



TERMS OF REFERENCE

- Task Nr:** 21.018
- Issue:** 1
- Date:** 26 February 2010
- Regulatory reference:** 21A.101, 21A.19 of Annex to Regulation (EC) No 1702/2003¹ (Part-21) and related GM 21A.101 (see AMC and GM to Part-21)².
- Reference documents:**
- JAR 21.101 and 21.19, ACJ 21.101 of JAA JAR-21 (Amdt. 5)
 - 21.101 and 21.19 of FAA FAR Part-21
 - FAA AC 21.101-1, Change 1 of 28 April 2003
 - CPR-IIT draft AC 21.101-1A of 16 November 2009

1. Subject: Improvement of GM 21A.101

2. Problem/Statement of issue and justification; reason for regulatory evolution (regulatory tasks):

The subject of the task is improved guidance material for application of paragraphs 21A.101 and 21A.19 of Part-21 to approve a change to type-certificated products (aircraft, engines, or propellers).

21A.101 is pertinent to designation of the applicable airworthiness certification specifications and environmental protection requirements that the changed product must comply with. It specifies airworthiness criteria for classification of changes as 'significant' or 'not significant', which are relevant to the designation of the applicable airworthiness certification specifications. The changes falling in the scope of 21A.101 are approved as changes to the existing type-certificates or restricted type-certificates.

21A.19 is pertinent to changes (referred to as 'substantial changes') which are found so extensive that an application for a new type-certificate is required in order to conduct a substantially complete investigation of compliance of the changed product with a newly established type-certification basis in accordance with 21A.17.

GM 21A.101 (see in Section D 'Changes to type-certificates' of the AMC and GM to Part-21) provides guidance to the applicants for approval of changes to type-certificated products on application of paragraphs 21A.101 and 21A.19 regarding establishment of the type-certification basis of changed aeronautical products.

¹ Commission Regulation (EC) No 1702/2003 of 24 September 2003 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 (OJ L 243, 27.9.2003, p. 6.) Regulation as last amended by Regulation (EC) No 1194/2009 of 30 November 2009 (OJ L 321, 8.12.2009, p. 5).

² Decision 2003/01/RM of the Executive Director of 17 October 2003 on acceptable means of compliance and guidance material 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 (AMC and GM to Part-21). Decision as last amended by Decision 2009/011/R of the Executive Director of the European Aviation Safety Agency of 24 August 2009.

BACKGROUND

The current contents of 21A.101 and 21A.19 of Part-21 and related GM 21A.101 have remained unchanged since the initial issues of Part-21 and AMC and GM to Part-21 in 2003. They were based on the contents of the corresponding paragraphs 21.101, 21.19 and ACJ 21.101 of JAR-21 (Amendment 5). These requirements and related advisory material resulted from a harmonised rulemaking activity by the FAA, JAA and TCCA, which led to amendments, known under the title 'Changed Product Rule' or in short CPR, to the applicable paragraphs of the respective FAA, JAA and TCCA Part-21 codes and related guidance material.

The introduction of the 'Changed Product Rule' meant a fundamental change in the approach to designation of the applicable requirements for certification of changed aeronautical products. The so-called bottom-up approach applied previously in 21.101 was replaced with a new CPR top-down approach aiming to systematically support application of the latest airworthiness requirements for certification of changes to type-certificated products unless application of earlier airworthiness requirements (stepping down) is permitted in specific cases.

The new and harmonised CPR rule changes, as supported by the applicable harmonised guidance material (FAA AC 21.101-1 Change 1, JAA ACJ 21.101 at Amendment 5), were made effective jointly by all the three authorities on 10 June 2003.

In the new EU regulatory framework, the CPR became applicable with the initial issues of Part-21 and AMC and GM to Part-21 in September and October 2003 respectively.

Since the CPR came into force in 2003, a considerable experience was gathered by all the three authorities as well as by the industry from the application of the CPR in the certification projects of changed products. Two international teams were set up: the Continuous Improvement Team (CIT) active from September 2003 to September 2005 and the CPR International Implementation Team (CPR-IIT) active since October 2007 till now. Both teams were chartered by the FAA, TCCA and the JAA/EASA to monitor the CPR implementation process with the objective to identify, also consulting the industry, any potential CPR implementation issues or identify areas of a need of further clarifications or improvements deserving further attention by the authorities.

STATEMENT OF THE ISSUE

An evaluation of the experience and lessons learned from the CPR application made by the CIT and CPR-IIT has led to identification of certain subjects of attention, such as: criteria for substantial change (21.19), conflicts/inconsistencies in the tables with classification of certain changes (interiors, avionics, product level), means of identification of the proposed change, secondary changes, means to apply later requirements for not significant change, definition of 'adequate standards' in TC basis, designation of applicable requirements when voluntarily stepping-up, clarification of burden, means to maintain improved design features, application of 'impracticality' exception, documentation of the certification basis, application of special conditions, etc. The CPR-IIT has evaluated these issues in detail with a conclusion that, whilst a rule change is not necessary at this point, the applicable guidance material should be improved to address as much as possible the specific concerns related to the issues. The CPR-IIT consequently drafted a completely revised guidance material in the form of a draft FAA AC 21.101-1A.

3. Objective:

The objective of the task is to provide the applicants for changes to type-certificated products with improved guidance material for application of the paragraphs 21A.101 and 21A.19 of Part-21. The improved guidance is to reflect the experience and lessons learned so far from the application of CPR. GM 21A.101 should be harmonised as much as possible with the FAA AC 21.101-1A.

4. Specific tasks and interface issues (Deliverables):

Draft an EASA NPA with improved guidance material for GM 21A.101, harmonised to the maximum extent possible with the draft text prepared jointly by the CPR-IIT in the form of a draft FAA AC 21.101-1A.

5. Working Methods (in addition to the applicable Agency procedures):

Agency in collaboration with the other two authorities (FAA and TCCA) participating in the CPR-IIT. Having the harmonisation objective in mind, the authorities intend to consult stakeholders on the respective draft AC and GM text, harmonised in substance to have a common basis for comments. The FAA, TCCA and EASA stakeholders' comments are intended to be reviewed jointly.

6. Time scale, milestones:

NPA: 2010/Q1

CRD: 2010/Q3

ED Decision: 2011/Q1