INTERNATIONAL NEWS AND REGULATORY UPDATES

FROM RIC PERI
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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.*

BY FRANZ REDAK
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What Mandates Are We Heading for in Europe?

This summer, Eurocontrol issued its Annual Report 2008 on aviation safety in Europe. Eurocontrol is an intergovernmental organization made up of 38 member states and the European community. Its primary objective is the development of a seamless, pan-European air traffic management (ATM) system.

According to the safety report, 2008 was the second consecutive year during which more than 10 million flights took place in the European airspace, with a top figure of 34,476 managed flights on a single day in June of last year. Considering the economic slowdown in the third and fourth quarters, this still represents a slight 0.5 percent traffic growth over 2007.

The safety report concentrates on a number of different initiatives and programs that increase the efficiency of the ATM system to cope with the challenges of traffic increases today and in the future. The main activities are in the areas of safety, capacity, cost-efficiency, environmental sustainability, civil/military coordination, implementation of the Single European Sky (SES) and its associated research and development program: SESAR.

Nearly parallel to the Eurocontrol report, the European Aviation Safety Agency (EASA) issued its latest report on aviation safety for 2008. This report, based on accident and incident reports, was analyzed with regard to the overall goal of improving safety in aviation.

Do these two reports impact AEA members? They do.

Although both reports present the data in quite different ways, they both indicate where potential safety improvements can be achieved. To a certain extent, they also indicate where individual bodies are beginning specific safety efforts and where we can expect mandates being issued.

I want to highlight a few topics the individual reports addressed. One of the interesting ones is how Eurocontrol is handling the new group of very light jets (VLJs). While current ops and Eurocontrol requirements do not mandate airborne collision alert systems (ACAS), or traffic alert and collision avoidance systems (TCAS II), on such aircraft, the new reports states VLJs will have a potential impact on capacity and safety in the European airspace. Once the Safety Level Assessment Report for these aircraft is available — which is expected this month — a possible mandate could be issued. Some OEMs are informed about this and have begun to equip their European-registered VLJs with ACAS.

Another area of concern and activity within Eurocontrol is the current performance and possible improvement of existing and used systems. Following extensive work, it has issued a revised

minimum operational performance standard (MOPS) for ACAS (TCAS II) systems. The improvement will be known as the ACAS/TCAS II Version 7.1. The new MOPS should improve the ACAS system in two safety issues: The failure of TCAS to reverse the sense of RAs when such actions are required to resolve a collision threat; and the frequent instances of unintentional maneuvers in the wrong direction specified by an RA.

The related NPA to amend ETSO C119c has been issued. Related mandates seem to be imminent once the ETSO/TSO is issued.

Another initiative is to mandate automatic dependent surveillance–broadcast (ADS-B), which should support the Single European Sky concept currently introduced. This system would provide additional, accurate and cost-effective surveillance capacity in areas where such service was hitherto not available.

Various other measures have been identified to improve airspace capacity. One of them is the further extension of the use of 8.33 kHz frequency spacing for the airspace below FL-195. With the full implementation of this frequency spacing above FL-195 being close to completion, the next step now is nearing implementation in 2013.

The mandate stating the need for a digital data-link system as part of the Link 2000+ project was issued earlier this year as EC No. 29/2009. This mandate, which is applicable for aircraft operating above FL-285, will be implemented in January 2011 for forward-fit aircraft and in February 2015 for retro-fitted aircraft, and includes aircraft of all weight classes, such as VLJs. This should have an impact on requests for the installation of data-link units and associated systems, such as flight management systems and printers.

During recent years, Eurocontrol has invested quite a bit in the implementation of Mode S enhanced surveillance (EHS), which has been introduced in the core European area. Eurocontrol's intention is to continue expanding into several other European states. This effort would bring the remaining aircraft not yet equipped with EHS into the system.

While Eurocontrol applied the air traffic management view in its safety report, EASA analyzed the technical, handling and aircraft operating aspects of accidents and incidents during 2008 in its report. Analyzed was data of aero-

planes and helicopters used in commercial, non-commercial and aerial work operation. The graphs presented in the report provide fatalities versus incident/accident causes.

Of interest to AEA members are the highest fatalities related to incidents and accidents traced back to such reasons as controlled flight into terrain (CFIT), low-altitude operation, windshear or thunderstorms, runway excursions, air proximity warnings, TCAS/ACAS alerts, loss of separation, near midair collisions, midair collisions and communications navigation surveillance. All of these could be avoided by means of equipment or systems installed on such affected aircraft types.

CFIT accidents accounted for the highest fatality rate in this group throughout all aircraft groups, followed by low-altitude operation (helicopter, general aviation and aerial work). Both accident

rates could be reduced using advanced systems such as terrain awareness and warning systems (TAWS), which currently are mandated for large aircraft used in commercial operation, or radio altimeter systems with voice callouts as mandated for commercial-operated helicopters.

RTCA, in cooperation with the European Organization for Civil Aviation Equipment, has developed a revised MOPS for H-TAWS to further reduce accident rates for helicopters, and TAWS might be implemented for VLJs once the safety case shows a positive

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safety benefit. For both the H-TAWS and the extension of TAWS to VLJs, no implementation date has been defined.

For some of your customers, the runway awareness advisory system (RAAS) could be a voluntarily applied system to reduce the risk of runway incursion and excursion.

Currently, a number of other systems related to satellite-based required navigation performance (RNP) operations/GPS-based approaches, including vertical guidance requirements, are being drafted and will be issued as mandates for certain operational types. These GPS-based systems will create a huge demand on installation capacity once the European GPS system Galileo becomes operational sometime after 2013.

Your shop should be prepared for the time ahead.

UNITED STATES
News & Regulatory Updates

AEA Needs Your Opinion Regarding FAA's SMS Proposal

In July, the FAA published an advanced notice of proposed rulemaking to solicit input regarding its future proposal for safety management systems (SMS).

The FAA is soliciting public comments regarding a potential rulemaking requiring repair stations, air carriers and manufacturers to develop and implement SMS. According to the FAA, a safety management system is a structured, risk-based approach to managing safety.

The International Civil Aviation Organization (ICAO) has defined SMS as a "systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures."

An SMS would provide a set of decision-making processes and procedures, which AEA members would use to plan, organize, direct and control their normal, day-to-day business processes.

According to the agency, these FAA-"approved" decision-making processes would enhance safety and ensure compliance with regulatory standards.

An SMS requires a proactive approach to discovering and correcting problems before there are safety consequences.

An SMS also includes processes that seek to identify potential organizational breakdowns and necessary process improvements, allowing management to address a safety issue before a noncompliant or unsafe condition results.

Using an SMS, however, is not a substitute for compliance with FAA regulations or FAA oversight activities.

SMS will have a major impact on the future of your repair stations; make sure you have all the facts before sending comments to the FAA. The AEA recently offered town-hall style discussions about the future of this program at its AEA Regional Meetings in Tampa, Fla., and Kansas City, Mo.

The FAA's SMS proposal can be viewed on the AEA's website at www.aea.net.

FAA Issues Guidance to ASIs for Parts Marking

The FAA has issued Notice N 8900.74, providing guidance to aviation safety inspectors (maintenance and avionics) for advising operators and maintenance providers on the marking of in-service articles.

This notice contains invaluable information about parts marking and the responsibility of maintainers when approving a part for return-to-service.

From N 8900.74: "While identification data for a component may be part of the aircraft's type design, the fact that it may be missing or illegible does not mean that the aircraft is not airworthy when the article is continued in-service or installed. National Transportation Safety Board case law and FAA legal interpretations have concluded that not every minor deviation (such as dents, scratches, pinholes of corrosion or missing screws), no matter how minor or where located on the aircraft, dictates the conclusion that the aircraft's design, construction or performance has been impaired by the defect to a degree that the aircraft no longer conforms to its type certificate.

"Part marking is not essential for determining the continued airworthiness of an in-service article, provided the operator and/or its maintenance provider can determine that it conforms to its approved design and is in condition for safe operation.

"When identification data is no longer visible, the operator or maintenance provider will need to determine that the part was produced in accordance with Part 21, and may need to investigate further to determine the article's identity and airworthiness."

Frequently, airworthiness can be established by other means, including, but not limited to:

• Visual and other kinds of inspections.
• Operational or functional checks.
• Reference to an illustrated parts catalog and/or component maintenance manual.
• Knowledge that the article received an appropriate incoming inspection and remains within the control of the same operator or maintenance provider.

This FAA notice can be viewed on the FAA's Flight Standards Information Management System at http://fsims.faa.gov.

FAA Issues Notice Regarding Improper Maintenance/Alteration of Parts for ASIs

The FAA has issued Notice N 8900.85 to provide guidance for aviation safety inspectors (maintenance and avionics) in determining appropriate action when investigating cases of improper maintenance/alteration of aeronautical parts.

This FAA notice can be viewed on the FAA's Flight Standards Information Management System at http://fsims.faa.gov.

FAA Makes Numerous Changes to Field Approval Guidance

In July, the FAA published Change 71 to FAA Order 8900.1, which addresses field approvals. FAA Order 8900.1, Volume 4, Chapter 9, provides FAA inspectors guidance on performing selected field approvals. Change 71 made numerous changes to this document.

This FAA order can be viewed on the FAA's Flight Standards Information Management System at http://fsims.faa.gov. A link also is available on the AEA's website at www.aea.net.

FREQUENTLY ASKED QUESTIONS
United States

Repair Station Manual Revisions

The following information is from FAA Order 8900.1, Volume 6, Chapter 9.

QUESTION:

My inspector insists "he" must approve any revision to my repair station manual before I can implement the change. I thought this was changed in 2001,with the rewrite of Part 145. Can I change my repair station manual without FAA approval?

ANSWER:

Yes, maybe. Your question raises two issues: FAA "acceptance" of the repair station manual and your procedures for revising your manual.

Federal Aviation Regulations 14 CFR Section 145.207 for the repair station manual and Section 145.211 for the quality control system require the repair station to prepare and follow a repair station manual and a quality control system that is "acceptable" to the FAA.

The differences between "acceptable to the FAA" and "approved by the Administrator" are significant.

Advisory Circular AC 145-9, "Guide for Developing and Evaluating Repair Station and Quality Control Manuals," states: "Data is acceptable when it meets the requirements of the applicable regulations."

In developing procedures for revisions to your manuals, the AC states the repair station manual and the quality control manual must contain procedures for revising the manual(s) and notifying the CHDO of revisions.

A note also is added to this AC, which states: "The regulations do not require FAA review and acceptance of revisions before implementation, provided the repair station follows the revision procedures in its manual. The repair station should have a procedure in its manual to recall revisions if the FAA finds a revision unacceptable."

This is repeated in the FAA's instructions to its inspector workforce in FAA Order 8900.1, with regards to repair station manual revisions, which again states, "Federal regulations do not require the FAA to review and accept revisions before implementation, provided the repair station follows the revision procedures in its manual. The repair station should have a procedure in its manual to recall revisions if the FAA finds a revision unacceptable."

Some inspectors will claim they have to "accept" the repair station manual revisions. This is not correct. FAA Order 8900.1, Volume 3, Chapter 1, states: "Proposals, submissions or requests not requiring specific FAA approval but required to be submitted to the FAA are items that are presented for acceptance. Acceptance of an operator's proposal may be accomplished by various means, including a letter, verbal acceptance or by taking no action, which indicates there is no FAA objection to the proposal."

So, if your inspector takes no action (regardless of his or her reasons), your proposal is "accepted."

Now, to the second part of the answer: It depends on what your repair station manual revision process requires. If you declared you would not implement any revision changes until the revision was reviewed by, accepted by and returned to you by your inspector, this is what you must do. Regardless of what the minimum standard of acceptable might be, you must follow your revision procedures.

Transport Canada SMS Information Session Set for Next Month

Transport Canada Civil Aviation's next safety management systems information session will take place from Nov. 25-26, at the Vancouver Marriott Pinnacle Downtown in Vancouver, British Columbia.

The intent of this two-day session is to provide information on the implementation of TCCA's safety management systems (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.
• An opportunity to exchange information and best practices.

The target audience for this session includes airport operators, approved maintenance organizations, air navigation service providers, air operators and air traffic services organizations. Individuals responsible for implementing SMS are encouraged to attend.

With TCCA now committed to implementation of SMS for 573 AMOs commencing February 2010, managers of AEA member AMOs would benefit from attending this SMS information session.

For more information, visit http://guest.cvent.com/EVENTS/Info/Summary.aspx?e=b3518b2a-ab75-4168-a8bc-83767e82fc38.

FREQUENTLY ASKED QUESTIONS
Canada

Transfer of Canadian STC to U.S. Holder

The following information is from TCCA's website.

QUESTION:

What are my responsibilities as a supplemental type certificate (STC) holder if I want to transfer my Canadian STC to a U.S. holder?

ANSWER:

When Transport Canada issues an STC to a Canadian holder, it does so as the state of design. When transferring a Canadian certificate to a foreign holder, it actually is completing two transfers:

1. A transfer of all of the state of design responsibilities to another airworthiness authority.

2. A transfer of all of the privileges and responsibilities of the STC holder to a new holder. This means, as an STC holder, you cannot just sign the back of the certificate and hand it to a new holder. To transfer a certificate, the current holder and the intended holder must both comply with the requirements of Section 513.25 of the Canadian Aviation Regulations and the airworthiness manual.

No transfer is to be initiated without the involvement of Transport Canada and the foreign airworthiness authority that will become the state of design because a significant part of the transfer involves activities only the foreign airworthiness authority can complete prior to accepting the transfer — if they accept the transfer.

Transport Canada has a Bilateral Aviation Safety Agreement and the corresponding implementation procedures for airworthiness with the United States, which must be followed; therefore, the first step is for the Canadian STC holder to contact the nearest Transport Canada regional or district office. Then, the office will contact the FAA, and both authorities will follow the procedures set out in this agreement.

For more information, visit the following websites and refer to Staff Instruction SI No. 500-018, "Certificate Transfers." The responsibilities for transfer can be found under Section V, Paragraph 5.4 of the BASA IPA.

• www.tc.gc.ca/CivilAviation/certification/Int/TA/usa2008imp/menu.htm

• www.tc.gc.ca/civilaviation/certification/guidance/500/500-018.htm

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.

EUROPE
News & Regulatory Updates

EASA Issues Its Annual Safety Review for 2008

The European Aviation Safety Agency (EASA) has issued its Annual Safety Review 2008. The report, which details information about accidents in Europe, came to the following conclusions:

• While the fatal accidents with airplanes operated in commercial air transport in EASA member states (27, plus Switzerland, Liechtenstein, Norway and Iceland) remained at the level of 2007 (three), only 5.5 percent of all fatal accidents worldwide occurred with airplanes registered in a member state.

• The fatal accidents rate of commercial air transport helicopters and aerial work, as well as general aviation airplanes and helicopters, remained relatively stable.

• Light aircraft data also was collected. The related accident rate of these type of aircraft (mass below 2250 kg) was below the figures of 2006 and 2007; although, the data received was not complete.

The report can be downloaded from the EASA website at www.easa.eu.

In other news, EASA is hosting its EASA Rotorcraft Symposium from Dec. 2-3. More information can be found on its website.

EUROCAE/RTCA Issues Changes to MOPS for TCAS

EUROCAE/RTCA has issued the following changes:

• Change 1 to DO-300, "Minimum Operational Performance Standards (MOPS) for Traffic and Collision Avoidance System II (TCAS II) Hybrid Surveillance." This change corrects shortcomings in the test procedures and highlights the DO-185B requirements on how a DO-300 compliant TCAS II system should broadcast its hybrid surveillance capability.

• Change 1 to DO-185B, "Minimum Operational Performance Standards for Traffic Alert and Collision Avoidance System II (TCAS II)." This change specifies changes to the TCAS II requirements. ❑