

Proposed Equivalent Safety Finding to FAR 29.1457 (a) (4) and FAR 29.1457 (c) (1) (2), amendment 6 dated 07/08/1970 and CS 29.1457 (a) and CS 29.1457(c) (1), (2), amendment 3 dated 11/12/2012

1. Introductory note

The hereby presented equivalent safety finding shall be subject to public consultation, in accordance with EASA Management Board decision 12/2007 dated 11 September 2007,

Article 3 (2.) of which states:

"2. Deviations from the applicable airworthiness codes, environmental protection certification specifications and/or acceptable means of compliance with Part 21, as well as important special conditions and equivalent safety findings, shall be submitted to the panel of experts and be subject to a public consultation of at least 3 weeks, except if they have been previously agreed and published in the Official Publication of the Agency. The final decision shall be published in the Official Publication of the Agency".

2. Statement of issue:

The applicant has proposed a design whereby one audio signal identifying an approach aid is not retrievable in the cockpit voice recorder. This specific audio signal is beyond the frequency spectrum of the TSO'd CVFDR. Hence, the associated audio signal, considered as approach aid, is not retrievable from the recordings of the Cockpit voice recorder.

FAR/CS 29-1457(a) (4) requires that each cockpit voice recorder must record voice or audio signals identifying navigation or approach aids introduced into a headset or speaker

The proposed design does not meet this requirement because the design does not record this audio signal identifying this specific approach aid.

As a second consequence, the requirement of FAR/CS 29.1457 (c) (1) (2) for separate channel recording for this specific audio signal is not met.

An alternative recording method, which demonstrates that the original intent of FAR 29.1457 (a) (4) and FAR/CS 29.1457 (c) (1) (2) is met, should be provided for EASA acceptance containing elements like:

- recording the discrete trigger signal for of the audio signal on a data recorder
- demonstrating that the proposed design meets the availability and integrity requirements for the intercom system
- additional means to record crew awareness/actions

3. Safety Equivalency Demonstration:

The applicant shall demonstrate the equivalent level of safety, for EASA acceptance, of such design by showing that:

- the alternative recording method with respect to this specific approach aid audio signal still meets the objective of FAR/CS. 29-1457(a) (4) and FAR/CS 29.1457 (c) (1) (2).
- the alternative recording method with respect to this specific approach aid audio signal does not adversely affect accident investigation.

Means of compliance shall be proposed such as analysis, tests, etc. to investigate at least an equivalent method of recording on separate channels with respect to this specific audio signal.