

Application of Contemporary Airworthiness Standards on Legacy Platforms

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The Issue

Background

- Contemporary Airworthiness Standards and Codes (Airworthiness Design Requirements Manual AAP 7001.054)
- Ageing Aircraft Type Certification Basis (TCB) does not conform to DASA contemporary standards.
- Most Foreign Military OEMs do not know, understand or care for Australian specific Airworthiness Requirements.
- Common historical practice to maintain original TCB requirements for Military platforms for new modifications.

The Result:

- Most Change to Type that Airbus receive from Foreign OEMs are not certified to DASA preferred Contemporary Standards.
- Under TAREGs there was no common decision framework to resolve this issue.



EASA/EMAR/DASR Model

- Part 21.A.101 and associated AMC/GM:
 - Allow the proposal of earlier amendments of airworthiness standards for Changes to Type Design for:
 - Minor Changes
 - Major Changes
 - Non-Significant

Regulatory Rationale: is that the impact of the change, as assessed at the aircraft level, means that there is likely to be negligible safety increase by use of contemporary standards.

- For Major Changes considered Significant:
 - Latest contemporary standards must be proposed unless detailed safety argument can be presented to show that that latest standards and codes do not contribute materially to the level of safety.



Definition of Significance

Broad criteria for Significance assessed against:

- The general configuration or the principles of construction are not retained.
- The assumptions used for certification of the product to be changed do not remain valid.

Best EASA guidance found within AMC and GM to PART 21

Annex I to ED Decision 2012/020/R





The Benefit

- Applying the EASA principles when setting the Certification Program for a Major Change on legacy platforms provides:
- A more defined framework for escalating the detail necessary when proposing non-contemporary airworthiness codes.
- Recognises that contemporary standards rarely provide an appreciable safety benefit at the platform level, unless judged to have a Significant impact on the platform.
- Provides a more globally recognised decision framework.







