

European Aviation Safety Agency

**Comment Response Document (CRD)
on Consultation paper nr. 8 of 29 July 2003**

**CS-Definitions
Definitions and abbreviations used in the certification specifications for
products, parts and appliances**

Foreword to the Comment Response document (CRD)

To give a rapid overview of the CRD, the following keywords were used in responding to comments:

- “Carried”: The proposed amendment is wholly transferred to the revised text.
- “Noted”: The comment is acknowledged and where needed the text has been improved.
- “Deferred”: The comment requires further assessment by the Agency under its future rulemaking programme.
- “Disagreed”: The comment is not shared by the Agency.

CRD - CS Definitions

General Terminology

Para.

42 / ACG

Comment

ACG position to Consultation paper no. 8/2003-07-29:

ACG is supporting the proposal but would like to address that Terminology and abbreviations as used in EASA CS for Aircraft, Parts and Appliances are published as AMC.

An AMC is a non-exclusive means of demonstrating compliance with airworthiness codes or implementing rules which could be exchanged by the applicant easily. Several terms as defined in the AMC should support the airworthiness codes, which are standard technical interpretations of the airworthiness essential requirements contained in Annex 1 to the Basic Regulation which are now classified as AMC.

This term is f. e.

Atmosphere, International Standard
Category used for rotorcraft,
Climates, Standard
Fireproof
Fire-resistant
Icing Atmospheric conditions.

This are only samples where it would be essential to be included in a CS as proposed by the Core Group and not as AMC. This term has a strong relation to the CS/airworthiness codes and should therefore have the same status.

Response

Noted.

The status of this document is changed to CS. To improve the visibility its title is changed to "CS-Definitions".

The general policy with regard to definitions in Certification Specifications is to include them in CS-Definitions only if they are used in more than one code. Definitions for the purpose of one code are included in that code.

Abbreviations & symbols

Para.

11 / CAA UK

Comment

1VFF should read VFE (Flap extended speed)
2VMCI should read VMCL
3VSW – Text should read ...artificial... not "artificial" as written.

Response

Carried

Para.

9 / FAA USA

Comment

1. "Continuous OEI Power and/or Thrust" and "Continuous OEI Power and/or Thrust Rating" -- For the FAA, these definitions apply only to rotorcraft turbine engines. The EASA definition does not contain such restriction. (This reflects a current difference between the FARs and the JARs.)
2. "2 1/2-minute OEI Power and/or Thrust" and "2 1/2-minute OEI Power and/or Thrust Rating" -- For the FAA, these definitions apply only to rotorcraft turbine engines. The EASA definition does not contain such restriction. (This reflects a current difference between the FARs and the JARs.)
3. "VFF" (maximum flap extended speed) -- typo - should be "VFE"
4. "VMCG" -- The definition provided here in AMC 1 ("minimum control speed, on or near ground") conflicts with the definition provided in CS 25.149(e) ("minimum control speed on the ground"). (This conflict exists in the current JARs.)
5. "VMCI" -- First, there is a typo; the abbreviation should be "VMCL." Second, the definition is incomplete. In accordance with CS 25.149(f), VMCL is the minimum control speed during approach and landing with all engines operating. There is another speed, VMCL-2, defined in CS 25.149(g) as the minimum control speed during approach and landing with one critical engine inoperative. A definition for VMCL-2 is not provided in AMC-1.
6. Typos -- For speeds VSR through VSW, the quotation mark preceding the abbreviation is missing. The "w" in VSw" should be capitalized.
7. The asterisks preceding "VF," "VFC/MFC," "VFE," "VTOSS," and "VY" are not explained. (This appears to be carryover from JAR-1.)
8. The terms "fire resistant" and "fireproof" include quantitative criteria not found in the FAR; while these criteria are generally used as guidance, obviously making them a definition raises the bar.
9. A term "harness" is now included and it specifically requires two upper torso straps to be defined as a harness including the lapbelt. Since there are single upper torso restraints, this definition might contain an oversight. Again, the way the term is defined would mean that a single upper torso restraint with lapbelt would not be a "harness."
10. Commuter airplanes are specifically excluded from the definition of "large airplanes" even though they would otherwise be included. The FAR makes no such distinction. There is no definition for "small airplanes."
11. "Maintenance" has been defined to include modifications; this would seem to be improper and conflicts with part 1.

Response

1. Noted.
2. Noted.
3. Carried.
4. Noted.
5. Noted. Typo is corrected.
The definition is not incomplete regarding VMCL. The definition of VMCL-2 is limited to CS-25.
6. Carried.
7. Noted. The asterisks were used in JAR-1 to identify definitions which are identical to those in FAR Part 1. These are deleted.
8. Noted. This is consistent with JAR-1. The difference was existing between JAR-1 and FAR Part 1 and has not yet been harmonised.
9. Noted. This is consistent with JAR-1, and was introduced in 1977.
10. Noted. The definition of Large Aeroplane in AMC-1 is consistent with the applicability of CS-25, which is not applicable to commuter category aeroplanes. The commuter category is defined in CS-23.
11. Noted. "Maintenance" is defined in the COMMISSION REGULATION (EC) on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks, and can therefore be deleted from AMC-1 because it is not used outside the scope of this Regulation.

10 / AECMA

Comment

The explanatory memorandum stated that definitions used exclusively for areas like operations, licensing or propulsion are transferred into the respective certification specification.
This is a difference to JAR-1 that intended to give the full scope of terms and definitions used in JARs so far published.

=> This AMC cannot be used as a reference source to find clarifications in interface issues. To be aware of the full scope of terminologies and abbreviations, all respective codes must be available and kept up-to-date.
This creates a continuous administrative burden for industries having its focus on one area, but which may need to solve interface issues.

=> Following the definition of an AMC (...a means but not the exclusive means...) this document does not present binding definitions.
Therefore, it will neither prevent confusion between industry and Authorities, nor help industry experts to find a base line of common understanding, except through company-created glossaries.

=> A further inconsistency is to have terms and definitions in AMC and CS. Those in CS do have a more binding character and update procedures are different. This may also cause confusion and time-consuming discussions.

Para.

It is therefore recommended to reconsider the binding status of this AMC, and either to further develop this document to the sole source of terms and abbreviations or to put all information into the respective certification specifications.

Response

Noted.

Because of the current scope of EASA the definitions in draft AMC-1 are limited to airworthiness, so definitions related to operations and flight crew licensing only are not included. This does not mean that in the future this document may include such definitions.

The general policy with regard to definitions in Certification Specifications is to include them in draft AMC-1 only if they are used in more than one code. Definitions for the purpose of one code are included in that code. Also JAR-1 was not intended to be primarily a glossary of terms and did not repeat definitions for the purpose of one code.

Noted.

The status of this document is changed to CS. To improve the visibility its title is changed to "CS-Definitions".

The general policy with regard to definitions in Certification Specifications is to include them in CS-Definitions only if they are used in more than one code. Definitions for the purpose of one code are included in that code.

32 / SNECMA

Comment

Propose different text

'Appliance' see Components, Parts, Appliances, Product

'Components' see Components, Parts, Appliances, Product

'Parts' see Components, Parts, Appliances, Product

'Product' see Components, Parts, Appliances, Product

'Components, Parts, Appliances, Product' The following terms are defined in the EC Regulation 1592/2002 and are quoted for ease of reference :

"parts and appliances" means any instrument, equipment, mechanism, part, apparatus, appurtenance or accessory, including communications equipment, that is used or intended to be used in operating or controlling an aircraft in flight and is installed in or attached to the aircraft. It includes parts of an airframe, engine or propeller;

"product" means an aircraft, engine or propeller;

Component (not in 1592/2002), means a material, part or sub-assembly not covered by the other definitions for use on civil aircraft, engines, propeller or appliances.

The arrangement proposed above was in its principle in Amendment 1/97/1 (OP) to JAR-1.

It is felt that there is a need for these definitions and that it would be more practical to have them in AMC-1 (or CS-1) which will be more frequently consulted by people dealing with certification problems than regulation 1592/2002. With the current text of AMC-1, there won't be much traceability to retrieve these definitions.

Response

Disagreed.

All these terms are already defined in either the Basic Regulation or the COMMISSION REGULATION (EC) laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations. These terms are all well known in the aviation community. Duplicating will increase the risk of future inconsistencies.

32 / SNECMA

Comment

It is proposed to remove the definitions for 'Maximum Engine Over-speed', 'Maximum Engine Over-torque', 'Maximum Exhaust Gas Over-temperature', 'Maximum Power-turbine Over-speed' and 'Maximum Power-turbine Speed for Autorotation' from AMC-1

These definitions are also in draft CS-E 15 and they are specific for engines.

Response

Deferred.

Awaiting the final version of JAA NPA 1-14.

32 / SNECMA

Comment

It is recommended to give to this document the status of "CS-1".

By keeping the title "AMC-1", it would create a distortion between the document for definitions and the other CS. In CS-E, definitions are contained in book 1, CS-E 15. So it means that they are part of the regulations. If definitions in AMC-1 are acceptable means of compliance, we understand that they have another status. So an applicant could offer another definition more adapted to its purpose. For example, an applicant could argue for another definition of "Fireproof", if he estimates that the current one doesn't represent well his certification case and is not fitted for the fire tests that he intends to run.

Response

Noted.

The status of this document is changed to CS. To improve the visibility its title is changed to "CS-Definitions".

General Comments

Para.

The general policy with regard to definitions in Certification Specifications is to include them in CS-Definitions only if they are used in more than one code. Definitions for the purpose of one code are included in that code.

46 / CAA Sweden

Comment

With reference to the Consultation Papers concerning certification specifications (CS) mentioned above, we would like to make the following comments.

Since the proposed certification specifications contain regulatory material which, essentially, is identical to the content of the corresponding JARs, we are in favour of the proposed material.

However, should the proposals not have the same content as those JARs, there must be a possibility to rediscuss such items.

Response

Noted.

Para. Section 1

23 / Rolls-Royce

Comment

1. In AMC 1 Sect. 1, in the definition of "Auxiliary rotor", the end of the explanation should be corrected to read "principal axes" instead of "principle axes" as in the current text.

2. In AMC 1 Sect. 1, the definition for "Continuous OEI Power and/or Thrust" should read "(applicable to multi-engined aircraft) means the power and/or thrust identified in the performance data for use after take-off with the remaining engine(s) when an engine has failed or been shut down."

3. In AMC 1 Sect. 1, in the definition of "Continuous OEI Power and/or Thrust Rating", the words "of series and newly overhauled engines" should be deleted.

4. In AMC 1 Sect. 1, the definition of "Engine" should be modified to "means a machine designed to convert energy from its stored form, such as fuel or electric charge, into motive power, which is used or intended to be used for aircraft propulsion. It consists of at least those components and equipment necessary for functioning and control, but excludes the propeller."

5. In AMC 1 Sect. 1, there is a definition of "Harness" defining a crew restraint. The word "harness" may, however, also be used in the sense of electrical harnesses consisting of cables to transmit electric current or signals.

Response

1. Carried.

2. Disagreed. It is self-explanatory that this definition is only applicable to multi-engine aircraft.

3. Carried

4. Deferred. This is an ongoing discussion, which should be finalised by the Agency, with participation of all interested parties.

5. Noted. The comment provider may have a point but it is obvious that the definition of "harness" in AMC-1 is not applicable to electrical harnesses.

Other

Para.

6 / TURBOMECA

Comment

Definition of 30 second/2 min OEI powers and 30 second/2min power ratings are to be added as currently missing as contained in JAR 1.

As other ratings, which are used by other codes, their definitions are to be in AMC-1.

Response

Carried.

Definitions are in NPA 1-3.

6 / TURBOMECA

Comment

Definition of abortive start as contained in JAR 1 is to be added. This definition is a true definition, therefore there is no reason to remove it:

"Abortive Start: means an attempt to start, in which the Engine lights up, but fails to accelerate."

Response

Disagreed.

The term Abortive Start is defined in CS-E, and not used in any other code.

6 / TURBOMECA

Comment

From figure 2 to figure 7: add appropriate units for the Y axis (See JAR 1).

Response

Other

Para.

Carried.

Para. **PAGE 8 FIGURE 1**

6 / TURBOMECA

Comment

Add units for the Y Axis (Temperature °C) and also X axis (ALTITUDE (m) (Pressure basis)). (See figure 1 page P 9 as an example)

There are two figures 1 (P 8, P 9) should be figure 1a and figure 1b or figure 1.1 and figure 1.2.

Response

Carried.