



INTERNATIONAL NEWS AND REGULATORY UPDATES

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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.

Change is in the Wind

For the past couple of years, the Civil Aviation Safety Agency has been rewriting the aviation regulations of Australia — actually, there are some members who have said they cannot remember a time when CASA was not rewriting the regulations. Anyway, change is in the wind and this is not necessarily bad.

Yes, it's change, which has its own challenges. And it's a new way of doing business, which almost always is more costly — at least in the beginning. And yes, the 800-pound gorilla — the airline industry — is the main driver. While we recognize the needs and wants of the airline industry, our task is to ensure CASA is aware of our needs as well.

In August, we hosted the annual AEA South Pacific Meeting in Perth, Australia. As usual, the meeting agenda was solid, with a great deal of technical content, and it was well supported by the exhibitors and distributors. This year's meeting was important from a regulatory perspective because of the wholesale regulatory changes in process with CASA and its participation in the AEA meetings.

CASA representatives attended our South Pacific Meeting to hear from you — and they certainly did this year. We would like to thank Jim Coyne and Mick English for taking the time to fly to Perth to make presentations to the AEA membership.

The international meetings have one thing in common: The total head count

everyone in the industry. And they can meet one-on-one with interested and affected parties; they get to hear what works and what doesn't.

This year was a great one for regulatory affairs. First, the AEA introduced our strong right arm for the Australian membership: Bruce Baxter. Now retired, Baxter has been involved

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is not what exhibitors see during the AEA's regional meetings in the U.S., but they represent a higher percentage of the avionics businesses. Whether in Europe, Canada or the South Pacific, the total attendance is not as high as at the U.S. regional meeting but nearly every member repair station is represented. For the regulatory bodies, this is a significant benefit — they can make one stop and catch nearly ev-

with the AEA for many years and has been attending the AEA South Pacific Meetings since their inception.

As our new South Pacific regulatory consultant, Baxter attends CASA rulemaking committee meetings with me; he makes calls to the few avionics shops in the region that are not already AEA members; and he contacts local CASA regional offices to get them more involved in AEA.

During this year's AEA South Pacific Meeting, Jim Coyne brought our membership up-to-speed on the changes taking place within CASA. Although the names were changed to protect the innocent, it sure seemed like déjà vu. Every year, we seem to get the latest updated changes within this organization — no wonder it is so hard to get things through the marble halls of CASA.

Mick English briefed us about the latest proposed changes, listened to our membership and attempted to recognize ways of managing the changes to minimize the impact to the avionics industry in Australia.

Following the meeting in Perth, I spent another three days in Canberra, Australia, visiting with CASA leadership and AEA members. In Canberra, I was able to meet with the lead personnel on the Part 66 and Part 145 re-writing project. We were able to bring the issues our membership discussed in Perth back to Canberra, and we received a strong and understanding reception to most of our issues.

Of course, this doesn't mean the changes will go away or CASA will dismiss its proposed changes; however, the reception I received was one of amending the proposal slightly to better adapt the rules to the aviation small businesses typically represented by the avionics industry.

During the visit, which was hosted by Coyne, I was able to meet with and introduce the AEA to the new leadership team of the reorganized offices. While we might be a relatively small organization, we are one of the very effective voices representing the industry before CASA.

UNITED STATES News & Regulatory Updates

FAA Small Airplane Directorate Publishes Three ACs for Comment

The FAA recently published three advisory circulars, which are open for comment.

The FAA's advisory circular AC 23-17C, "Systems and Equipment Guide for Certification of Part 23 Airplanes and Airship," sets forth an acceptable means of showing compliance with Title 14 of Code of Federal Regulations, Part 23, for the certification of systems and equipment in normal, utility, acrobatic and commuter category airplanes and airships.

The policy in this AC is considered applicable for airship projects; however, the certifying office should use only specific applicability and requirements if they are determined to be reasonable, applicable and relevant to the airship project.

Comments are due Nov. 27, 2009.

The FAA's advisory circular AC 23.1309-1E, "System Safety Analysis and Assessment for Part 23 Airplanes," provides means of showing compliance with 14 CFR, Part 23, §23.1309, Amendment 23-XX, for equipment, systems and installations in 14 CFR, Part 23 airplanes. Applicants may follow approved alternate methods

Comments are due Nov. 20, 2009.

The FAA's advisory circular AC 23.1311-1C, "Installation of Electronic Display in Part 23 Airplanes," provides means of showing compliance with 14 CFR, Part 23, for installing electronic displays in Part 23 airplanes. Applicants may follow approved alternate methods.

Comments are due Nov. 20, 2009

The draft ACs can be viewed at www.faa.gov/aircraft/draft_docs.

FAA's Oversight of Repair Station's Technical Data Revised

The FAA has revised FAA Order 8900.1 with Change 72, which affects Volume 6, "Surveillance," Chapter 9, "Part 145 Inspections," Section 7, "Inspect a Part 145 Repair Station's Technical Data."

The changes to the FAA's oversight of a repair station's technical data includes, in part:

c) Inspection Programs. Part 91, §91.409(e) requires owners/operators of certain large aircraft to select an inspection program under §91.409(f). In turn, §91.409(f) requires the owner/operator to use the program it selected and identified in the maintenance records of the aircraft. Therefore, the maintenance provider should use either the inspection program that has been selected and identified by the owner/operator in the aircraft maintenance records or the most recent manufacturer's inspection program.

d) Program Availability. It should be noted that §91.409(f) also re-

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quires each operator to include in its identification of the selected program the name and address of the person responsible for scheduling the inspections required by the program and make a copy of that program available to the person performing inspections on the aircraft and, upon request, to the Administrator.

Note: To comply with a regulatory requirement to incorporate the current manufacturer's recommended inspection program, an operator need only properly adopt a manufacturer's program that is "current" as of the time the operator selects and identifies it in the aircraft maintenance records. The program remains "current" unless the FAA mandates revisions to it in the form of an airworthiness directive or an amendment to the operating rules. The interpretation is available at www.faa.gov/about/office_org/headquarters_offices/agc/pol_adjudication/agc200/interpretations/data/interps/2008/Aircraft%20Maintenance.pdf.

g) Air Carrier's Approved/Accepted Data. Each air carrier will have a process to approve data for major repairs or alterations. The air carrier has the responsibility to determine if the repair or alteration is major. Once the maintenance is determined to be major, the air carrier should provide the repair station with documentation that the repair or alteration has approved data. The repair station may have other data that has been approved, but the air carrier must authorize the repair station to use that data if the repair station is providing maintenance for the air carrier.

FREQUENTLY ASKED QUESTIONS

United States

Classification of Aircraft

The following information is from FAA Advisory Circular AC 23.1309-1D.

QUESTION:

There are a number of STCs approved for Part 23, Class I and Class II aircraft but not Class III. What are the classifications of Part 23 airplanes and where can I find the information?

ANSWER:

Currently, the information is found in FAA Advisory Circular AC 23.1309-1D.

As listed in the AC, the four certification classes of Part 23 airplanes are:

- Class I airplanes, which typically are single reciprocating engine airplanes under 6,000 pounds.
- Class II airplanes, which typically are multiple reciprocating engine, multiple turbine engine and single turbine engine airplanes under 6,000 pounds.
- Class III airplanes, which typically are all Part 23 aircraft equal to or more than 6,000 pounds.
- Class IV airplanes, which typically are commuter category airplanes.

All weights are based on maximum certificated gross takeoff weight. According to the FAA Small Airplane Directorate, the maximum certificated gross takeoff weight is at the time of initial certification; that is, the maximum certificated gross takeoff weight as listed on the original type certificate data sheet.

For example, an aircraft for which its initial certification was as a Class II airplane below 6000 pounds would not automatically rise to a Class III aircraft because of the installation of an aftermarket STC that included a gross weight increase to more than 6,000 pounds.

CANADA

News & Regulatory Updates

Transport Canada Provides Details of Upcoming Agreement with EASA

TCCA has provided the AEA with more details concerning the upcoming TCCA/EASA Agreement on Civil Aviation Safety. The agreement will provide the possibility for acceptance without review or issuance of a corresponding approval document, subject to specified conditions, for:

- Appliances and parts, such as TSOs
- Replacement parts, such as part design approvals
- Repairs, such as repair design approvals

The agreement will provide that applications for the validation of a type certificate or STC will be subject to a level of review and the issue of a corresponding approval document. However, applications for the validation of an STC or the approval of a replacement part will be accepted only for those cases in which the exporting country has issued a type certificate for the affected aeronautical product.

For EASA validation acceptance of a Canadian-issued STC, this means the aircraft listed on the STC must have been issued a type certificate from TCCA. This includes those FAR 23 aircraft for which TCCA has "accepted" the FAA type certificate as the basis of type certification without issuing a TCCA type-certificate number. However, EASA regulatory requirements do not provide for the issuance of multi-model STCs. Application for EASA validation of a multi-model STC may result in multiple applications.

EASA still will charge applicants an hourly fee for STC validations; however, it is understood the hours required for validation under the new agreement should be less than the hours spent under the current situation in which EASA conducts a full review of STC applications from Canada. As soon as the agreement is available publicly, a regulatory bulletin will be sent to all Canadian members of the AEA and details of the agreement will be published on the AEA website at www.aea.net.

Transport Canada to Accept RTCA Guidance for Installation of Non-Required Equipment

The RTCA recently published DO-313, "Certification Guidance for Installation of Non-Essential, Non-Required Aircraft Systems and Equipment." An RTCA committee of representatives from industry, the FAA and TCCA developed this document.

RTCA DO-313 contains useful information that can be used in preparing a certification plan for modification applications, specifically procedures for electromagnetic capability testing, system safety assessment and electrical loads analysis. TCCA has indicated it is willing to accept DO-313 as one acceptable means of compliance for the electrical elements of the installation of non-required equipment, as well as the use of RTCA/DO-294 and DO-307 as guidance material for the airworthiness approval of a wireless cabin entertainment or communications system.

Subsequently, TCCA may publish an advisory circular.

TCCA has indicated it will provide more details in an FAQ response to be published on its

National Aircraft Certification website. When it is available, the link to this site will be published on the AEA website, www.aea.net.

EUROPE **News & Regulatory Updates**

EASA Issues Online Questionnaire Regarding Human Factors

The European Aviation Safety Agency has issued an online questionnaire regarding human factors. It was established from an analysis of aircraft accident and incident data that human factors are a leading causal factor in aviation accidents. Some reports suggest the contribution of human error as a causal factor in airline accidents might be as high as 80 percent and could be higher still in other aircraft categories.

The difficulty EASA is facing in the development of future safety enhancements is the underlying causes contributing to human error can be manifested in all areas of human activity, making the determination of key safety issues problematic based on the data available. Therefore, this dedicated questionnaire was created to provide an opportunity for stakeholders to influence the agency's future human factors rulemaking strategy.

Some of the questions focus on the commenter view of EASA's rulemaking procedures and whether or not its reliance on individual task priorities is the best approach to human factors regulation. The questionnaire is part of Rulemaking Task MDM.035, "Human Factors," and is available on the agency website at www.easa.eu.int.

EASA Issues Executive Decision, Opinion of Interest to AEA Members

EASA issued an executive decision amending the current AMC material to Part 21. The decision, ED 2009/11/R, addresses topics of interest to AEA members. As part of the NPA process, EASA has evaluated further possibilities for the approval of changes and repairs to European technical standard order articles, in addition to those existing in Part 21, with the objective of providing more flexibility.

However, the comments received seem to indicate this would not provide the requested flexibility. Therefore, EASA has issued new guidance material to increase the awareness of an existing option to approve a minor change to an ETSO article as a change to the product in which it is installed. The identified option EASA provided in the new guidance material to 21A.611 needs prior verification by the applicant if it meets his intention.

Based on the outcome of NPA 2008-09, EASA has issued Opinion 01/2009, including supporting documents to the European Commission, suggesting the amendment of the Annex to EC 1702/2003, Part 21. The main intent was to allow the same flexibility perceived to exist establishing the certification basis for type certificates when establishing the certification basis for changed products (STCs, minor changes) in accordance with 21A.101, "Changed Product Rule." Possible implications will need to be evaluated by the applicant.

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FREQUENTLY ASKED QUESTIONS

International

Aircraft Mods

The following information is derived from an EASA “Frequently Asked Questions.”

QUESTION:

My aircraft has been modified in the United States by Form 337 action. Can EASA accept this?

ANSWER:

There is no automatic acceptance of Form 337 approvals by EASA, except under certain limited conditions. They need to be assessed individually and might need to be separately approved, normally by application for a minor change or by an approved organization under their DOA.

QUESTION:

How do I know whether an STC has been grandfathered?

ANSWER:

Any STC approved or validated by any member state before the establishment of EASA is deemed as “grandfathered,” under Regulation 1702/2003, Article 2 (3)(a). Unfortunately, there are tens of thousands of these approvals, and it has not been possible to put together a database. EASA normally recommends contacting the STC holder (the FAA website has

these details) and checking with them directly as to whether or not they have any European Union customers. The STC holder should know who its customers have been because it has obligations to maintain continued airworthiness for modifications.

QUESTION:

How does EASA deal with approved model list supplemental type certificates (AML STCs)?

ANSWER:

In general, an STC can apply to only one type certificate. Certain exceptions can be made when the installation of a piece of simple equipment is clearly identical from one aircraft type to another; however, EASA procedures state an STC should apply to only one type certificate. Each new type certificate should be the subject of a new application. This principle also applies to the validation of FAA STCs. □

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.

errors. Does the organization have a procedure to report OEM failures to the OEM and the FAA? Is there a process for follow-up? Does the organization have a process for developing alternative processes when a given process or procedure is no longer valid because of changes and alterations to the product?

- Personal issues led to the technician being tired and not at his peak. What can be put in place to minimize this risk in the future? Perhaps, an open door policy is needed, one saying, “Hey boss, I’m not at my peak today; how about if I not perform any final inspections and return-to-service?”

- Normal procedures allow (demand) technicians to constantly be pulled in different directions without considering the critical nature of the immediate task. When I’m in the middle of writing my monthly articles for *Avionics News*, I often turn off the phone and put myself in a sterile environment so I can focus on the task at hand. I’ll pick up the voicemails later. In the cockpit of commercial airplanes, there is a procedure for a sterile cockpit below 10,000 feet to minimize distractions at a critical phase of flight (landing). Does the maintenance organization have procedures to manage distractions, especially at critical phases of maintenance?

- The corporate culture has led to a belief that deviating from published procedures is acceptable and encouraged. I’m sorry to be the bearer of bad news, but you are the corporate culture. How are you going to change your demonstrated behavior so you are not “broadcasting” through your words and actions this is the accepted norm?

The solutions address not “what” went wrong but rather “why” they went wrong.

I believe accidents and incidents can be reduced when we focus on the root causes — which is the “why” — of actions or inactions of our technicians — who are the verb of “human performance” — rather than trying to regulate objectively the failure to follow procedures — the noun of “human factors.” □