

### **PMA Parts, European harmonization?**

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#### Introduction Outline

#### • EASA;

- Changes in the regulations
- International cooperation
- EASA / FAA
  - Harmonization
  - Cooperation
- Questions



- Basic regulation
- Airworthiness & Environmental Certification
- Continuing Airworthiness
- AMC & GM
- CS amendments





### Changes to EC 216/2008:

#### **Basic Regulation**

(see <a href="http://www.easa.europa.eu/ws\_prod/g/rg\_regulations.php#BR">http://www.easa.europa.eu/ws\_prod/g/rg\_regulations.php#BR</a>)

- No changes in 2010
  - Changes of 2009 have created the environment for the further development of EASA as agency with safety oversight of the Total Aviation System including
    - Air operations (ATM / ANS, Aerodromes)
    - Pilot Licensing
    - Third Country Operators
    - Oversight & Enforcement



#### Changes to EC 1702 / 2003: Airworthiness & Environmental C

#### Airworthiness & Environmental Certification Implementing Rules

See: http://www.easa.europa.eu/ws\_prod/g/rg\_regulation\_1702\_2003.php

- No changes in 2010
  - Next step will be the restructuring of the regulation to the GERT (General EASA Rulemaking Template) which is now applied for the operational section



AMC and GM to IR Certification (Initial Airworthiness)

#### Decision 2010/001/R amending AMC/GM to Part-21 (30 March 2010)

- Miscellaneous Part-21
  - New requirements, forms and AMC to reflect the format of the reference number for organisation approvals, as specified per Decision No. 2004/4/RM
  - Cleaning up of Part 21 and AMC/GM, in order to cover the less urgent comments to the initial consultation of the first draft Part 21 and AMC/GM
- Permit to Fly privilege for Continuing Airworthiness Management Organisation
  - Covering introduction of privilege for CAMO per EC 1194/2009.
- Authorised Release Certificate EASA Form 1
  - Covering changes due to revision of EASA Form 1 (now at issue 2) and completion instructions following harmonization efforts with FAA, Transport Canada and other authorities on their Authorized Release Certificates, per EC 1194/2009



### EASA

#### Changes to the regulations

AMC and GM to IR Certification (Initial Airworthiness)

Decision 2010/016/R amending AMC/GM to Part-21 (23 December 2010)

- Extended Range Operations with Two-Engined Aeroplanes ETOPS Certification and Operation
  - Introduction of subparagraph AMC 21A.3(a) Collection, investigation and analysis of data related to ETOPS significant occurrences
- Systematic review and transposition of existing FAA TSO standards for parts and appliances into EASA ETSO
  - AMC 21A.608 Declaration of Design and Performance: adding more detailed examples of information to be given in the Declaration
- Other party supplier control
  - accept oversight of suppliers' quality management systems by an independent supplier oversight system as an alternative method for the POA holder to fulfill his supplier surveillance responsibilities
- A complete overview of all amendments to Part-21 AMC/GM can be found here:
  - http://www.easa.europa.eu/ws\_prod/g/rg\_amcgm.php#AMCPart-21



#### Changes to EC 2042 / 2003 Continuing Airworthiness - Implementing Rules

See:http://www.easa.europa.eu/ws\_prod/g/rg\_regulation\_2042\_2003.php

EC 127/2010 (5 February 2010)

- Introduces similar changes as EC 1194/2009 (revision of EASA Form 1)
- <u>Revision of EASA Form 1</u> (now at issue 2) and completion instructions following harmonization efforts with FAA, Transport Canada and other authorities on their Authorized Release Certificates
  - Removal of block 9 'Eligibility' eliminates possible inconsistencies with approved installation data
  - Introduces possibility of electronic EASA Form 1
  - Transition period: EASA Form 1 (issue 1) may be issued until 28 September 2010
  - Note: EASA Form 1 (issue 1) may no longer be issued and is no longer acceptable for new parts produced after 27 September 2010
- Minimum retention period of maintenance records increased from **2** to **3** years
- New maintenance ratings C21 "water ballast" and C22 "Propulsion augmentation"
- Changes in layout of Part-145 and Part-M Subpart F Maintenance Organisation Approval certificates
- Changes to scope of work w.r.t. indirect approval



1. Approving Competent Authority/Country		2. AUTHOR	3. Form Tracking Number					
4. Organisation Name	and Address:	I			5. Work Order/Contract/Invoice			
6. Item	7. Description	8. Part No.	9. Qty.	10. Serial No.	11. Status/Work			
12. Remarks								
13a. Certifies that the	items identified above were manufactu	red in conformity to:	14a. 🗋 Part 145.A.50 Release to Service 🗋 Other regulation specified in block 12					
approved design data and are in a condition for safe operation			Certifies that unless otherwise specified in block 12, the work identified in block 11 and					
non-approved	l design data specified in block 12		work the items are considered ready for release to service.					
13b. Authorised Signature		13c. Approval/ Authorisation Number	14b. Authorised Signature		14c. Certificate/Approval Ref. No			
The second s					7 11			
13d. Name		13e. Date (dd mmm yyyy)	14d. Name		14e. Date (dd mmm yyyy)			
USER/INSTALLER RESPONSIBILITIES								
This certificate does no	ot automatically constitute authority to	install the item(s).						
Where the user/installer performs work in accordance with regulations of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts items from the airworthiness authority specified in block 1.								
Statements in blocks 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.								

EASA Form 1-21 Issue 2.



### Changes to EC 2042 / 2003

#### **Continuing Airworthiness - Implementing Rules**

#### EC 962/2010 (26 October 2010)

 Allows the competent authorities of the Member States and the interested parties to defer the application of certain provisions affecting aircraft not involved in commercial transport other than large aircraft for an additional period of 1 year

(ref. Article 7(3)(g) of Regulation (EC) No 2042/2003).



### EASA

### Changes to the regulations

AMC and GM to IR Continuing Airworthiness

# Decision 2010/002/R amending AMC/GM to Part-M, Part-145, Part-66 and Part-147 (5 May 2010)

- Amendments related to:
  - EASA form 1 changes
  - Introduction of Privileges for Continuing Airworthiness Management Organisations (CAMOs)
  - Editorial changes
  - Electrical Wiring Interconnect System

#### Decision 2010/006/R amending AMC/GM to Part-M and Part-145 (7 September 2010)

 Addresses (maintenance) tasks and responsibilities to prevent accidents/incidents caused by stiff flight control systems due to frozen rehydrated de-icing/anti-icing fluid residues

Decision 2010/011/R amending AMC to Part-66 (21 December 2009)

 Regular amendment of aircraft types to Part-66 AMC Appendix I: Aircraft type ratings for Part-66 aircraft maintenance licenses



#### **EASA regulations** How to read amendments?

- Amendments to Essential Requirements and Implementing Rules are now published as consolidated versions
  - Partly available on the EASA website with more to come.
  - <u>http://easa.europa.eu/rulemaking/docs/technical-publications/EASA\_Part-145.pdf</u>
  - <u>http://easa.europa.eu/rulemaking/docs/technical-</u> publications/EASA\_Part-M.pdf
  - Downloads are free of charge.
  - Printed version can be ordered at € 18,--
- Amendments are "cumulative":

Original issue of regulation

All subsequent amendments of that regulation +

Current version of a regulations

- PART 21 consolidated version available at Eur-lex

http://eur-

lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2003R170 2:20091228:EN:PDF



### **CS** amendments:

- 2010 / 007 / R CS 23 Amendment 2
- 2010 / 008 / R CS 23 Amendment 2 correction
- 2010 / 005 / R CS 25 Amendment 9
- 2010 / 013 / R CS 25 Amendment 10
- 2010 / 015 / R CS E Amendment 3
- 2010 / 010 / R CS ETSO Amendment 6
- 2010 / 014 / R CS Definitions Amendment 2



Decision 2010 / 005 / R amending CS 25 (Amendment 9) (12 August 2010) excerpt

#### **CS 25.813 Emergency exit access and ease of operation** (See AMC to 25.807 and 25.813 and AMC 25.813(c))

(c)(7) The design of each seat, bulkhead/partition or other feature, bounding the passageway leading to each Type III or Type IV exit must be such that -

(i) evacuees are hindered from climbing over in the course of evacuating.
(ii) any baggage stowage provisions (such as under seat stowage) would prevent baggage items entering the passageway under the inertia forces of CS 25.561(b)(3) unless placards are installed to indicate that no baggage shall be stowed under the seats bounding the passageway.

(iii) no protrusions (such as coat hooks) could impede evacuation.



Decision 2010 / 005 / R amending CS 25 (Amendment 9) (12 August 2010) excerpt continued

#### **CS 25.813 Emergency exit access and ease of operation** (See AMC to 25.807 and 25.813 and AMC 25.813(c))

- (c)(8) The design and arrangement of all seats bordering and facing a passageway to each Type III or Type IV exit, both with and without the bottom cushion in place, must be free from any gap, which might entrap a foot or other part of a person standing or kneeling on a seat or moving on or along the seat row.
- (c)(9) The latch design of deployable features (such as tables, video monitors, telephones, leg/foot rest) mounted on seats or bulkheads/partitions bordering and facing a passageway to a Type III or Type IV exit, must be such that inadvertent release by evacuating passengers will not occur. The latch design of deployable features must also be such that cabin crew can easily check that the items are fully latched in the stowed position. Placards indicating that each such item must be stowed for taxi, take-off and landing must be installed in the normal field of view of, and be readable by each person seated in each seat bordering and facing a passageway to a Type III or Type IV exit.



Decision 2010 / 013 / R amending CS 25 (Amendment 10) (17 December 2010)

#### SUBPART G – OPERATING LIMITATIONS AND INFORMATION

#### CS 25.1535 ETOPS Design approval

To determine an aircraft configuration capable of ETOPS, the following must be complied with:

- a) Comply with the requirements of CS-25 considering the maximum flight duration and the longest diversion time for which approval is being sought.
- b) Consider crew workload and operational implications and the flight crew's and passengers' physiological needs of continued operations with failure effects for the longest diversion time for which approval is being sought.
- c) Establish appropriate capability and limitations.





Decision 2010 / 010 / R amending CS ETSO (Amendment 6) (21 December 2010)

- (CS-ETSO not published as consolidated version following this Decision)
  - Systematic review and transposition of existing FAA TSO standards for parts and appliances into EASA ETSO
    - deleting, inserting and revising multiple ETSO



#### AMC 20 amendments:

- Amdt. 6 (Decision 2010/003/R) **(26 July 2010)** (AMC-20 not published as consolidated version following this Decision)
  - New AMC 20-29: Composite Aircraft Structure
- Amdt. 7 (Decision 2010/012/R) **(23 December 2010)** (AMC-20 not published as consolidated version following this Decision)
  - Revised AMC 20-6 (rev.2): Extended Range Operations with Twoengine Aeroplanes ETOPS Certification and Operation
- See for all CS and AMC documents

http://easa.europa.eu/agency-measures/certification-specifications.php



### **Future changes**





### **EASA** Future changes

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#### **EASA** Future changes

#### EASA has published the 2010 – 2014 rulemaking program

Current rulemaking program	Task No.	Title	Changes from RMP 2010-2013 to RMP 2011-2014 (including consultation)	Pre-RIA score	Driver	R2 Environmental Protection R3 Flight Standards R4 Product Safety R5 ATM/Airport	Work method	Task leading to	<u>Start date</u> <u>Year/Quarter</u>		<u>End date</u> Year/Quarter	
2011-2014	21.039 (k)	Additional airworthiness specifications for operations – Transposition of JAR-26 into CS-26 Envisaged deliverable: First issue of to CS-26. Depending on outcome of opinion on task 21.039(a)	Ending date changed from 2012.01 to 2012.03 - Work method changed - Title changed	B7	Safety related Legal obligation	R4	Agency	Decision	2007	03	2012	03
2011-2014	21.041	Part 21 Subpart H review The objective is to improve the drafting of current provisions and to establish guidance material to avoid recurrence of identified implementation problems.	Starting date changed from 2010.01 to 2010.04	pre-RIA old format	MS Request	R4	Group	Opinion	2010	04	2013	03
2011-2014	21.046	Replacement parts. Introduction of provisions allowing approval of replacement parts taking into account acceptance of PMA parts under the bilateral agreement with the US	Ending date changed from 2012.01 to 2012.02	pre-RIA old format	Industry Request	R4	Agency	Opinion	2009	04	2012	02
2011-2014	21.047	3D models. Introduce guidance to make clear that TC applicant can use 3D models instead of 2D drawings.			Industry Request	R4	Agency	Decision	2013	01	2015	01

Full EASA rulemaking program can be found under:

http://easa.europa.eu/rulemaking/docs/programme/2011-2014/RMP%202011-2014%20and%20Inventory.xls



### **International Cooperation**





#### **International Cooperation**

- Full competence of EASA on operations and licensing in 2012
- International cooperation
  - Working arrangements have been concluded with Australia, Brazil, Canada, China, Israel, Japan, New Zealand, Russia, Saudi Arabia, Singapore, the Inter-States Aviation Committee of the Community of Independent States and UAE
  - 29 Working Arrangements with Chinese Authorities
  - International Cooperation Forum
  - Working Arrangements with ECAC countries to ensure pan-European cooperation for aviation safety after dissolution of JAA (Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Croatia, Georgia, Moldova, Monaco, Montenegro, San Marino, Serbia, The Former Yugoslav Republic of Macedonia, Turkey, Ukraine)



### Order 8100-14A





**EASA - FAA** Order 8100-14A

Order 8100-14A Change 2 (Effective since September 07 2008)

#### New BASA agreement 8312/09 signed 15 March 2011

- Effective from May 01 2011
- Establishment of a Bilateral Oversight Board
- Except as specified in the Annexes to this Agreement, this Agreement shall not be construed to entail reciprocal acceptance or recognition of standards or technical regulations of the Parties
- A joint technical coordination body called the Certification Oversight Board, accountable to the Bilateral Oversight Board, is hereby established under the joint leadership of the Technical Agents.
- BASA only applicable for the EU Countries under EASA



EASA - FAA Order 8100-14A

#### New BASA agreement 8312/09 (continued)

#### Products and Associated Export Documentation Accepted for Import into the EU

- The following new parts manufactured under a U.S. production approval that conform to EASA-approved design data and are eligible for installation in a product or appliance which has been granted an EASA design approval (accompanied by an FAA Form 8130-3, Authorized Release Certificate):
  - Replacement parts for the product and/or appliance including parts produced under licensing agreement to an EASA design approval holder.
  - Modification parts for design changes where FAA is the State of Design for the design change or the parts are produced under licensing agreement to an EASA design approval holder.
  - PMA replacement and modification parts as defined in the technical implementation procedures when accompanied by an FAA Form 8130-3 with appropriate certifying statements.

# Questions?

## Thank you for your attention

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