



# The View from Washington

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**T**his month's View from Washington originates in Geneva, Switzerland and the Association's annual European Regional Meeting. I will begin by looking at some of our international activities in Europe followed by a general discussion of repair station security and the anticipated regulations.

This year, the regional meeting was held immediately before the European Business Aircraft Conference and Exhibition (EBACE). EBACE is a miniature version of NBAA's annual meeting held in the United States. And as such, EBACE brought a number of business aircraft equipment, avionics, and maintenance organizations to Geneva's convention center, Palexpo.

There were two significant issues raised during the European meeting: the status of EASA and its regulations, and EUROCONTROL and the avionics equipment requirements.

The European Aviation Safety Agency (EASA) was certainly a top issue at the European Regional Meeting. For those who haven't followed EASA, EASA's missions are to contribute to maintain a high uniform level of aviation safety and environmental protection in European civil aviation; to assist the European Commission in its legislative and regulatory tasks through the provision of technical expertise, and to deliver certificates for aeronautical products and their components as well as approvals for organizations involved in their design, production and maintenance.

In the future EASA is looking to extend its scope of competencies to

cover air operations and flight crew licensing.

To bring everyone up to date on the activities of EASA: on July 15, 2002, the European Parliament and Council passed Regulation (EC) 1592/2002 which resulted in the creation of the European Aviation Safety Agency (EASA). Patrick Goudou was selected as the executive director in September 2003. On January 1, 2004, Dr. Norbert Lohl was selected as the certification director and Claude Probst as rulemaking director. On February 1, 2004, Markku Junkkari began his duties as the administrative director.

EASA is currently supported by a staff of 40 with 100 expected by the end of 2004, growing to 250 by the end 2005. Currently operating from Brussels, Belgium, their permanent headquarters will be located in Cologne, Germany. They should be in their permanent headquarters by year's end.

The Commission Regulation (EC) 1702/2003, which was passed on September 28, 2003, made EASA operational for certification of aircrafts, engines, parts and appliances.

On November 28, 2003, EASA became operational for maintenance.

While EASA is operational for certification and maintenance, most of the day-to-day operational issues that the aviation industry faces still reside with the local National Aviation Authority (NAA). The rules and regulations reside with EASA, and the final signature for all certifications comes from EASA. However, the implementation of the rules and regu-

lations and the processing of certification paperwork reside at the local NAA.

From the EUROCONTROL side, AEA was graced with the presence of John Law, the ACAS & A/Mode S program manager for Eurocontrol. Law provided a stunning review of ACAS II / TCAS II overview including upcoming requirements, 8.33 kHz Vertical Expansion, and a briefing on the Mode-S Transponder program. The session generated numerous questions that Law was able to answer either during the session or by making a few quick phone calls by the end of the day. A link to the avionics equipment timeline can be found on AEA's member's only website, Resource One.

## Security Issues

Another topic from the regional meeting was the rumors about a new U.S. foreign repair station security regulation. I also recently received an e-mail from an AEA member located in the South Pacific questioning the rumor that was being circulated by AECMA, the European Association of Aerospace Industries, regarding the upcoming security requirements for foreign repair stations. The rumor focused on what was believed to be a pending law.

The rumor is flawed in two important areas; first, the law was finalized late last year and signed by President Bush on December 12, 2003; second while the law specifies the minimum criteria that the regulations must meet, the regulations themselves have not

*Continued on page 20*

# Frequently Asked Questions

## TOPIC: Air Carriers altimeter system and altitude reporting equipment test and inspection.

### QUESTION:

Are air carriers excluded from the altimeter system and altitude reporting equipment test and inspection requirements of Title 14 Code of Federal Regulations (14 CFR) section 91.411?

### ANSWER:

The applicability portion of 14 CFR section 91.401 excludes Part 121 air carriers and part 135 air carriers having a section 135.411(a)(2) maintenance program from all of the requirements of section 91.411, and sections 91.405, 91.409, 91.417, and 91.419.

Analysis: Firstly, it is clear that 14 CFR section 91.401 excludes air carrier aircraft maintained under a continuous airworthiness maintenance program as provided in 14 CFR Part 121 or section 135.411(a)(2) from the particular and detailed altimeter system and altitude reporting equipment test and inspection requirements of section 91.411. For these air carrier aircraft, altimeter system and altitude reporting equipment tests and inspections must be accomplished in accordance with the requirements of the air carrier's maintenance program and maintenance manual. It should also be noted that a review of the regulatory basis for section 91.411 does not reveal additional air carrier regulatory requirements, implied or otherwise, for altimeter system and altitude reporting equipment tests and inspections equivalent to part 43, appendix E.

As with most of these types of issues, background information is most helpful in understanding the reasoning for regulatory differences, exclusions, deviations, and the like.

Title 49 United States Code (49 USC) section 44701 is the basis for most 14 CFR regulations pertinent to the operations of aircraft in air commerce and air transportation. Section 44701, in part, obliges the Administrator to promote safe flight of civil aircraft in air commerce by prescribing regulations and minimum standards in the interest of safety for inspecting, servicing and overhauling aircraft, aircraft engines, propellers and appliances. In addition, the Administra-

tor, when prescribing a regulation or standard under section 44701 or any of 49 USC sections 44702-44716, is required to consider (1) the duty of an air carrier to provide service with the highest possible degree of safety in the public interest; and (2) differences between air transportation and other air commerce; and to (3) classify a regulation or standard appropriate to the differences between air transportation and other air commerce.

The regulatory difference between the altimeter system and altitude reporting equipment test and inspection requirements for air transportation (air carrier operations) and for other air commerce (general aviation/part 91 operations) is a prime example of the implementation of these statutory requirements. An additional, similar example is the general aviation requirement to use an inspection program and the manufacturer's maintenance manual to have their aircraft maintained in an airworthy condition, while air carriers are required to maintain their aircraft in accordance with a comprehensive maintenance program of its own design and its own air carrier maintenance manual.

Air carrier scheduled maintenance/inspection requirements, including altimeter system and altitude reporting equipment tests and inspections, are established, initially, through evaluations of the aircraft manufacturer's recommendations, which may be modified in consideration of the air carrier's particular operating context and maintenance policy.

These air carrier initial scheduled maintenance/inspection requirements are normally derived from a failure mode and effects analysis (FMEA) of the item or system, and are, necessarily, based on information derived only from a knowledge of the equipment design characteristics and the proposed operating environment.

However, once an aircraft begins its service life, optimum scheduled maintenance/inspection requirements are obtained from service experience, i.e., the air carrier's system of continuous surveillance, investigations, data collection and analysis, corrective action, and monitoring/feedback. In some cases, the results

of the FMEA will indicate that no scheduled maintenance is required. This is normally the result of failures being readily evident to the flightcrew as well as several levels of design redundancy. In a general, non-aircraft specific sense, this appears to be the case with altimeter system and altitude reporting equipment installed in aircraft used in air transportation. Transport category aircraft normally have considerable design redundancy as they are usually equipped with at least two, and, as many as four altimeters. Conversely, general aviation aircraft may have no altimeter system redundancy as they are usually equipped with only one altimeter. Notwithstanding the 14 CFR section 91.411 regulatory requirement, a FMEA, in the general aviation instance, would require some sort of maintenance action designed to prevent an in-service failure of the altimeter. In addition, the air carrier's continuous cycle of surveillance, investigations, data collection and analysis, corrective action, and monitoring/feedback ensures the maintenance requirements remain at the most optimum level for operations with the highest possible degree of safety.

In summary, the language and architecture of the regulations ensure a higher level of safety for operations in air transportation. Consistent with the preceding discussion, air carriers may provide the higher level of safety through the introduction of design features, such as redundancy and monitoring systems, that ensure the in-service loss of function of any aircraft system is evident to the flightcrew and is extremely improbable. Some of these design features, because of particular non-safety related failure modes and failure effects, may result in minimal or no scheduled maintenance being required.

*Note: AEA offers these Frequently Asked Questions (FAQs) in order to foster greater understanding of the Federal Aviation Regulations and the rules that govern our industry. AEA strives to make them as accurate as possible at the time they are written, but rules change so you should verify any information you receive from an AEA FAQ before you rely on it. AEA DISCLAIMS ANY WARRANTY FOR THE ACCURACY OF THE INFORMATION PROVIDED. This information is NOT meant to serve as legal advice – if you have particular legal questions, then these should be directed to an attorney.*

## REGULATORY UPDATE

*Continued from page 18*

been drafted yet; and third, the security standards that are being developed do not discriminate between FAA certificated repair stations located within the United States and those located outside of the United States. However, the specific audit portion of the law is limited to FAA certificated repair stations located outside of the United States, while audits of domestic repair stations will be included in routine FAA/TSA audits of aviation facilities.

AEA is working with the Transportation Security Administration (TSA) to ensure the repair station security regulations are appropriate to the size and organization of the repair station and the demonstrated security risk to the air transportation system that the repair station can affect.

Public Law No: 108-176 known as Vision 100—Century of Aviation Reauthorization Act, required that before March 11, 2004 the Administrator of the Federal Aviation Administration had to transmit to the Senate Committee on Commerce,

Science and Transportation and the House of Representatives Committee on Transportation and Infrastructure a plan containing an implementation schedule to strengthen oversight of domestic and foreign repair stations and ensure that foreign repair stations that are certified by the Administrator under part 145 of title 14, Code of Federal Regulations, are subject to an equivalent level of safety, oversight and quality control as those located in the United States.

Congress required that not later than August 6, 2004, the Under Secretary for Border and Transportation Security of the Department of Homeland Security (TSA), in consultation with the Administrator of the Federal Aviation Administration (FAA), shall develop and issue final regulations to ensure the security of foreign and domestic aircraft repair stations. This timeline for the development of a regulation is extremely aggressive and AEA does not expect TSA to be able to meet this deadline.

While it is not possible to predict when TSA will complete the rule, there are some fixed hurdles they must cross. Once the draft regulation has been completed it must pass review at the department level; this can take from 30 to 90 days. This is followed by an external review by the Office of Management and Budget (OMB); OMB requires an additional 90 days. Then the proposed regulation is published for public review and comment; a 90 day review is expected. Once TSA receives all of the comments, they must amend the proposal to address the comments, then route the final version through the Department and OMB for final reviews prior to final publication.

Within 18 months after TSA issues the repair station security regulations, TSA, in consultation with the FAA, must complete a security review and audit of foreign repair stations that are

certified by the FAA under part 145 of title 14, Code of Federal Regulations, and that work on air carrier aircraft and components. This audit is intended to ensure the security of maintenance and repair work conducted on air carrier aircraft and components at foreign repair stations. (Under the FARs, air carrier aircraft include all aircraft used in either scheduled or on-demand service.)

The law further requires TSA to require a foreign repair station to address the security issues and vulnerabilities identified in the security audit within 90 days of providing notice to the repair station of the security issues and vulnerabilities identified and shall notify the Administrator that a deficiency was identified in the security audit.

The repair station will have 90 days to correct the deficiencies.

If the security audits are not completed within 18 months, the FAA shall be barred from certifying any [new] foreign repair station until such audits are completed for existing stations.

In trying to anticipate the new regulations, here are some basic thoughts that might help prepare the repair stations for the upcoming regulations.

First, review the recently released TSA Information Publication (IP) titled, "Security Guidelines for General Aviation Airports." This Information Publication contains non-regulatory standards and recommended guidelines for general aviation airport security.

While this guideline does not directly apply to repair stations, it does provide some insight into TSA's philosophy of security and provides some "best practices" that may have some applicability to the repair station environment.

There are some basic threads that run through the TSA guidance. Know your facility, know your customers,

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and know your employees and control access to everyone else. The degree of each control is based on the results of analyzing the security risk that your operation poses taking into account your proximity to major metropolitan areas or sensitive-high profile locations; the carrying capacity of the aircraft you work on; the length of your runways; etc. Again, TSA Information Publication (IP) titled, "Security Guidelines for General Aviation Airports" is a good tool to help you

look at your facility from a security perspective.

Second, from the international perspective, look to the International Civil Aviation Organization (ICAO). ICAO has published security recommendations in Annex 14 for aerodromes. These standards provide minimum standards for facility security that AEA reasonably expects to be included in the new TSA standards.

These new security standards are expected to be published as draft doc-

uments later this summer when TSA will be soliciting public comments. AEA member companies are encouraged to look for an AEA Regulatory Update when the draft regulation is published and to direct your comments directly to TSA and also to AEA for inclusion in our comments. It is important that ALL affected repair stations review the proposal, (when published) and ensure that it is appropriate to your individual operation.

## Regulatory Update

### United States

#### **The Federal Aviation Administration (FAA) proposes to amend the rule affecting Antidrug and Alcohol Misuse Prevention Programs for Personnel Engaged in Specified Aviation Activities.**

In an NPRM (Notice 02-04), published on February 28, 2002, the FAA proposed to make it clear that each person who performs a safety-sensitive function directly or by contract (including by subcontract at any tier) for an employer is subject to drug and alcohol testing. The comment period closed on July 29, 2002. Several commenters (including AEA) stated that the change was more than clarifying and would have a severe economic impact.

The FAA is proposing the same language again in this Supplemental Notice of Proposed Rulemaking (SNPRM).

The FAA is reopening the issue for public comment before making a final determination and has prepared an initial regulatory evaluation on this issue.

Comments are due before August 16, 2004.

#### **The FAA proposes Order 8110.ICA**

This order shows Aircraft/Engine Certification Office (ACO/ECO) and Aircraft Evaluation Group (AEG) staffs how to review and accept Instructions for Continued Airworthiness (ICA). The FAA also includes their responsibilities for these tasks. This order supplements Title 14 of the Code of Federal Regulations (CFR) § 21.50(b) and the appendices of §§ 23.1529, 25.1529, 27.1529, 29.1529, 31.82, 33.4, and 35.4, which from now on we call "the applicable regulations." The Order includes the requirement for ICAs, the purpose of ICAs and the format for ICAs and the acceptable types of data.

Comments were due no later than: June 21, 2004.

#### **The FAA proposes to amend its regulations governing maintenance, preventive maintenance, and alterations on U.S.-registered aircraft located in Canada.**

The FAA has revised the Bilateral Aviation Agreement between the United States and Canada to a Bilateral Aviation Safety Agreement (BASA), and plans to include mainte-

nance implementation procedures (MIP) with that BASA. Certain requirements found in Part 43.17, as presently written, provide constraints that are not in accordance with standards for other MIPs. This rulemaking action would remove those constraints and provide flexibility to implement a MIP.

14 CFR 43.17 contains constraints that inhibit negotiating Maintenance Implementation Procedures (MIP) under the current Bilateral Aviation Safety Agreement (BASA). The BASA/MIP would expand the allowable maintenance capabilities in the United States and Canada. The proposed changes would allow work in Canada, with respect to U.S.—registered aircraft, to be more in line with the maintenance allowed by other FAA-certificated domestic and foreign repair stations.

As written, Section 43.17 requires aeronautical products for use in maintaining or altering U.S.-registered aircraft to be transported to Canada from the United States and that the work be performed in accordance with §§ 43.13, 43.15, and 43.16 and recorded

*Continued on following page*

## REGULATORY UPDATE

*Continued from page 21*

in accordance with § 43.2 (a), 43.9, and 43.11.

The FAA proposes to revise § 43.17 to allow shipment of parts direct to Canada from their location. (The parts would not have to be transported first to the United States and then to Canada.) and to remove references to specific regulations and replace it with a reference to “an agreement between the United States and Canada.” The effect of this change would be to facilitate agreements between the United States and Canada.

Comments must be received before August 9, 2004.

### **Policy Statement on Process for Developing SFAR 88-related Instructions for Maintenance and Inspection of Fuel Tank Systems**

This policy statement is intended to provide standardized guidance regarding compliance with the requirements in Special Federal Aviation Regulation Number 88 (SFAR 88) for the development of instructions for maintenance and inspection of fuel tank systems. SFAR 88 is applicable to large transport airplanes.

The term “large transport airplanes” refers to that group of airplanes that consists of turbine-powered transport category airplanes, provided that the type certificate for the airplane was issued after January 1, 1958, and that the airplane has either a maximum type certificated passenger capacity of 30 or more or a maximum payload capacity of 7,500 pounds or more resulting from the original certification of the airplane.

Paragraph 2(a) of SFAR 88 requires certain design approval holders of Type Certificates (TCs) and Supplemental Type Certificates (STCs) of large transport airplanes to conduct a safety review of the fuel tank systems. The purpose of the safety review is to iden-

tify design features that may result in development of ignition sources in the fuel tank systems. Corrective action in the form of design changes, operational procedures, or maintenance may become mandatory, if it is determined to be necessary to eliminate the identified ignition sources.

This policy statement relates to Paragraphs 2(b) and 2(c)(2) of SFAR 88 which require that—based upon the safety review—the design approval holders develop instructions for maintenance and inspection of the fuel tank systems in order to maintain those design features of the fuel tank system that preclude the existence or the development of an ignition source.

The FAA intends that operators use those instructions to propose any changes in their maintenance programs needed to maintain the ignition-prevention features of the fuel tank system for the operational life of the airplane. These proposed changes are to be reviewed and approved by the operator’s principal inspector.

Comments are due before: June 28, 2004.

### **The FAA proposes Technical Standard Order (TSO)-C166, Extended Squitter Automatic Dependent Surveillance--Broadcast (ADS-B) and Traffic Information Service--Broadcast (TIS-B) Equipment Operating on the Radio Frequency of 1090 Megahertz (MHz)**

The FAA has announced the re-issuance of the proposed Technical Standard Order (TSO)-C166, Extended Squitter Automatic Dependent Surveillance-Broadcast (ADS-B) and Traffic Information Service (TIS-B) Equipment Operating on the Radio Frequency of 1090 Megahertz (MHz). Comments received from the initial August 11, 2003, presentation resulted in significant changes to the TSO, including the addition of an Appendix A

to address corrections to the proposed RTCA Inc., Document (RTCA/DO)-260A, Minimum Operational Performance Standards for 1090 MHz Extended Squitter Automatic Dependent Surveillance-Broadcast (ADS-B) and Traffic Information Services-Broadcast (TIS-B), dated April 10, 2003. The resulting changes to this proposed TSO tells persons seeking a TSO authorization or letter of design approval what minimum performance standards (MPS) their Extended Squitter ADS-B and TIS-B equipment must meet to be identified with the applicable TSO marking.

Comments should have been received before May 31, 2004, however interested parties should still submit comments.

### **The FAA has published TSO-C163, VDL Mode 3 Communications Equipment Operating Within the Frequency Range 117.975 to 137.000 Megahertz (MHz)**

The FAA has announced the availability of the Technical Standard Order (TSO) for VDL Mode 3 Communications Equipment Operating within the Frequency Range 117.975 to 137.000 MHz. The VDL Mode 3 TSO recognizes the RTCA document No. (RTCA/DO)-271B, Minimum Operational Performance Standards (MOPS) for Aircraft VDL Mode 3 Transceiver Operating in the Frequency Range 117.975-137.000 MHz, as the minimum performance standards (MPS) for VDL Mode 3 equipment.

### **The FAA has published for comments Technical Standard Order-C170, High Frequency (HF) Radio Communications Transceiver Equipment Operating Within the Radio Frequency Range 1.5 to 30.00 Megahertz**

The FAA’s notice announced the availability of and requests comments

on a proposed Technical Standard Order (TSO)-C170, HF Radio Communications Transceiver Equipment Operating within the Radio Frequency Range 1.5 to 30.00 Megahertz. The proposed TSO tells manufacturers seeking TSO authorization or letter of design approval what minimum performance standards (MPS) their HF radio communications transceiver equipment must first meet for approval and identification with the applicable TSO markings.

Comments should have been submitted before June 18, 2004.

### **The FAA has published for comment a proposed Policy Statement on Establishing Supplemental Type Certificate (STC) Project Workload Priorities; PS-ACE100-2004-10028**

The FAA has announced the availability of, and requests comments on, proposed policy statement PS-ACE100-2004-10028, which establishes workload priorities for incoming supplemental type certificate projects (STC). When new STC projects arrive, the Aircraft Certification Office engineer or supervisor must prioritize these projects. To avoid devoting excessive FAA resources to incomplete data packages, we are establishing a policy that will minimize delays to applicants who submit complete packages.

Comments must be received before July 26, 2004.

### **The FAA has published draft Advisory Circular 23-XX-21, Airworthiness Compliance Checklists for Small Airplanes During Major Alterations**

The FAA has announced the availability of and requests comments on a proposed AC. Proposed AC 23-XX-21 provides guidance material for the creation and use of airworthiness compliance checklists for small airplanes that

can be used when making major alterations to small airplanes. Use of these compliance checklists should be limited to alterations that have been determined to be "major" alterations, as defined in 14 CFR part 1, but which are not so complex that they require an STC, per FAA Order 8300.10, as amended. Material in this AC is neither mandatory nor regulatory in nature and does not constitute a regulation.

Comments must be received before July 27, 2004.

## **Canada**

### **Transport Canada sets date for Avionics Modification Workshop**

TCCA has confirmed that the 2004 TC/Industry Avionics Modification Workshop is to be held December 1-2, in Ottawa. TC plans to follow the format adopted in 2003, and will be inviting avionics specialists from the FAA, Small Airplane Directorate, to participate in the workshop. AEA Canada's Regional Meeting will immediately follow the workshop on December 3-4.

Details will be available at [www.tc.gc.ca/CivilAviation/certification/engineering/avionics/Workshop04/menu.htm](http://www.tc.gc.ca/CivilAviation/certification/engineering/avionics/Workshop04/menu.htm)

### **Frequently Asked Questions**

The Avionics Engineering section at TCCA Aircraft Certification has created a Frequently Asked Questions (FAQs) website to provide answers to common issues raised by industry.

One FAQ page deals with flight recorders, and identifies that TCCA intends to initiate regulatory activity during FY2004-05 for the purpose of adopting ICAO SARPs wherein a combination CVR/DFDR may serve as both the required DFDR and the required CVR on rotorcraft. The results of this will be reflected in the applicable Canadian Airworthiness

Standards. In the interim and until the Canadian regulations and standards are amended, persons wishing to comply with the ICAO SARP are asked to call the rule OPI, Inspector Tom Dunn, at (613) 998-0794.

Avionics FAQ pages may be seen at: [www.tc.gc.ca/CivilAviation/certification/engineering/avionics/FAQ/menu.htm](http://www.tc.gc.ca/CivilAviation/certification/engineering/avionics/FAQ/menu.htm)

## **Europe**

### **EASA**

During the EASA Industry meeting in Brussels on April 26, EASA explained and documented some milestones in their continuous effort to reach the goal of full operational capability.

EASA will be permanently adding additional staff and has set its pace by reaching just over 100 employees by the end of this year.

The Certification Directorate headed by Norbert Lohl is responsible for the certification of products and organizations. Priorities by the end of 2004:

- 1) Have all managers in place,
- 2) Have first project managers and certification specialist in place,
- 3) Have all the certification staff (31) settled in Cologne,
- 4) Have complete set of internal certification procedures adopted and published,
- 5) Have certification database published (lists, registers, etc.),
- 6) Have established sound working relationships and strong link of confidence, co-operation and communication with all relevant partners and customers.

His part of the organization will be divided into a Products and an Organization department each headed by department managers.

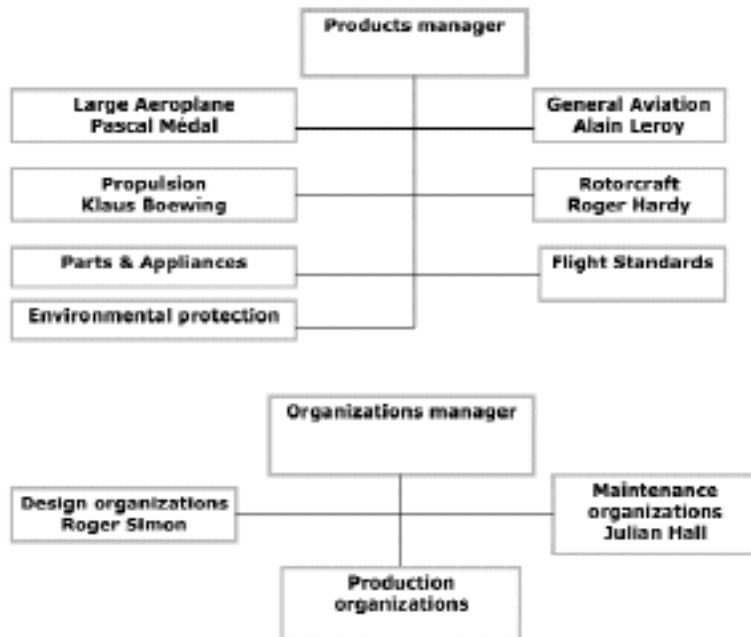
Both department managers are still

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## VIEW FROM WASHINGTON

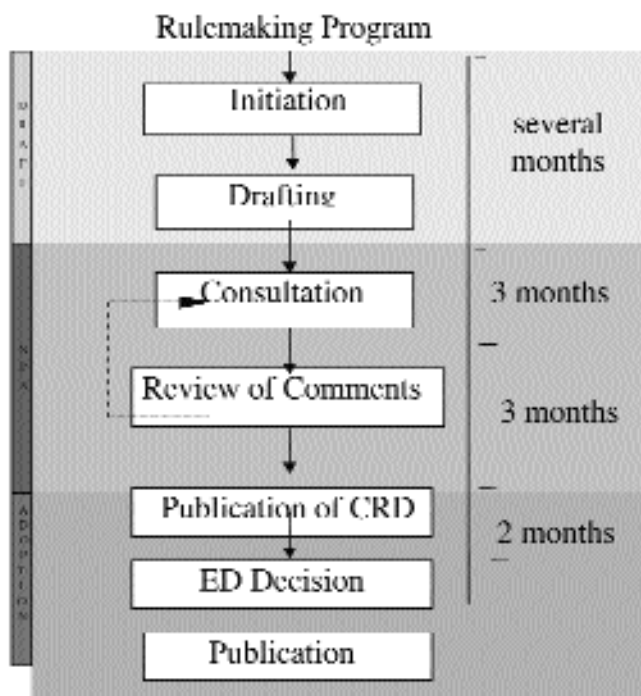
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to be named after completing an ongoing recruitment process. In the meantime, some other certification specialists have already been named.



## Rulemaking

The timeframes allowed within the rulemaking procedure for the individual steps of the process have been set and been made official as follows:



## ADs

According to its statute, the Agency is responsible for the design of products, parts and appliances designed, manufactured or used by persons under the regulatory oversight of EU Member States. EASA has issued a list with all EASAAD's on their website.

It is to be understood that the dissemination of airworthiness directives to aircraft owners is a responsibility of the State of registry and does not belong to the Agency.

Only those airworthiness directives issued by the Agency itself are published.

## Consultations:

This new consultation has been introduced on the latest issue of the EASA certification website. It is intended to be used as the Comment request to a proposed Special Condition initiated due to CRIs (Certification Review item) out of an STC or TC program.

## JAA

JAR OPS-3 Amendment 3 was issued amending and adding references to FDR installations and the requirement of SSR Transponders i.a.w. ICAO Annex 10 Volume IV when operating under VFR rules.

NPA OPS-34 was issued to clarify and align the requirement of Emergency Locator Transmitters with ICAO Annex 6 Part 1 and JAR-11.

Comment period ends on July 1, 2004.

## EUROCONTROL

Eurocontrol has issued a revised avionics information site on their webpage which explains most of the CNS/ATM proposed, planned and existing avionic mandates. □