



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 emails to avionicsnews@aea.net.

UNITED STATES News & Regulatory Updates

FAA Withdraws Advance Notice of Proposed Rulemaking on SMS

Effective March 17, 2011, the Federal Aviation Administration withdrew its previously published advance notice of proposed rulemaking, which solicited public comment on a potential rulemaking requiring all certificate holders to develop a safety management system.

The Airline Safety and Federal Aviation Extension Act of 2010 (Pub. L. 111-216) directed the FAA to issue an NPRM within 90 days of enactment of the Act, and a final rule by July 30, 2012. The Act requires the FAA to develop and implement an SMS for all Part 121 air carriers.

As a result of the legislative mandate to issue a final rule implementing SMS for Part 121 air carriers by July 2012, the FAA has decided not to immediately address SMS for other product and service providers. The FAA is withdrawing Notice No. 09-06 to redirect its resources to

complete the SMS for Part 121 final rule by the 24-month deadline of July 30, 2012.

Although the current NPRM is limited to Part 121 operators, the general requirements in its proposed Part 5 were designed so that it could be adapted and applied to other FAA-regulated entities in the future, such as Part 135 operators, Part 145 repair stations and Part 21 aircraft design and manufacturing organizations. The FAA is fully committed to initiate additional rulemaking in the future to consider SMS for other product and service providers.

FREQUENTLY ASKED QUESTIONS

United States

Maintenance Manuals

The following information is from the FAA Federal Aviation Regulations Parts 43 and 145.

QUESTION:

Is a radio-rated repair station required to have maintenance manuals for "every airframe" it holds a limited rating?

ANSWER:

No, repair stations do not have to "own" maintenance manuals for every airframe. However, repair stations are required to have access to the appropriate maintenance data when the work is being performed. In addition, a repair station must demonstrate the ability to acquire the data when necessary and assure that the data utilized is current when being used.

14 CFR § 43.13 requires that each person performing maintenance, alteration or preventive maintenance on an aircraft, engine, propeller or appliance "shall use the methods, techniques and practices prescribed" in the:

- (a) Current manufacturer's maintenance manual, or

- (b) Instructions for continued airworthiness prepared by its manufacturer, or
- (c) Other methods, techniques and practices acceptable to the Administrator.

In addition, the performance rules require that the repair station “use the tools, equipment and test apparatus necessary to assure completion of the work in accordance with accepted industry practices. If special equipment or test apparatus is recommended by the manufacturer involved, you must use that equipment or apparatus or its equivalent acceptable to the Administrator.” This is a difficult task to perform, if you do not have the manuals to reference.

Part 145 requires a certificated repair station to “maintain the documents and data required for the performance of maintenance, preventive maintenance or alterations under its repair station certificate and operations specifications in accordance with Part 43.” It also lists the specific data that must be “current and accessible when the relevant work is being performed.”

The data list includes:

1. Airworthiness directives.
2. Instructions for continued airworthiness.
3. Maintenance manuals.
4. Overhaul manuals.
5. Standard practice manuals.
6. Service bulletins.
7. Other applicable data acceptable to or approved by the FAA.

It is the repair station’s responsibility to “defend” that it is meeting the regulations and be able to explain its methodology when challenged by the FAA inspector. Many repair

stations “contract” with other airframe maintenance shops for access to airframe manuals.

While avionics are normally installed via an STC with reference to AC 43.13, the task cannot be completed without at least some level of airframe manual review for editing the aircraft electrical load analysis, or the required review and edit to the airframe instruction for continued airworthiness. For the repair stations that only perform altimetry system checks under 14 CFR § 91.411, or the transponder checks under 14 CFR § 91.413, the appropriate inspection data is contained in Part 43 and FAA advisory circulars. However, if the repair station is required to “repair” either system, the appropriate maintenance manuals are required.

So, an answer is not clear. Yes, a repair station is required to have all necessary data to perform the tasks which they are contracted to perform. It is the repair station’s responsibility to assure the data is complete. It is often difficult without at least some review of each airframe manual.

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.

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CANADA News & Regulatory Updates

Transport Canada and SAIT present Aircraft Certification Testing Course

Transport Canada Civil Aviation and the Southern Alberta Institute of Technology are collaborating to present the introduction to aircraft certification testing course, scheduled for June 6-9, 2011, at the SAIT Art Smith Aero Centre in Calgary, Alberta.

This short course has been held annually since 2007. It is designed to introduce engineers and technologists to the testing phase of aircraft certification. It will cover Transport Canada, FAA and EASA testing requirements for the approval of new

components for aircraft, along with STC approval of modifications.

The course will feature detail test procedures in a number of areas and will feature a walk-through evaluation of the interior of an actual Boeing 737 aircraft. The reporting requirements for flight and ground test certification will also be addressed.

Course modules are as follows:

- The Transport Canada, FAA and EASA requirements and procedures for aircraft certification testing.
- Component level testing RTCA DO-160.
- Electromagnetic interference and radio frequency interference testing.
- Flammability testing.

- Structures testing, including composites.
- Engineering reviews for aircraft interiors (FAA AC 25-17).
- Flight test procedures and guidelines.

Course instructors are from TCCA and are recognized industry experts in their specialty. The course is recommended for staff of AEA member AMOs, repair stations and manufacturers in Canada and the U.S. who are involved in equipment and installation/modification certification activities. Registration information (Course AERO-115) may be viewed at: www.sait.ca/pages/cometosait/continuingeducation/transportation/aviationgeneral.shtml.

EUROPE News & Regulatory Updates

EASA

The European Union and the U.S. have finally formed a cooperation agreement on civil aviation safety (US-EU BASA). As the council of the EU reported on March 15, 2011, the parties have agreed on a basis to enable the reciprocal acceptance of findings of compliance and approvals, promoting a high degree of safety in air transport and ensuring regulatory cooperation and harmonization between the U.S. and EU. The AEA's response to the detailed content of this wide reaching agreement affecting the aviation industry can be found at www.aea.net.

In addition, for the past 28 years, the Europe-U.S. International Safety Conference has been held in various places throughout the world. This year, Austro Control, the Austrian Civil Aviation Authority, plays host in Vienna, Austria, June 14-16, 2011. The conference will provide a major forum for aviation professionals from around the world to discuss current issues and new initiatives in the area of aviation safety.

The conference will be co-chaired by the Federal Aviation Administration and EASA, which put together an agenda addressing a current concern of the aviation world: enhancing global aviation safety and future challenges.

Three series of workshops and a range of information sessions are designed as the platform for a construc-

tive dialogue that will give the appropriate impetus in designing solutions.

More information and the registration form can be found on both the EASA and FAA website. A number of topics should be highlighted, and the AEA will be in attendance at this meeting.

Finally, another interesting meeting will be the Part 21 Design Organization Approval implementation workshop. The authority staff, as well as industry representatives involved in DO tasks, are invited to participate. This meeting is scheduled for Nov. 29-30, 2011, in Cologne, and will provide a good forum of discussions with enough time allowed for questions and answers from the stakeholders. Check the EASA website for registration details.

FREQUENTLY ASKED QUESTIONS

Europe

Integrated PFDs in Europe

The following information is from the European Aviation Safety Agency website.

QUESTION:

Is there EASA guidance on the installation of European Technical Standard Order highly-integrated primary electronic flight displays on CS-23 Aircraft?

ANSWER:

EASA has published guidance memorandum GA/G/001 titled "Guidelines to Project Managers, Experts and Applicants (DOAs)." This guidance clarifies general aspects and applicability of software related certification memos as part of a STC application where ETSO highly-integrated primary electronic flight displays on CS-23 aircraft are involved. This guidance may be amended based on other new systems offering similar technology and functionality ready for installation in general aviation aircraft.

The guidance policy can be found at: www.easa.europa.eu/certification/faq/general-aviation-FAQ.php#12. □

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Implementation of SMS in Canada

BY JOHN CARR, AEA CANADA REGULATORY CONSULTANT

Part X:

Emergency Preparedness and Response

This is the final article in a 10-part series of articles that focus on the implementation of Safety Management Systems in Canadian AMOs, to meet the upcoming Transport Canada regulatory requirements for SMS. This series, which commenced in the August 2010 issue of *Avionics News*, has explained how a comprehensive quality management system designed to meet CAR 573.09 “Quality Assurance Program” requirements will form a sound basis for the future SMS program. TCCA’s requirement for a gap analysis was also discussed and sample gap analyses for development of a safety management plan and the documentation elements of SMS are being provided.

This article illustrates the sample gap analysis to address the elements of the emergency preparedness component of the Safety Management System. Where these SMS elements may be satisfied by the AMO’s existing quality assurance program this will be noted.

Sample Gap Analysis Form (573 AMOs)

Safety Management System Requirements	Response (Yes/No)	If yes, state where the requirement is addressed. If no, record SMS processes that need further development.	
		Small AMO (1 person) ¹	Moderate/Large AMO (>1) ²

Component 6, Emergency Preparedness – Element 6.1, Emergency Preparedness and Response (CAR 107, CAR/STD 573.16³)

Although no one conducts operations with the intent of having an accident or serious incident, the possibility is always there. When an accident or serious incident does happen, confusion is often a common factor. The emergency response plan is a condensed document, customized to meet an organization’s unique operating requirements and designed to assist organizations in responding to an accident or serious incident. Many of the steps that must take place in the event of an aviation emergency can be planned. This will eliminate most of the confusion that usually occurs when an emergency happens. Emergency response plans and procedures are living documents and require regular exercising and review if they are to be effective when called upon. While, traditionally, emergency response planning has been focused primarily on flight operations, maintenance and any other operations within an organization should be readied for a catastrophic or emergency event.

Does the organization have an emergency preparedness procedure, appropriate to the size, nature and complexity of the organization?	No	Under the management of the accountable executive, the organization will implement a documented emergency response plan. The ERP will be: <ul style="list-style-type: none"> periodically examined as part of the management review; exercised in cooperation with local authorities on an annual basis; updated as required by exercises and reviews; and a required training item for all personnel who may be involved in the event of an emergency. 	In order to reduce human suffering and property damage after an accident or serious incident has occurred, the organization will develop an emergency response plan. The ERP will be: <ul style="list-style-type: none"> periodically examined as part of the management review; communicated and distributed to all organization personnel and local emergency response authorities; exercised in cooperation with local authorities on an annual basis; updated as required by exercises and reviews; and a required training item for all personnel who may be involved in the event of an emergency.
Have the emergency preparedness procedures been documented, implemented and assigned to a responsible manager?	No		
Have the emergency preparedness procedures been periodically reviewed as a part of the management review and after key personnel or organizational change?	No		
Does the organization have a process to distribute the ERP procedures and to communicate the content to all personnel?	No		
Has the organization conducted drills and exercises with all key personnel at intervals defined in the approved control manual?	No		

SUMMARY

The SMS safety oversight elements of emergency preparedness would, therefore, be additions to the AMO's existing quality management system.

AC107-001 Sec. 10.0 contains guidance for implementation of the emergency preparedness elements that may be used by AMOs of all size and complexity as appropriate.

This article completes the review of the required elements of the Safety Management System.

¹ Not all SMS elements will be required for small AMOs. AC107-002 addresses alleviations for AMOs with 1-person and 2-10 persons.

² AC107-001 addresses requirements for large AMOs.

³ CAR 573.16 will address SMS requirements for "573" AMOs. It has not yet been published. Requirements are taken from the NPAs for CAR 573.16 and STD 573.16.