



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.

AEA Europe Working Group Submits Report on Avionics Engineer Licensing for Light Aircraft to EASA

The AEA European Government Affairs working group has submitted its report on avionics engineer licensing for light aircraft to the Engineering and Maintenance subcommittee of the Safety Standards Consultative Committee. The report was accepted and forwarded to the European Aviation Safety Agency for consideration for rulemaking with a strong endorsement.

The rulemaking project now is identified as Task Number 66.027: "Adapt the License for Avionics Engineers to Light Aircraft."

EASA defines the problem by stating, "The Agency has reported the difficulties encountered by stakeholders dealing with avionics maintenance on light aircraft where the number of maintenance certifying staff is decreasing regularly."

Different reasons are leading to this situation; the more important issues include:

- The basic knowledge requirement and the relevant examination cover the full scope of avionics systems for large aircraft operated in all weather conditions, while the aircraft are operated and mostly equipped to fly in VFR

field of organizations dealing with light aircraft, many of these organizations are small and have difficulty supporting the cost of training of new personnel.

- When new personnel are licensed,

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flight operations. As a consequence, the students have real difficulties in passing the examination by self-study for those systems typical of larger aircraft.

- Rather than self-study, another option is attending training in a Part 147 organization; however, this involves at least two years of training. And in the

most look for employment in the airline sector.

Currently, the requirement in Appendix I of Part 66 for basic knowledge and the relevant examination to get a B2 license considers only the case of aircraft fully equipped for flying in all weather conditions. As a consequence, the level of knowledge and the exami-

nation could be better adapted in the case of aircraft not equipped or partially equipped with these systems.

The objective of the tasking is to develop simplified requirements for avionics-certifying staff dealing with light aircraft.

The AEA actively participates in this rulemaking group with the leadership of Garry Joyce, the AEA's newly elected European director, as well as the participation of Bob Wilson (ECO-GAS/BBGA), who co-chaired the original avionics engineer report, and myself.

SMS in Canada

The mandate for safety management systems is quickly approaching, and while the AEA continues to challenge the premise of these international initiatives, the association also is preparing to assist our membership if the government continues on this folly.

In late April, the AEA's Canadian regulatory team of John Carr, Barry Aylward and myself met with Transport Canada during a special meeting in Toronto to frankly and openly discuss the results of our study on the expense of implementing and routinely managing an SMS program.

While we do not support the reasoning or agree with the cost/benefit analysis published by Transport Canada, we do not want to blindly ignore the issue and leave the membership to struggle with SMS on its own. The purpose of the meeting was to facilitate the development of manuals and training to assist those who are man-

dated to implement SMS in starting their programs with the least administrative burden.

AEA Regional Meeting in Australia

As many of you know, this year's AEA South Pacific Meeting is taking place in Coolumb, Australia, to align with the Regional Aviation Association of Australia's convention.

The work on the next generation of Australian maintenance regulations continues and should be well formulated by the time of the annual South Pacific meeting in September. A full briefing of the new maintenance regulatory suite for the membership is planned during the AEA South Pacific Meeting.

In addition, the AEA has talked with the Civil Aviation Safety Authority regarding the possibility of assisting in presenting a Future Technology Road Show the week after the AEA South Pacific Meetings. Currently, the dates and locations are in development. The road show is designed to promote the technologies to the user communities, which are your customers; so, don't be surprised to receive a request to join the AEA as it travels throughout Australia.

While the agencies all have been reasonably quiet as far as introducing new regulations or guidance so far this year, the AEA will continue its work interfacing with the National Aviation Authorities regarding regulations, policy and guidance, as well as promoting avionics and AEA membership world-wide on your behalf.

UNITED STATES **News & Regulatory Updates**

Flight Standards Service Establishes Common Regional Goals

The Federal Aviation Administration has published Notice 8900.112, which establishes the FAA's Flight Standards Service fiscal year 2010 common regional goals. These goals will ensure each FAA employee understands how his or her performance plan goals map onto the broader goals in the FAA's Flight Plan.

Directly impacting AEA members, the FAA is requiring each regional division manager to ensure the certificate-holding district office that has 14 CFR Part 145 certificate management responsibilities performs an assessment in accordance with existing policy using the repair station assessment tool. The certificate-holding district office will initiate a risk management process for at least 60 percent of the repair stations with a subsystem certificate assessment score of a 1 or 2.

NTSB Recommends TAA Training for Glass Cockpit Pilots

The National Transportation Safety Board adopted a study in March that concluded single-engine airplanes equipped with glass cockpits

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had no better overall safety record than airplanes with conventional instrumentation.

The safety study, which NTSB adopted unanimously, was initiated more than a year ago to determine if light airplanes equipped with digital primary flight displays — often referred to as “glass cockpits” — were inherently safer than those equipped with conventional instruments.

According to the study, which looked at the accident rates of more than 8,000 small piston-powered airplanes manufactured between 2002 and 2006, aircraft equipped with glass cockpits had a higher fatal accident rate than similar aircraft with conventional instruments.

Because glass cockpits are complex and vary from aircraft to aircraft in function, design and failure modes, the NTSB determined that pilots are not always provided with all of the information they need — from both aircraft manufacturers and the FAA — to adequately understand the unique operational and functional details of the primary flight instruments in their airplanes.

“Training is clearly one of the key components to reducing the accident rate of light planes equipped with glass cockpits, and this study clearly demonstrates the life-and-death importance of appropriate training on these complex systems,” said Deborah A.P. Hersman, chairman of the NTSB.

“We know that while many pilots have thousands of hours of experience with conventional flight

instruments, that alone is just not enough to prepare them to safely operate airplanes equipped with these glass cockpit features,” she said.

Today, nearly all newly manufactured piston-powered light airplanes are equipped with digital primary flight displays, and the number of older airplanes being retrofitted with these systems continues to grow.

“While the technological innovations and flight management tools that glass-cockpit-equipped airplanes bring to the general aviation community should reduce the number of fatal accidents, we have not, unfortunately, seen that happen,” Hersman said.

“The data tell us that equipment-specific training will save lives. To that end, we have adopted recommendations responsive to that data — recommendations on pilot knowledge testing standards, training, simulators, documentation and service difficulty reporting so that the potential safety improvements that these systems provide can be realized by the general aviation pilot community,” she said.

Based on the study findings, the NTSB made six safety recommendations to the FAA:

- Enhance pilot knowledge and training requirements.
- Require manufacturers to provide pilots with information to better manage system failures.
- Incorporate training elements regarding electronic primary flight displays into training materials and aeronautical knowledge requirements.
- Incorporate training elements regarding electronic primary flight displays into initial and recurrent

flight proficiency requirements for pilots of small, light general aviation airplanes equipped with those systems that address variations in equipment design and operations of such displays.

- Support equipment-specific pilot training programs by developing guidance for the use of glass-cockpit simulators other than those approved by the FAA as flight training devices.

- Inform the general aviation community about the importance of reporting malfunctions or defects with electronic flight, navigation and control systems through the Service Difficulty Reporting system.

The complete safety study will be available in a few weeks on the NTSB website at www.nts.gov.

FAA Revises RVSM Policy

The FAA has published Revision No. 3 to “Element Performance Inspection Data Collection Tool 5.1.9, RVSM Authorization Revision,” dated March 3, 2010.

This element performance inspection (EPI) ensures reduced vertical separation minimums (RVSM) operations are conducted safely using aircraft equipped, maintained and capable of operating in RVSM airspace.

The objective of this EPI is to determine:

- The effectiveness of the operator’s procedures in meeting the desired output of the process.
- If the operator follows its procedures, controls, process measurements and interfaces.
- If there were any changes in the personnel identified by the operator as having responsibility and/or authority for the RVSM process.

FREQUENTLY ASKED QUESTIONS

United States

Reporting Malfunctions or Defects

The following information is from the Federal Aviation Regulations and FAA Advisory Circular 149-9 and 20-109.

QUESTION:

As part of its glass-cockpit report, the National Transportation Safety Board said Part 91 aircraft operations do not have a Service Difficulty Reporting requirement similar to airlines; however, doesn't a repair station have a requirement to report malfunctions or defects regardless of the aircraft operations?

ANSWER:

Yes, 14 CFR 145.221(a) requires a repair station to report any serious failure, malfunction or defect of an article to the FAA on either a Malfunction or Defect Report or a Service Difficulty Report.

The NTSB was half right in its comments and recommendations: The Service Difficulty Report is a requirement for a certificate holder operating under 14

CFR Parts 121, 125 or 135. However, for customers other than air carriers, a repair station is required to submit similar service data on a Malfunction or Defect Report.

Advisory Circular 20-109 describes the Service Difficulty Program as it applies to general aviation activities, and it states:

- When a system component or part of an aircraft (powerplants, propellers or appliances) functions badly or fails to operate in the normal or usual manner, it has malfunctioned and should be reported.
- If a system, component or part has a flaw or imperfection that impairs function or may impair future function, it is defective and should be reported.
- While at first sight it appears this will generate numerous insignificant reports, the Service Difficulty Program is designed to detect trends. Any report can be very constructive in evaluating design or maintenance reliability.

For avionics systems, most premature defects and repairs are covered under a manufacturer's warranty. Any repair covered under a manufacturer's warranty would require either a Malfunction or Defect Report (FAA Forms 8010-4) or a Service Difficulty Report (FAA Form 8070-1) for air carrier customers.

CANADA

News & Regulatory Updates

Canada Has the Second Largest Civil Aircraft Fleet in the Western World

Transport Canada's Maintenance and Manufacturing Branch provides service to a varied constituency. With the second largest fleet of civil aircraft in the Western world, Canada's maintenance organizations assist in ensuring all aeronautical products built, op-

erated or maintained under Canadian control conform to national and international airworthiness standards.

Ensuring these standards are met involves a vast network of organizations and personnel, including:

- 1,001 approved maintenance organizations (AMOs)
- 13,332 aircraft maintenance engineers (AMEs)
- 60 domestic and international aircraft maintenance approved training organizations (ATOs)
- 226 authorized aeronautical parts distributors.

In addition, the Maintenance and Manufacturing Branch provides services to numerous aerospace manufacturing companies.

There are 112 aeronautical product manufacturers in Canada, including aircraft components, avionics, engines and complete aircraft construction.

For more information, visit Transport Canada Civil Aviation's website at www.tc.gc.ca/civilaviation/maintenance/menu.htm.

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EUROPE News & Regulatory Updates

EASA Changes Form 1, Omitting Block 9 Confusion

The latest amendment to EC2042/2003, called EC127/2010, includes a long-awaited change to the European Aviation Safety Agency Form 1, called Issue 2. The changes initially identified and issued with NPA2007-13 consisted mainly of the omission of Block 9 Eligibility, which often caused confusion in the past.

The changes also introduced some renumbering because of the removal Block 9; however, the remainder of the form stayed virtually unchanged. In addition to the form, the completion instruction has been amended to provide updated instruction for the completing organization. Notably, a number of different status definitions in Block 11 (ex Block 12) have been deleted. For example, the conditions called “Retreated” (often used for tires) and “Reassembled” have been removed as possible entries in this block.

A number of small rewordings for necessary entries into Block 12 (ex Block 13) have been made. For example, the wording “life-limited parts history” has been changed to “life-limited parts status.” The new format currently is only applicable to Part 145 and Part M. The equivalent Part 21 (production) has not yet been issued.

The new EASA Form 1 must be used from Sept. 28, 2010, at the latest. The new contents have not yet been introduced in the related FAA Order 8130.21, which regulates the equivalent FAA Form 8130-3.

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

FREQUENTLY ASKED QUESTIONS International

Supplemental Type Certificates

The following information is from the European Aviation Safety Agency's FAQs.

QUESTION:

What are grandfathered approvals?

ANSWER:

Any supplemental type certificate approved or validated by any European member state before the establishment of EASA is deemed to be approved under Regulation 1702/2003 Article 2(a) from 2003.

This covers all previous approvals, from minor changes to major changes, STCs and complete aircraft, both certifications and validations with the exception of products of the former Soviet Union. It also covers the flight conditions approved for aircraft operating under national permits to fly issued before March 28, 2007.

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.