



INTERNATIONAL NEWS AND REGULATORY UPDATES

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, Avionics News is introducing an enhanced "International News & Regulatory Updates" section. Contained in this section is a greater focus on international regulatory activity, more international industry news, and a new international "Frequently Asked Questions" section to help promote standardization.

If you have comments about this section, send e-mails to avionicsnews@aea.net.

UNITED STATES News & Regulatory Updates

FAA Extends Comment Period for ADS-B Out Proposal

The Federal Aviation Administration is extending the comment period for an NPRM published Oct. 5, 2007. In this document, the FAA proposed performance requirements for certain avionics equipment on aircraft operating in specified classes of airspace within the United States National Airspace System.

The comment period for the NPRM was scheduled to close Jan. 3, 2008; however, it is now extended until March 3, 2008.

To access an electronic copy of the proposal, visit the AEA's members-only website, Resource One, at www.aea.net/R1.

FAA Stops Printing, Distribution of Hard-Copy Advisory Circulars

The Federal Aviation Administration announced the cessation of printing and distribution of advisory circulars issued by the Aircraft Certification Service, which was effective Oct. 1, 2007.

Technology currently allows advisory circulars to be posted and accessed

from a public website, the Regulator and Guidance Library at <http://rgl.faa.gov>.

In the past, the only way for the public to view advisory circulars issued by the Aircraft Certification Service was to receive a printed copy in the mail. The FAA provided means for anyone in the public to be placed on a mailing list to receive (or purchase if the advisory circular was larger than a certain size) copies of these documents.

Because of easy public access through the Regulator and Guidance Library website, the Aircraft Certification Service determined it is no longer necessary to print and distribute hard copies of advisory circulars. Now, the public will have access to advisory circulars issued by the Aircraft Certification Service through the website almost immediately, while the cessation of printing and mailing will result in a cost savings.

Final Rule Clarifies Design Requirements for Wiring Systems

The Federal Aviation Administration amended the regulations addressing the design, installation and maintenance of airplane electrical wiring systems for the certification and operations of certain transport category airplanes.

These changes are needed to help en-

sure continued safety of commercial airplanes. They improve the design, installation and maintenance of airplane electrical wiring systems, and align those requirements as closely as possible with the requirements for fuel tank system safety.

This final rule organizes and clarifies design requirements for wire systems by moving existing regulatory references to wiring into a single section of the regulations specifically for wiring and by adding new certification rules. It requires holders of type certificates for certain transport category airplanes to conduct analyses of their airplanes and make necessary changes to existing Instructions for Continued Airworthiness (ICA) to improve maintenance procedures for wire systems. It requires operators to incorporate ICA for wiring into their maintenance or inspection programs. And, finally, this final rule clarifies requirements of certain existing rules for operators to incorporate ICA for fuel tank systems into their maintenance or inspection programs.

These amendments were effective Dec. 10, 2007.

To view the amendments, visit <http://a257.g.akamaitech.net/7/257/2422/01jan20071800/edocket.access.gpo.gov/2007/pdf/E7-21434.pdf>.

FAA Issues Policy Statement on Flammability of Coaxial Cable

The Federal Aviation Administration issued a policy statement, PS-ACE100-2007-002, 14 CFR Part 23, Sections 23.853, 23.855, 23.863 and 23.1359, "Flammability of MIL-C-17/60, /93, /94, /113, /127 and /128 Coaxial Cable," clarifying certification policy on Part 23 and the airship design criteria (ADC).

The policy statement clarifies Part 23, Sections 23.853, 23.855, 23.863 and 23.1359 for installing coaxial cable in Part 23 aircraft. It applies to normal, utility, acrobatic and commuter category airplanes. It also applies to non-rigid airships (ADC, Sections 4.39, 4.40 and 6.21) certificated in the normal category (14 CFR Part 21, Section 21.17(b)) with nine passenger seats or less. Material in the policy is neither mandatory nor regulatory in nature and does not constitute a regulation.

Policy statement PS-ACE100-2007-002 was issued by the FAA's Small Airplane Directorate, Aircraft Certification Service, on Oct. 15, 2007.

FREQUENTLY ASKED QUESTIONS

United States

TOPIC: Avionics for Amateur-Built Experimental Aircraft

The following information is from the Federal Aviation Regulations.

QUESTION:

I have a customer who has an amateur-built experimental aircraft and he wants me to perform the transponder and encoder checks required by 91.411 and 91.413. The transponder and encoder are not TSO'd. Is it legal?

How do I perform the required checks of 14 CFR 91.411 and 91.413?

ANSWER:

This question can be defined further by asking three questions:

- Must an amateur-built experimental aircraft comply with Part 91 equipment requirements?
- Must the equipment be FAA-approved?
- Can I perform the tests if the equipment is not FAA-approved?

First, are these aircraft required to comply with Part 91? Yes.

To what is the rule applicable? With very few exceptions, Part 91 prescribes the rules governing the operation of all aircraft within the United States (14 CFR 91.1).

Second, must the equipment be FAA-approved? No.

Unless required by another operating rule (such as Part 121 or Part 135), transponder and encoder equipment does not need FAA approval.

For flight in all U.S. airspace, except operations conducted under Part 121 or Part 135, Section 91.215 requires all U.S.-registered civil aircraft to have and use ATC transponder equipment meeting the performance and environmental requirements of any class of TSO-C74b, TSO-C74c or TSO-C112 (14 CFR 91.215).

However, the rule does not require approval by the Administrator the way the TCAS rule does:

"Any traffic alert and collision avoidance system installed in a U.S.-registered civil aircraft must be approved by the Administrator." (14 CFR 91.221)

The transponder rule states, "Transponder equipment installed must meet the performance and environmental requirements of any class of TSO-C74b, TSO-C74c or TSO-C112." The transponder must "meet

the performance and environmental requirements" but not necessarily be "approved by the Administrator."

The challenge is for equipment not "approved by the Administrator" and not holding a TSO. It is up to the operator to show the equipment meets "the performance and environmental requirements of any class of TSO-C74b, TSO-C74c or TSO-C112." (14 CFR 91.217).

For the installer, does the customer understand the requirements to show compliance? How do you show compliance? Perhaps, the data necessary to show a non-TSO'd transponder meets the requirements of 91.217 would be an affidavit from the equipment manufacturer stating specifically that the product "meets the performance and environmental requirements of either TSO-C74b, TSO-C74c or TSO-C112."

The other area causing some confusion is 14 CFR 91.217. The regulations prohibits anyone from operating any automatic pressure altitude reporting equipment associated with a radar beacon unless, as installed, the equipment was tested and calibrated to transmit altitude data corresponding within 125 feet (on a 95 percent probability basis) of the indicated or calibrated datum of the altimeter normally used to maintain flight altitude, with that altimeter referenced to 29.92 inches of mercury for altitudes from sea level to the maximum operating altitude of the aircraft; or the altimeters and digitizers in the equipment meet the standards of TSO-C10b and TSO-C88, respectively (14 CFR 91.217).

So, the automatic pressure altitude reporting equipment is either tested to the standards in 91.217 or the equipment is shown to meet the standards of TSO-C10b for the altimeters and TSO-C88 for digitizers, but not both.

In general, it is technically feasible to install non-TSO'd transponders

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and encoders in any aircraft operating under Part 91; however, without support from the equipment manufacturer showing compliance with 14 CFR 91.215 and 91.217 it might not be practical. The operators must comply with Part 91, but they rely on the shops to make sure they are in compliance. On this one, they might need your counsel.

Third, does someone with an amateur-built experimental aircraft need to have his transponder and equipment tested, and can the repair station return-to-service the non-approved transponder and encoder to service? Yes, is the answer to both.

14 CFR, Section 91.413 prohibits any person from using an ATC transponder specified in 91.215(a), 121.345(c) or § 135.143(c) unless, within the preceding 24 calendar months, the ATC transponder has been tested and inspected and found to comply with Appendix F of Part 43.

The rule also requires, following any installation or maintenance on an ATC transponder where data correspondence error could be introduced, the integrated system has been tested, inspected and found to comply with Paragraph (c), Appendix E of Part 43 of this chapter. Clearly, the rule does not differentiate between aircraft with standard category airworthiness certificates and aircraft with experimental certificates.

In addition, neither Part 43, Appendix E nor Appendix F requires the maintainer to confirm the TSO of the equipment. Therefore, it is completely acceptable to apply Part 34, Appendix E or Appendix F to non-approved equipment. However, to properly perform the tests, you might need to know what mode and class the equipment is certified to in order to apply the proper parameters.

CANADA News & Regulatory Updates

The Relationship with Transport Canada: An Issues Resolution Process for AEA Canadian Members

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REGULATORY CONSULTANT

To conduct business efficiently and effectively, AEA members in Canada rely on cooperation and support from the staff at Transport Canada Civil Aviation (TCCA). However, as with any regulated business, there are times when members consider the support or response being received from the regulator as not satisfactory, with a resulting negative impact on your business.

The AEA has a history of effective communication with TCCA at both the regional and headquarters level. In the past, this communication has been initiated from ad hoc input from members, as well as by positions put by AEA staff and members to TCCA at meetings and workshops. TCCA recognizes the AEA as an advocate for avionics maintainers and manufacturers in Canada.

Recently, TCCA adopted a formal issues resolution process: the Civil Aviation Issues Reporting System (CAIRS). The AEA can assist members in achieving resolution of issues through this reporting system.

The AEA has staff and consultants available who are knowledgeable in TCCA regulations, standards and advisory material in the aircraft certification, manufacturing and maintenance aspects of the business. The AEA maintains up-to-date knowledge

of TCCA's organization and issues resolution processes. The Association also will retain a history of issues and their subsequent resolution, which can be referenced when similar issues arise.

In addition, the AEA has detailed knowledge of the TCCA/FAA and TCCA/EASA bilateral agreements and a good working relationship with officials in the FAA and EASA.

The AEA can help ensure a member's position on any issue is supported by correct interpretation of the regulations. If a resolution cannot be achieved at the local level, the AEA can help ensure the issue is presented to Transport Canada management in an effective manner through its CAIRS process.

TCCA is more likely to give higher priority to an issue submitted by an industry association rather than from an individual company.

The TCCA CAIRS process identifies initially seeking informal resolution of issues with local TCCA staff responsible for oversight of regulated functions. This includes discussing the issue with the appropriate TCCA regional manager.

In the event the issue cannot be resolved at the regional level, TCCA advocates a formal review be initiated through the central CAIRS process. As an alternative, TCCA indicates an established high-level redress mechanism could be adopted, such as writing a letter to the local minister of transport.

At members' request, the AEA will provide guidance and support through the issues resolution process. To view a flowchart outlining the CAIRS process steps published by TCCA, with the addition of support and intervention by the AEA where necessary, visit the AEA's members-only website, Resource One, at www.aea.net/R1.

FREQUENTLY ASKED QUESTIONS: International

TOPIC: Canada: Maintenance Policy Format

The following information is from the Canadian Aviation Regulations and Transport Canada Civil Aviation guidance material.

QUESTION:

Does Transport Canada require an AMO maintenance policy manual (MPM) to be in a specific format?

ANSWER:

No, the Canadian Aviation Regulations (CARs) only require the MPM to document the process by which an AMO achieves compliance with the regulatory requirements.

CAR 573.10 requires an AMO certificate holder to establish, maintain and authorize the use of a maintenance policy manual, which contains information to ensure the efficiency of the AMOs maintenance policies, dealing with the subjects set out in Standard 573, "Approved Maintenance Organizations." Standard 573.10 identifies the information required to be included in the MPM.

Transport Canada published TP 14308, "Transport Canada Civil Aviation Guidelines: Maintenance Policy Manuals," to aid AMOs in writing their MPMs. Under the heading "MPM Format," it states, "The format does not really matter; the content and intent do."

Also, TP 13751, "Aircraft Maintenance & Manufacturing Inspection and Audit (Checklists) Manual," states, "The manuals are reviewed to ensure that the means of

achieving compliance with regulatory requirements is referenced and documented by process."

If a TCCA inspector questions the format of an MPM during an audit of an AMO, you should draw the inspector's attention to the statements from TCCA publications identified above.

These can be viewed at www.tc.gc.ca/publications/EN/TP14308/PDF%5CHR/TP14308E.pdf and www.tc.gc.ca/civilaviation/publications/tp13751/menu.htm.

EUROPE News & Regulatory Updates

EASA: More than 8,000 Comments Received for Light-Aircraft NPA

For anyone involved in the certification, alteration, maintenance or operation of light aircraft, the comment response document to A-NPA 14-2006 is of interest. The related advanced-NPA proposed a concept for the regulation of aircraft other than complex motor-powered aircraft used in noncommercial operation.

By the closing date for public comments, the European Aviation Safety Agency (EASA) had received 8,054 comments from authorities, professional organizations, private companies and individuals from European Union member states and third countries.

After review of the options proposed and comments received from stakeholders, EASA concluded there is general support for simplifying regulations, and it plans to develop new regulatory material along these lines.

Areas of actions include:

- **Initial Airworthiness:** The Agency plans to publish an NPA to Part 21 corresponding to European light aircraft (ELA). The lighter regulatory regime would be based on a new process for ELAs. The stakeholders were nearly unanimous in accepting an upper limit

of 2,000 kg for the relaxation of the present system of Part-4th 21.

- **Continuing Airworthiness and Maintenance:** NPA2007-08 (revised Part M requirements for aircraft not used in commercial air transport and pilot/owner maintenance) was published June 25, 2007. This NPA is relative to the new level of license for maintenance engineers in general aviation. The development of requirements relative to standard modifications and repairs will be part of the ELA concept.

- **Air Operations:** The Agency plans to publish an NPA on operations regulatory material as soon as the amendment to the basic regulation now under discussion is adopted. This NPA will include proposals for regulating the operation of aircraft other than complex motor-powered aircraft used in noncommercial activities.

- **Pilot Licensing:** The Agency plans to publish an NPA on flight-crew licensing regulatory material as soon as the amendment to the basic regulation now under discussion is adopted. This NPA will include proposals for regulating the licensing of light-aircraft pilots. More specifically, the issues of medical assessment and privileges for this category of pilots will be addressed.

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

JAA: List of JAR 147-Approved Maintenance Organizations Issued

The Joint Aviation Authorities (JAA) has issued a history file (because National Aviation Authorities are responsible) containing a consolidated list of JAR 147-approved maintenance training organizations within the European Union member states. Currently, the history file lists as many as 137 companies in EU member states.

In the meantime, EASA amended its third country Part 147-approved orga-

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nization list, which lists another 21 organizations. Unfortunately, neither list provides any details about the individual company capability. Anyone looking for specific training would need to invest some considerable time in finding that information.

Therefore, the Aircraft Electronics Association will continue to collect data and provide an updated list of Part 147 capabilities of those companies.

Eurocontrol/European Commission: Channel Spacing Requirements Presented

EC 1265/2007, issued in October 2007, presents the requirement for air-ground 8.33 kHz voice channel spacing in the ICAO EUR region for the single European sky. This regulation is legally binding in its entirety and directly applicable in all EU member states when it enters into force.

Article 3 of the regulation, describing the interoperability and performance requirements, specifies from March 15, 2008, all operators shall ensure their aircraft are equipped with radio equipment with 8.33 kHz channel spacing capability in accordance with specified ICAO Annex 10, Volume II, Part 2 standards.

Air navigation service providers shall ensure by July 3, 2008, at the latest, all voice VHF assignments are converted to 8.33 kHz channel spacing for sectors with a lower level at or above FL 195.

RTCA/EUROCAE: Documents of Interest to AEA Members Issued

RTCA recently issued several new documents of interest to AEA members, including:

- DO-307, "Aircraft Design and Certification for Portable Electronic Device Tolerance." This document recommends aircraft design and certifica-

tion criteria to tolerate the operation of PEDs. These aircraft design and certification recommendations, when implemented in an aircraft design, would reduce the need for restricting the use of PEDs.

- DO-306, "Safety and Performance Standard for Air Traffic Data-Link Services in Oceanic and Remote Airspace." This document provides the operational, safety and performance requirements (SPR) for the implementation of air traffic data-link services in oceanic and remote airspace, referred to as Oceanic SPR Standard. It is intended to support the implementation of communications, navigation and surveillance/air traffic management (CNS/ATM) systems in worldwide applications.

- DO-286B, "Minimum Aviation System Performance Standards for Traffic Information Service-Broadcast." This revision to DO-286A separates automatic dependent surveillance-rebroadcast (ADS-R) from the TIS-B MASPS. The basic TIS-B services described in DO-286A remain fundamentally unchanged. The revision includes changes related to those previously made to RTCA DO-242, MASPS for automatic dependent surveillance-broadcast, and DO-289, MASPS for aircraft surveillance applications. The revision should not impact equipment previously certified using DO-260A, MOPS for 1090 MHz extended squitter (ADS-B) and TIS-B or DO-286A.

The new documents can be purchased from RTCA at www.rtca.org.

SOUTH PACIFIC News & Regulatory Updates

CASA: Civil Aviation Advisory Publication Issued in Australia

The Civil Aviation Safety Agency issued CAAP 174-1(1) regarding, among other things, the installation of

night vision goggles for use in helicopter operations.

This CAAP is intended to assist:

- Pilots, other crew members — such as aircrew members and medical personnel — and operators of helicopters using night vision imaging systems (NVIS) and night vision goggles (NVG) in certain aerial work operations.

- Individuals and organizations conducting NVIS/NVG crew member training.

- Individuals and organizations carrying out modifications and other engineering work on helicopters being used for NVIS/NVG operations.

A copy of CAAP 174-1 (1) can be downloaded at www.casa.gov.au/download/CAAPs/ops/174-1.pdf.

CASA: Drug and Alcohol Testing Program Proposed for Industry

In July 2007, the Civil Aviation Safety Agency issued a notice of proposed rulemaking, NPRM 0703SS, which proposes a drug and alcohol testing program for the aviation industry.

The objective of this proposal is twofold:

- Creating legislation to enable CASA to require certain aviation industry participants to have a drug and alcohol management plan in place for the interest of air navigation safety. The proposed regulations would allow for random alcohol and specified drug testing of personnel undertaking safety-sensitive aviation activities.

- Introduction by regulation of a drug and alcohol testing program for personnel undertaking safety-sensitive aviation activities in the Australian aviation industry, with DAMPS to be managed by industry and audited by CASA, and an independent random testing regime managed by CASA.

Personnel undertaking safety-sensitive aviation activities would include all persons, including government offi-

cers, who undertake safety-sensitive aviation activities — meaning activities directly or indirectly impacting the safety of civil air operations in Australian territory or the operation of Australian aircraft outside Australian territory.

Safety-sensitive aviation activities would include activities involving aircraft maintenance and repair, and others.

The comment period closed Aug. 27, 2007. For more information, contact Mike Higgins, drug and alcohol project manager for CASA, by e-mail at mike.higgins@casa.gov.au. □

Note: The AEA offers “Frequently Asked Questions” to foster greater understanding of the international 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.