



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.

Down Under and Across the Pond

This month's "International View" highlights Australia and Europe.

Australia: The 2010 GA Revitalization Summit

On Oct. 26-27, 2010, AOPA – Australia sponsored a conference of all general aviation organizations, which included the AEA's participation. Two full days were spent discussing the state of the industry and recommendations.

Safety and efficiency were paramount in discussions at the Summit and as factors in the development of an industry plan. It recognized that any viable plan must enable the Civil Aviation Safety Authority to meet its regulatory oversight responsibilities.

Delegates from the following representative organizations were present: Australian Business Aircraft Association; Australian Licensed Aircraft Engineers Association; Recreational Aviation Australia; Sports Aircraft Association of Australia; Royal Fed-

eration of Australian Aero Clubs; Australian Warbirds Association; Aviation Maintenance Repair and Overhaul Business Association; Aerial Agriculture Association of Australia; and the Aircraft Electronics Association.

Intended to reflect discussions and ideas raised at the Summit, the lead organization published a draft report titled "A Plan to Revitalize General Aviation in Australia." While the report may not necessarily reflect fully the views and opinions of all of the individual organizations, the general aviation's representative organizations collectively seek to support a fresh look at the industry, encourage growth and create employment opportunities.

General aviation's representative organizations recognize that although each has member requirements that need protection, there also is a common objective – the promotion and growth of general aviation as an industry. The AEA is pleased to be participating in this valuable initiative.

Europe

The AEA continues to work on international issues through the European Aviation Safety Agency. As many members realize through their customer base, the avionics industry is clearly an industry without borders.

The work of the B2L licensing standard working group has been completed with only minor editorial work to be completed by EASA staff. And, as a testament to the thoroughness and thoughtfulness of the industry members who proposed this concept and the working group who developed the proposed standard, EASA is considering a Term of Reference to investigate the expansion of the B2L authority to European light aircraft, as well as gliders and balloons. Without judging whether these airplanes need B2 licensed engineers, it is rewarding that a concept recommended and developed by AEA members on the EASA rulemaking work-group would be thought of so highly as being the basis of further standards. Well done.

On another note from proposed rule-

making, the FAA and Transport Canada hosted a North American briefing on EASA's proposed new certification standard for Operational Suitability Data. What is Operational Suitability Data? OSD is type related data that EASA has suggested is necessary for the safe operation of the aircraft in addition to traditional flight manual and instructions for continuing airworthiness data. EASA suggests that this new type of data is necessary in the syllabus development of pilot type rating training, including: reference data for simulators; syllabus of maintenance certifying staff type rating training; type specific data for cabin crew training; and, master minimum equipment list for both complex as well as non-complex aircraft.

One AEA member who attended the meeting responded that: "This is going to greatly impact trade between North America and Europe. North American aircraft sales, leasing and maintenance organizations will need to adjust the time forecasts and cost to do business with European operators. The third party STCs will require considerably more work to prepare time and compliance programs with the associated additional cost to the customers.

In addition to the earlier comment, this is a major issue for not only North American members, but also all AEA members. This proposal will place many avionics upgrades outside the financial reach of many legacy aircraft owners. As you can imagine, if OSD becomes a certification standard for every new aircraft sold in Europe, or any EASA-based country, then any alteration or modification to those aircraft would require evaluation to the effect of the alteration on the OSD data. As a result, major avionics upgrades likely will result in significant additional certification costs.

The Notice of Proposed Amendment is scheduled for April 2011 (except CS-MCS): Adoption is forecast to April 2012. The AEA will continue to follow this developing European standard and assist the rulemaking working group as needed.

EUROPE News & Regulatory Updates

EASA

Opinion 06/2010 addressing the Part 145 single and multiple release was issued in late 2010 and addressed the responsibility of a Part 145 AMO when a number of such organizations are working on one aircraft at the same time and releasing performed work to service. The related amendment to AMC of Part 145 will be issued soon.

A new approach of EASA is to release proposed certification memoranda on the consultation page of EASA.

As EASA explains, certification memoranda are intended to clarify the agency's general course of action on specific certification items. They shall provide guidance on a particular subject, and as non-binding material, may contain complementary information and guidance for compliance demonstration with current standards. Certification memoranda are provided for information purposes only and must not be misconstrued as formally adopted acceptable means of compliance and guidance material. Certification memoranda are not intended to introduce new certification requirements, or to modify existing certification requirements, and do not constitute any legal obligation.

The first three CMs were issued February 2011. The first one provides proposed guidance of the use and applicability of the FAA Aircraft Materials Fire Test Handbook DOT/FAA/AR-00/12. The related CM-CS-001 proposes to recognize the identified FAA document as equivalent to the test methods in CS 25 Appendix F. Similar to other documents, CMs are having a comment period which seems to be two months.

Two other CMs also were issued and address a topic which is primarily important for applicants of STCs containing equipment with software and complex electronic hardware installed. The two CMs, SW-

CEH-001 and SWCEH-002, provide guidance on the software aspects regarding certification and development assurance of airborne electronic hardware. Stakeholders should evaluate and comment on the contents of these new set of documents.

In February 2011, EASA issued the consolidated comment response document to NPA 2010-02, which contains the proposed changes and amendments to the Guidance Material (GM 21A.101) of the so called changed product rule and highlighted, again, the effort of EASA to harmonize with the equivalent FAA Advisory Circular AC 21.101-1A on the same topic.

The main changes are described in detail in the referenced CRD and provide background information on the decision making process within the agency. A large part of the proposed text has been amended, and a number of flowcharts and tables are provided as part of the proposed GM change in order to provide applicants with clearer guidance.

The CRD should be released as the final GM text within the next two months.

Another CRD was issued at almost the same time. This is CRD to NPA 2009-12 in regards to AMC 25-11 (electronic displays) and CS 25.1322 and related AMC 25.1322 in regards to warning caution and advisory lights.

The revised text in CS 25.1322 was closely harmonized with 14 CFR 25.1322, which also was recently reworked. On top of that, a whole new arranged AMC has been issued for CS 25.1322. Again, this was prior harmonized with the equivalent FAA AC 25.1322.

The change to the AMC 25-11 text took care of editorial changes and the fact that the latest installed electronic displays are LCD displays rather than the currently described cathode ray tubes.

The CS25 and AMC text should be issued with the next scheduled amendment of CS 25.

Continued on following page

INTERNATIONAL NEWS

Continued from page 21

AUSTRALIA

News & Regulatory Updates

New Maintenance Regulations

In December 2010, the long awaited suite of civil aviation safety maintenance regulations was formally registered by the governor general.

It covers continuing airworthiness requirements (Part 42), approved maintenance organizations (Part 145), maintenance personnel licensing (Part 66) and maintenance training organizations (Part 147).

The new regulations will be introduced June 27, 2011. The rules covering continuing airworthiness and maintenance organizations only apply to regular public transport aircraft and operations, and are being phased in over two years.

Revised maintenance regulations for other sectors of aviation, such as charter, aerial work and private operations, will be developed at a later date after wide consultation with these sectors.

CASA has promised that all licensed aircraft maintenance engineers will have their licenses re-issued under the new regulations, with current privileges retained.

CASA will begin a comprehensive information and education campaign early in 2011 to make sure the aviation industry is ready for the new regulations well before the commencement date.

The AEA is working with CASA to include a full briefing at the 2011 AEA South Pacific meeting. □

FREQUENTLY ASKED QUESTIONS

Australia

CASA's new requirements for approved maintenance organizations under CASR Part 145 will apply June 27, 2011.

QUESTION:

What will I have to do to convert my CAR 30 to a Part 145 approval?

ANSWER:

In the first phase, Part 145 will apply only to those organizations who are maintaining regular public transport aircraft and/or aeronautical products for aircraft currently operated under Civil Aviation Regulation 206(1)(c).

If you currently hold a CAR 30 certificate of approval for maintenance, and your organization maintains aircraft or aeronautical products for aircraft which are operated under CAR 206(1)(c), then CASR Part 145 will affect you. If you do not support RTP aircraft, there is nothing for you to do at this time.

If you support aircraft operated under CAR 206(1)(c) you will:

- Apply to CASA for approval under Part 145.
- Submit an exposition to CASA for approval demonstrating how the organization will comply with the requirements of Parts 42 and 145.
- Implement a safety management system and provide human factors training to employees.

CASA will be transitioning maintenance organizations conducting maintenance on RPT aircraft, or aeronautical products fitted to such aircraft, to the new Part 145 between June 27, 2011, and June 26, 2013.

The AEA will provide guidance on this at the 2011 AEA South Pacific Regional meeting, Nov. 2-4, 2011, in Auckland, New Zealand.

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.

FREQUENTLY ASKED QUESTIONS

Canada

Transport Canada Documentation Requirements for a Major Modification Performed by a U.S. Repair Station

The following information is from the FAA/Transport Canada Bilateral Air Safety Agreement Maintenance Implementation Procedures, and the Canadian Aviation Regulations.

QUESTION:

What documentation does Transport Canada accept for a major modification performed on a Canadian-registered aircraft by a U.S. repair station?

ANSWER:

As enabled by the BASA, Transport Canada Civil Aviation will accept that U.S. repair stations perform modifications on Canadian-registered aircraft in accordance with data approved by, or acceptable to TCCA, as detailed in the Canadian Aviation Regulations. The BASA maintenance implementation procedures, section 3.0 specify that documentation of an alteration/modification shall be certified as follows:

(c) Maintenance and alterations or modifications must be certified by an approval for return to service or a maintenance release that meets the requirements of 14 CFR Part 43, sections 43.9 and 43.11, or CAR Part 571, Section 571.10, as applicable, for aircraft and the use of the FAA Form 8130-3 or TCCA authorized release certificate for aircraft components, and any other information required by the owner or operator, as appropriate. For the purposes of compliance with this MIP, the requirements of 14 CFR Part 43, sections 43.9, 43.11, and CAR Part 571, Section 571.10, are considered equivalent.

(f) Major repairs or major modifications performed on a Canadian aeronautical product must be recorded on an FAA Form 337 or in accordance with Standard 571, Appendix L, and sent to the TCCA within 48 hours by mail or electronic means.

CAR Standard 571.10 and 571.12 provide standards for reporting of a major modification, and STD 571 Appendix L provides information related to the use of a major repair or major modification report, for reporting a major repair or a major modification to aircraft.

Transport Canada does not publish a major repair or major modification report form. The report may be reproduced by the user as a printed form or in computer generated format. User produced forms must comply with the format provided in CAR STD 571 Appendix L, including block numbers and must have the blocks located as per the layout provided.

In summary, a major alteration/modification report (either a FAA Form 337 or a major modification report per CAR STD 571) must be prepared and submitted to Transport Canada. A major modification may not be released on a log entry, even if the customer accepts responsibility for Transport Canada certification of the modification when he returns to Canada. Under the BASA it is the responsibility of the U.S. repair station to report the modification to Transport Canada. □

Implementation of SMS in Canada

BY JOHN CARR, AEA CANADA REGULATORY CONSULTANT

Part IX:

Quality Assurance

This is the ninth in a series of articles that will 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 also was discussed, and sample gap analyses for development of a safety management plan and the documentation elements of SMS are being provided.

This article will continue with illustration of the sample gap analysis to address the elements of the quality assurance 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. |
|--|--------------------------|---|
|--|--------------------------|---|

Component 5, Quality Assurance – Element 5.1, Operational Quality Assurance (CAR 107, CAR/STD 573.16³)

In a SMS, the quality assurance program elements can be applied to an understanding of the human and organizational issues that can impact safety. In the same way that a QAP measures quality and monitors compliance, the same methods are used to measure safety within the organization. In the SMS context, this means quality assurance of the SMS, as well as quality assurance to ensure compliance to the CARs, standards and procedures utilized by the organization.

| | | |
|--|--|---|
| <i>Is a quality assurance system established and maintained and under the management of an appropriate person?</i> | Yes | As a condition of the existing AMO certificate, I/we meet applicable CAR 573.09, QA Program requirements. |
| <i>Does the organization conduct reviews and audits of its processes, its procedures, analyses, inspections and training?</i> | Yes | In order to meet additional SMS QA requirements, I/we have implemented the following: |
| <i>Does the organization have a system to monitor for completeness, the internal reporting process and the corrective action completion?</i> | No | <ul style="list-style-type: none"> • Existing independent audit procedures will continue to be followed (n/a for 1-person AMO). • The organization has added applicable SMS components to existing annual internal audit checklists, to include: <ul style="list-style-type: none"> ◦ Safety policy. ◦ Non-punitive reporting policy (n/a for 1-person AMO). ◦ Roles, responsibilities, and employee involvement (n/a for 1-person AMO). ◦ Communications (for 1-person AMO, only applicable to external communications). ◦ Safety planning objectives and goals. ◦ Performance measurement and management review. ◦ Identification and maintenance of SMS applicable regulations. ◦ SMS documentation and records management. ◦ Reactive and proactive processes, investigation and analysis. ◦ Risk management. ◦ Training. ◦ Emergency preparedness and response. ◦ Review of safety critical functions. |
| <i>Is there an operationally independent audit function with the authority required to carry out an effective internal evaluation program?</i> | No (1-person AMO) Yes (AMOs > 1-person) | |
| <i>Does the quality assurance system cover all functions defined within the certificate(s)?</i> | No | |
| <i>Are there defined audit scope, criteria, frequency and methods?</i> | Yes | |
| <i>Are there selection/training process to ensure the objectivity and competence of auditors as well as the impartiality of the audit process?</i> | Yes | |
| <i>Is there a procedure for reporting audit results and maintaining records?</i> | Yes | |
| <i>Is there a procedure outlining requirements for timely corrective and preventive action in response to audit results?</i> | Yes | |
| <i>Is there a procedure to record verification of action(s) taken and the reporting of verification results?</i> | Yes | |
| <i>Does the organization perform periodic management reviews of safety critical functions and relevant safety or quality issues that arise from the internal evaluation program?</i> | Yes | Additional SMS audit component training will be provided if required. |

SUMMARY

The SMS safety oversight elements of quality assurance would, therefore, be additions to the AMO's existing quality management system. However, both systems have a common goal of managing operational risks, and SMS quality assurance will, therefore, be an extension of the AMO's existing quality management system.

AC107-001 Sec. 9.0 contains guidance for implementation of the quality assurance elements that may be used by AMOs of all size and complexity as appropriate.

The next article in this series will look at the emergency preparedness elements of the Safety Management System.

¹ 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.