



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.

UNITED STATES News & Regulatory Updates

Final Rule Amends FAA's Regulations for Aircraft Registration

The final rule regarding re-registration and renewal of aircraft registration amends the FAA's regulations concerning aircraft registration. During a three-year period, this rule will terminate the registration of all aircraft registered before Oct. 1, 2010, and will require the re-registration of each aircraft to retain U.S. civil aircraft status.

These amendments also establish a

system for a three-year recurrent expiration and renewal of registration for all aircraft issued registration certificates on or after Oct. 1, 2010.

This final rule amends the FAA's regulations to provide standards for the timely cancellation of registration numbers (N-numbers) for unregistered aircraft. It makes other minor changes to establish consistency and ensure the regulations conform to statute or current registry practices.

These amendments will improve the accuracy of the Civil Aviation Registry database and ensure aircraft owners provide information to maintain accurate registration records. These amendments respond to the concerns of law enforcement and other government agencies to

provide more accurate, up-to-date aircraft registration information. The rule can be viewed at <http://edocket.access.gpo.gov/2010/pdf/2010-17572.pdf>.

Notice Announces Cancellation of TSO C-60

A recent notice announces the cancellation of Technical Standard Order C-60, "Airborne Area Navigation Equipment Using Loran-C Inputs," and all subsequent revisions.

The effect of the cancelled TSOs will result in the revocation of all technical standard order authorizations issued for the production of those navigational systems. These actions are necessary because the Loran-C navigation system ceased operation Feb. 8, 2010.

FREQUENTLY ASKED QUESTIONS

United States

ADS-B

The following information is from an FAA legal interpretation.

QUESTION:

According to §91.217(b), "no person may operate any automatic pressure altitude reporting equipment associated with a radar beacon transponder or with ADS-B Out equipment

unless the pressure altitude reported for ADS-B Out and Mode C/S is derived from the same source for aircraft equipped with both a transponder and ADS-B Out." Does this mean legacy Capstone ADS-B installations are no longer valid?

ANSWER:

No. FAA legal has determined that because the original Capstone installations do not meet the definition of modern ADS-B, the §91.217(b) requirement for a single pressure-altitude reporting source does not apply.

The following is from an FAA legal interpretation dated July 29, 2010:

“In setting forth the requirements for equipment and use of ADS-B, the FAA determined that aircraft must have equipment installed that meets TSO-C166b or TSO-C154c as appropriate, and must meet the performance requirements articulated in §91.227. Even though in the rulemaking process the FAA proposed earlier versions of the two TSOs stated above, the FAA concluded that mandating the use of TSO-C 166b/TSO-C 154c, which are the more mature standards, fully supports domestic and international ADS-B air traffic control surveillance. (See 75 Fed. Reg. 30163.)

“Furthermore, in the preamble discussion of the final rule, the FAA responded to inquiries as to whether it would be operationally feasible to use previous versions of DO-260 avionics in radar and non-radar airspace before 2020. The FAA found that the existing DO-260 avionics does not meet the surveillance needs for ATC for several reasons:

1) DO-260 avionics do not independently report the accuracy and integrity metrics.

2) DO-260 avionics allows the integrity metric to be populated with accuracy information during integrity outages, which is unacceptable for aircraft separation services.

3) DO-260 avionics do not include a message element for Mode 3/A code, which is necessary for aircraft surveillance.

4) The majority of existing DO-260 installations were accomplished on a noninterference basis under the transponder approval guidelines.

“Consequently and absent upgrades to the avionics, this equipment does not meet surveillance needs in the NAS and cannot be used for separation of aircraft. (See 75 Fed. Reg. 30176.)

The contemporaneous amendment to §91.217(b) in the ADS-B rulemaking linked together the ADS-B equipment requirements set forth in §91.225 and §91.227 and the pressure altitude reporting requirements of §91.217. Therefore, the ADS-B equipment referred to in §91.217(b) must meet the performance standards required in §91.225 and §91.227. Equipment that does not meet §91.225 and §91.227 is not subject to §91.217(b).”

CANADA

News & Regulatory Updates

Transport Canada SMS Information Session Set for November

The next TCCA safety management systems information session will take place Nov. 24-25, at the Fairmont Queen Elizabeth hotel in Montreal, Quebec.

During the first day, simultaneous workshops will be offered in the morning and the afternoon. On the second day, these workshops will be repeated in the morning, followed by a plenary session in the afternoon.

The intent of this two-day session is to provide information regarding

the implementation of TCCA’s SMS regulations. The objectives of this information session are to provide:

- basic information regarding SMS implementation;
- an overview of the SMS regulations;
- an update on exemptions and implementation phases; and
- the opportunity to exchange information and best practices.

The target audience of this session includes airport operators, approved maintenance organizations, air navigation service providers, air operators and air traffic services organizations. Persons responsible for implementing SMS are encouraged to attend. For more information, visit www.tc.gc.ca/eng/civilaviation/standards/sms-info-menu-638.htm.

Transport Canada Assesses Parallels Between QMS and SMS

In an aviation safety letter, TCCA provides an overview of the differences between a quality management system and a safety management system. According to TCCA, although there are many similarities between an SMS and a QMS, they both are critical to the functioning of the organization and their outcomes are distinctly different.

Quality, and its associated management system, focuses on characteristics typically expressed in terms of value and of its products, programs or services. SMS, with its focus on safety, is the minimization and management of operational risk related to human and organizational factors.

To read the complete article, visit www.tc.gc.ca/eng/civilaviation/publications/tp185-3-10-pre-flight-5822.htm#prevention.

Updates continued on following page

EUROPE News & Regulatory Updates

Proposal Would Amend European Light Aircraft Regulation

The comment response document to NPA 2008-07, “ELA Process” and “Standard Changes and Repairs,” for the implementation of a simpler process for certification, standard changes and repairs to European light aircraft has been issued.

The content of this CRD is a proposal to amend EC 1702/2003 Part 21 with a new/amended regulation for the lower weight category aircraft ELA. The amendment includes a new Subpart L for the approval of organizations responsible for design and production of ELAs. The NPA further proposes the introduction of two new certification specifications, such as the CS-LSA (light sport aircraft) up to 600/650kg, which should be based on the American Society for Testing and Materials standards, and a new CS-23Light,

which covers light airplanes up to 1200 kg MTOM. In addition, the document proposes an extension of the scope of CS-VLA (increase to 890 kg and three seats) and CS-22 (sailplanes and powered sailplanes up to 900kg) and the allocation of certification tasks to qualified entities in addition to national authorities.

The CRD provides the proposal to Part 21 and discusses the impact on other regulations. The proposed changes to the certification standards will be discussed and proposed in Part II of the CRD, which expected to be issued soon.

Eventually, this proposal would require an additional new NPA to amend the basic regulation to propose the necessary modifications to the implementation rules to achieve an adapted and accepted level of regulation for aircraft eligible for the ELA process for airworthiness, to harmonize with other authorities, and to propose that TCs are not needed for engines and propellers for some ELA aircraft.

Comments Due Oct. 19 for Contract Maintenance NPA

For Part 145 organizations employing contracted maintenance personnel to

perform services, NPA 2010-08, “Control of Contracted Maintenance Personnel,” might be of interest. The current general personnel requirements defined in 145.A.30 and 145.A.35 provide specific minimum standards for any personnel performing maintenance tasks, how the organization provides for a man-hour plan, and for competence assessment of each individual.

While this forms the legal basis, feedback to EASA seems to indicate approved maintenance organizations generally comply with these requirements when referring to personnel directly employed, but not always when the personnel are contracted through other organizations, especially for short-duration contracts.

The NPA presents a proposal for the proper assessment of individuals by approved organizations. By intention of the working group, it has presented this proposal with no distinguished difference between contracted and employed personnel because both must satisfy the same requirements.

The NPA contains the proposed changes to the AMC and GM of Part 145. Comments should be submitted by Oct. 19.

FREQUENTLY ASKED QUESTIONS

Europe

Electrical Wire Interconnect System

The following information is from an EASA FAQ.

QUESTION:

How will the EWIS/EZAP assessment affect minor modifications and repairs for TCs/STCs? If the requirements are found to be applicable, would this affect their classification, such as minor becoming major?

ANSWER:

Applicability to changes for TCs/STCs is addressed in the question: “Are these requirements applicable to any major design change or only to significant or substantial change where the latest requirements must be considered

(according to Part 21A.101)?” By principle, the classification of the change is driven by Part 21A.91. The fact that EWIS ICA may be revised is not in itself a driver for the classification.

For FAR Part 26 compliance, if the change needs a revision to the previously developed and approved EWIS ICA, the FAA requires the revised EWIS ICA must be submitted to the foreign CAA (for non-U.S. products) for approval, independently of the minor/major change classification.

In case the certification basis is CS-25 Amdt 5 (or later) according to Part 21A.101 (for example, the STC is a significant change related to EWIS aspects or a new product) will the EWIS ICA discriminate (>30 pax or >7,500 lb) still apply? No. If the certification basis is the CS-25 Amdt 5 (or later), all the large airplanes covered by CS-25 shall need to demonstrate compliance with the EWIS regulations without exception.

SOUTH PACIFIC News & Regulatory Updates

Freedom of Information Documents Released

The Civil Aviation Safety Authority has released selected documents sought under the Freedom of Information Act to Wayne Vasta, assistant federal secretary of the Australian Licensed Aircraft Engineers Association, and Michael McKinnon, freedom of information editor for the Seven Network.

The documents were among those CASA decided, in 2007, were exempt from disclosure under the Freedom of Information Act. The Administrative Appeals Tribunal formed the view that some of the documents sought were not exempt from disclosure. The tribunal further found that portions of the documents to which McKinnon sought access in 2008, and which CASA also decided were exempt from release under the Freedom of Information, were exempt and therefore not subject to disclosure.

In accordance with the tribunal's decision, CASA has released the documents the tribunal found not to be exempt from disclosure to Vasta and McKinnon.

For more information about the Administrative Appeals Tribunal's decision, visit www.aea.net/governmentaffairs/southpacific. □

Updates continued on following page

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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Implementation of SMS in Canada

BY JOHN CARR, AEA CANADIAN REGULATORY CONSULTANT

Part III: *The Safety Management Plan*

This is the third in a series of articles focusing on the implementation of safety management systems in Canadian AMOs to meet the upcoming Transport Canada regulatory requirements for SMS. Parts 1 and 2 of this series, which were published in the August and September 2010 issues of *Avionics News*, 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 a sample gap analysis for developing a safety management plan was provided.

This article continues with illustrations of a sample gap analysis to address the communications, safety planning, performance measurement and management review elements of the safety management plan. Noted in the sample are instances when an AMO’s existing quality assurance program can satisfy the SMS elements.

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 (1-10 persons) ¹ | Large AMO (>10) ² |

Component 1, Safety Management Plan – Element 1.4, Communications (CAR 107, CAR/STD 573.16³)

A form of interdepartmental communication is the safety committee. Safety committees can provide an effective forum for discussion, particularly in larger, more complex organizations, and they can provide benefits to the organization. Safety committees provide a forum for discussing safety-related issues from a cross-functional perspective and can lead to the inclusion of issues that look at safety from a broader viewpoint.

| | | | |
|---|----|---|--|
| Are there communication processes in place within the organization that permit the safety management system to function effectively? | No | 1- person AMO: Include a brief Communications Statement per Example in AC107-002 | AMO > 10 persons: Refer to AC107-001, Sections 4.12 and 4.13. |
| Are communication processes (written, meetings, electronic, etc.) commensurate with the size and scope of the organization? | No | 2-10 person AMO: Include a Communications Statement per Example in AC107-002. | <i>Where an AMO has set up a Quality Board to review quality assurance items, the functions of this board or committee may be expanded to satisfy SMS requirements for a safety committee.</i> |
| Is information established and maintained in a suitable medium that provides direction in related documents? | No | For a 2-10 person AMO this will add internal communications elements and the need for meetings to review safety related information. This may be combined with existing quality assurance meetings. | |
| Is there a process for the dissemination of safety information throughout the organization and a means of monitoring the effectiveness of this process? | No | | |

Component 1, Safety Management Plan – Element 1.5, Safety Planning, Objectives and Goals (CAR 107.03, STD 573.16)

Establishing a set of safety objectives is key to establishing a successful SMS. Safety objectives define what the organization hopes to accomplish with its SMS. Safety objectives are the broader targets the organization hopes to achieve. They should be published and distributed so all employees understand what the organization is seeking to accomplish with its SMS.

Goal-setting is vital to an organization's performance and helps define a coherent set of targets for accomplishing the organization's overall safety objectives.

Sound safety objectives and goal-setting concentrate on identifying systemic weaknesses and accident precursors, and either eliminating or mitigating them.

| | | | |
|---|----|---|---|
| Have safety objectives been established? | No | 1-person AMO: Include a brief Safety Planning Statement per Example in AC107-002. | AMO > 10 persons: Refer to AC107-001 Sec. 4.3 for guidance on safety planning, objectives and goals. |
| Is there a formal process to develop a coherent set of safety goals necessary to achieve overall safety objectives? | No | 2-10 person AMO: Include a Safety Planning Statement per Example in AC107-002. | |
| Are safety objectives and goals publicized and distributed? | No | 2-10 person AMO: Include a Safety Planning Statement per Example in AC107-002. | |

Component 1, Safety Management Plan - Element 1.6, Performance Measurement (CAR 107.03, CAR/STD 573.16)

The safety performance of the operation needs to be monitored, proactively and reactively, to ensure the key safety goals continue to be achieved. Monitoring by audit forms a key element of this activity and should include both a quantitative and qualitative assessment, meaning a numeric, as well as an affectivity assessment, should be applied. The results of all safety-performance monitoring should be documented and used as feedback to improve the system.

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|---|----|--|---|
| Is there a formal process to develop and maintain a set of performance parameters to be measured? | No | 1-person AMO: Include a Performance Measurement Statement per Example in AC107-002. 2-10 person AMO: Include a Performance Measurement statement per Example in AC107-002. For a 2-10 person AMO this will include the analysis and allocation of resources, formation of a committee to review safety performance, and additional performance measurement parameters. | AMO > 10 persons Refer to AC107-001 Sec. 4.5 guidance on SMS performance measurement and a simple example. |
|---|----|--|---|

Component 1, Safety Management Plan - Element 1.7, Management Review (CAR 107.03, CAR/STD 573.16)

To ensure the SMS is working effectively, the accountable executive should conduct a periodic review of the SMS processes and procedures. To the extent possible, the review should be conducted by individuals not performing tasks directly related to the SMS. The safety manager, for example, should not be reviewing the SMS, as he or she is an integral part of the system. The review also should include an assessment of how well the organization is achieving its specific safety goals, the success of the corrective action plans and the risk-reduction strategies implemented.

| | | | |
|--|----|--|---|
| Are regular and periodic, planned reviews of company safety performance and achievement including an examination of the company's Safety Management System conducted to ensure its continuing suitability, adequacy and effectiveness? | No | 1-person AMO: Smaller organizations may choose to identify safety performance parameters and measure them (per 1.6 above) in combination with the management review process. | AMO > 10 persons Refer to AC107-001 Sec. 4.17 guidance on the management review functions. |
| Is there a process to evaluate the effectiveness of corrective actions? | No | Refer to AC107-001 Sec. 1.6 & 1.7 (combined) for details. | |

SUMMARY

The safety management plan introduces additional new elements that would not be included in a quality assurance or quality management system; therefore, those existing systems will not contain the required elements of the safety management plan. However, particularly for smaller organizations, many of the elements of the safety management plan could be combined with existing quality functions and managed with existing resources. The next article in this series will look at the documentation elements of the safety management system.

(Footnotes)

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