transport Canada acknowledged our concerns and clarified it was not its intent to create a thoroughly "new" program but rather

ciency. Of the 60-plus AEA members in Canada, the vast majority of these shops are well-run businesses with, in some cases, more than four decades of successful operations. Any additional cost for our members to document they are exercising industry best practices is not acceptable.

Transport Canada has committed to updating its guidance material to show better integration between SMS

The AEA will provide safety management systems and quality management systems training during the AEA Canada Meeting from Sept. 1-3, 2010, in Calgary, Alberta, Canada.

to capture the best business practices many of the AEA member shops already have in place and institutionalize them in the regulations.

The AEA argued the elements of SMS are fundamental to industry best practices and most AEA member companies already exercise these approaches to quality, safety and effi-

and the current best business practices AEA members already exercise. According to Transport Canada, the rule is performance-based, and the prescriptive approach many have interpreted the regulations and guidance to lead to has been a misinterpretation with the resulting costs being excessive and, in most cases, unnecessary.

To help resolve some of these issues, Transport Canada has committed to training its employees prior to the implementation of SMS to the AMO community.

After two days of meetings, which were emotional at times, we came to some general agreements. First, aviation maintenance is a prescriptive operation where few decisions can be made outside of the regulatory framework. Therefore, many of the “decision-making processes” used by SMS in an air-operations environment are not applicable to maintenance. The analysis tools for failure of regulatory conformance, however, are completely applicable: Why did the failure happen? Did the AMO process fail? What is being done to prevent it from happening in the future?

If we take out all of the non-applicable pieces of SMS, we end up with a workable model that relies on a solid quality management system for about 80 percent of the solution; SMS provides a risk management decision tool for about 15 percent of those decisions, which already are required by regulations; and the remaining 5 percent are new written policies, which already represent industry best practices exercised by many AEA members.

The Path Forward

The AEA will continue to fight the SMS regulatory battle, including legislative efforts when necessary, to ensure AEA members are not burdened by unreasonable implementation of a Safety Management System program.

Starting next month in *Avionics*

News, we will begin publishing a step-by-step process for evaluating an AMO’s current quality management system to measure the gaps between an AMO’s current quality assurance program and where the QMS will lie under SMS.

Additionally, we will introduce some of the best practices that can be incorporated (or partially incorporated) today with little or no cost, such as a policy encouraging employee reporting of errors, failures and incidents —something in which the AEA encourages all companies to participate.

The AEA also will provide QMS and SMS training during the AEA Canada Meeting from Sept. 1-3, in Calgary, Alberta, Canada, and again during the 2011 meeting. Additional training will be offered during the AEA International Convention & Trade Show from March 22-25, 2011, in Reno, Nev.

These will not be repetitive training courses, but rather progressive training; therefore, you should plan to attend each of the different training sessions to minimize the cost of implementing SMS.

Finally, the AEA will produce an amendment to the maintenance procedures manual, which will incorporate the elements of a SMS program, as well as a template for the necessary forms, checklists and processes. The effective use of these tools will require the training provided during the AEA Canada Meetings.

As we continue forward, the AEA is your solution to SMS.

UNITED STATES **News & Regulatory Updates**

FAA Proposes New Lightning Protection Regulations

In April, the Federal Aviation Administration proposed amending the lightning protection airworthiness standards by establishing new lightning protection regulations for electrical and electronic systems installed on aircraft certificated under Parts 23, 27 and 29, as well as revising lightning protection regulations for electrical and electronic systems installed on airplanes certificated under Part 25.

The proposed rulemaking would establish two levels of lightning protection for aircraft systems based on consequences of system function failure: catastrophic consequences, which would prevent continued safe flight and landing; and hazardous or major consequences, which would reduce the capability of the aircraft or the ability of the flight crew to respond to an adverse operating condition.

The proposed rulemaking also would establish lightning protection for aircraft systems according to the aircraft’s potential for lightning exposure. Compliance with the new requirements would be based on demonstration of effective lightning protection for electrical and electronic systems. The proposed airworthiness standards would establish consistent lightning protection requirements for electrical and electronic systems.

Comments regarding this proposal are due prior to July 1, 2010.

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FAA Extends Compliance Dates for CVRs, DFDRs

In April, the FAA published an extension of the compliance date for cockpit voice recorder and digital flight data recorder regulations.

In March 2008, the FAA published a final rule, "Revisions to Cockpit Voice Recorder and Digital Flight Data Recorder Regulations." The rule required certain upgrades of cockpit voice recorder and digital flight data recorder equipment on certain aircraft beginning April 7, 2010. This compliance date is being changed for certain requirements on certain aircraft.

The following are the flight recorder equipment compliance times:

- For the 10-minute, backup power source for cockpit voice recorders, the compliance date for newly manufactured aircraft operating under Part 91 is April 6, 2012.

- For increased digital flight data recorder sampling rates, the compliance date for newly manufactured aircraft operating under Part 91 is April 6, 2012.

- For increased digital flight data recorder sampling rates, the compliance date for newly manufactured aircraft operating under Part 121, 125 or 135 is Dec. 6, 2010.

- For recordation of data-link communications, the compliance date after which newly installed data-link systems must include recording capability for aircraft operating under Part 91 is April 6, 2012.

- For recordation of data-link communications, the compliance date after which newly installed data-link systems must include recording capability for aircraft operating under Part 121, 125 or 135 is Dec. 6, 2010.

These amendments were effective April 5, 2010.

FAA Provides Exception for U.S. Military Personnel Overseas

In April, the FAA provided relief for U.S. military and civilian personnel who are assigned outside the United States in support of U.S. armed forces operations.

This action confirms the direct final rule issued March 4, 2010, which becomes effective June 20, 2010. The rule changes Special Federal Aviation Regulation 100-1, with an expiration date of June 20, 2010, to Special Federal Aviation Regulation 100-2 with an expiration date of "until further notice."

The FAA is replacing SFAR 100-1 with SFAR 100-2, which continues to allow Flight Standards District Offices to accept expired flight instructor certificates and inspection authorizations for renewals from U.S. military and civilian personnel who are assigned outside the United States in support of U.S. armed forces operations.

SFAR 100-2 also continues to allow FSDOs to accept expired airmen written test reports for certain practical tests from U.S. personnel who are assigned outside the United States in support of U.S. armed forces operations.

This action is necessary to avoid penalizing U.S. personnel who are unable to meet the regulatory time limits of their flight instructor certificates, inspection authorizations or airmen written test reports because of their service outside the United States. The intent of this action is to give U.S. personnel who are supporting armed forces operations extra time to meet certain eligibility requirements in the current rules.

FREQUENTLY ASKED QUESTIONS

United States

Maintenance Records

The following information is from the Federal Aviation Regulations.

QUESTION:

My inspector recently suggested I include in the maintenance records the names of technicians who were performing maintenance but not returning the articles to service. Is this a requirement?

ANSWER:

Yes. Although it often is overlooked, it is a requirement. The regulations can be a bit confusing because it is required in Part 43, but it is not a requirement in Part 91.

Apart from a few exemptions for specific inspections, 14 CFR Section 43.9 requires, "Each person who maintains, performs preventive maintenance, rebuilds or alters an aircraft, airframe, aircraft engine, propeller, appliance or component part shall make an entry in the maintenance record of that equipment," and the entry in the maintenance record must contain a description of the work performed, the date the work was completed, a certificate number, kind of certificate held by the person approving the work, and a signature. This also is consistent with 14 CFR 91.417, "Maintenance Records."

However, if the work was performed by someone other than the person approving the work, 14 CFR 43.9(a)(3) also requires the name of the person who actually performed the work to be placed in the maintenance record.

EUROPE News & Regulatory Updates

EASA Working in Various Areas, Responding to Industry Inquiries

European Aviation Safety Agency experts recently spent time responding to inquiries from the industry and other stakeholders and gave a presentation providing information about the different areas EASA currently is working on — namely in the areas of:

- Part M for the management and maintenance of ELA aircraft and pilot/owner maintenance
- Aircraft mechanics licensing (B3 and L)
- Pilots licensing
- Operation
- Certification requirements for light aircraft

Following the recent changes to the Authorized Release Certificate, Form 1, in a recent amendment to Part M, EASA has issued a similar amendment to the Form 1 in Part 21 AMC material in Executive Decision 2010-01. The main topic in this executive decision provides the new, updated and revised completion instructions for the new EASA Form 1, previously issued with the amendment to Part M. A few corrections to the AMCs of Part 21 also were addressed.

EASA issued NPA 2010-02 in March. The NPA was developed based on input from the Changed Product Rule International Implementation Team (CPR-IIT) established by a joint decision of the U.S. Federal Aviation Administration, Transport Canada Civil Aviation and EASA. The main objective of the revised guidance material, GM21A.101, is the determination of the conditions and criteria for the classification of a change as “significant” or “not significant,” which are relevant for designation of the applicable airworthiness

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certification specifications for the type-certification basis of a changed product.

In January, the FAA published its equivalent draft, AC 21.101-1A, for comments; the comment period closed Feb. 26. Comments on the FAA draft AC and comments on this EASA NPA are planned to be disposed jointly by the CPR-IIT to achieve a guidance material harmonized to the greatest extent possible.

Changes of the new proposed GM include the format, with different numbering and arrangement in new chapters, and new wording to make the guidance more precise and clear without changing the substance of the guidance.

A few changes should be noted:

It is now clarified, if an applicant vol-

untarily decides to use the latest certification specification for the proposed change, no further justification or classification must be done because the intent of the rule is met.

The guidance for the classification, whether the proposed change is significant, has been expanded to provide additional criteria for how to evaluate each related and unrelated change.

It provides explanation and examples of “would not materially contribute to safety.”

Guidance for how to use the “impracticality” rationale is being improved.

Furthermore, changes to the FAA Draft AC21.101-1A also are identified. These changes were necessary to cover the slightly different European Union legal framework.

Comments regarding this NPA should be submitted on or before June 17,

2010, using the comment response tool.

NPA 2010-03 provides new AMC material for ACAS II/TCAS II installations based on a former JAA temporary guidance leaflet, as well as a draft decision for an AMC related to the implementing rules for airspace user requirements.

AMC20-15, “Airworthiness Certification Considerations for the Airborne Collision Avoidance System,” provides detailed information and guidance regarding the certification on such an installation. It also refers to the new standard of software referenced as Change 7.1, which contains the new collision avoidance logic. Per the current draft, the implementation of the new software that might need an upgrade of the ACAS hardware is March 1, 2014.

For more information, visit the EASA website at www.easa.eu. □

FREQUENTLY ASKED QUESTIONS

Canada

Contract Maintenance in Canada

The following information is taken from the Canadian Aviation Regulations.

QUESTION:

What is the regulatory basis in Canada for contract maintenance, and what oversight is required?

ANSWER:

According to CAR 573.11, no approved maintenance organization (AMO) certificate holder shall permit an external agent to perform maintenance on its behalf unless:

a) the external agent holds an AMO certificate with a rating of a category that is appropriate to the type of work to be performed or the aeronautical product to be maintained;

b) where the work is to be performed outside Canada, the external agent has been authorized to do the type of work to be performed or to perform maintenance on the type of aeronautical product to be maintained under the laws of a state that is party to an agreement with Canada and the agreement provides for the recognition of maintenance functions; or

c) in all other cases, the performance of the maintenance by the person or organization has been approved by the TCCA as being in conformity with these regulations.

In these cases, the AMO certificate holder requesting an external agent to perform work shall be responsible for specifying the tasks to be performed by the agent and ensuring completion of the work.

An exception to the previous information is, an AMO certificate holder also can permit work to be performed by an external agent other than an agent described above where the work is performed in accordance with an arrangement that provides for it, under the direct supervision of the person responsible for

maintenance and certified by persons authorized to do so in accordance with the approved procedures set out in the AMO’s maintenance policy manual. In this case, the procedures for such an arrangement shall be set out in the MPM or, if no such procedures are set out in the MPM, shall be approved by TCCA as ensuring conformity with the requirements.

In this case, the AMO certificate holder requesting an external agent to perform work shall be responsible for specifying the tasks to be performed by the agent and ensuring completion of the work, and be responsible for ensuring the conformity of that work with the requirements of CAR 571.

Note: The AEA offers “Frequently Asked Questions” to foster greater understanding of the aviation regulations and the rules governing the industry. The AEA strives to ensure FAQs are as accurate as possible at the time of publication; however, rules change. Therefore information received from an AEA FAQ should be verified before being relied upon. This information is not meant to serve as legal advice. If you have particular legal questions, they should be directed to an attorney. The AEA disclaims any warranty for the accuracy of the information provided.