

Consultation paper
Equivalent Safety Finding

Doc. No. : ESF-G23.1549-01

Issue : 1

Date : 27.07.2022

Proposed ☒ Final ☐

Deadline for comments: 17.08.2022

SUBJECT : **Powerplant Instruments – Normal Operation Range Colour**

REQUIREMENTS incl. Amdt. : **CS 23.1549(b)**

ASSOCIATED IM/MoC : Yes ☐ / No ☒

ADVISORY MATERIAL : **none**

INTRODUCTORY NOTE:

The following Equivalent Safety Finding (ESF) has been classified as important and as such shall be subject to public consultation in accordance with EASA Management Board decision 12/2007 dated 11 September 2007, Article 3 (2.) 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."

IDENTIFICATION OF ISSUE:

EASA has received an application for approval of a major design change to a business jet, where the colour coding of some powerplant instruments aircraft design is not fully compliant with CS 23.1549(b).

CS 23.1549(b) requires that each normal operating range must be marked with a green arc or green line, not extending beyond the maximum and minimum safe limits.

Differently, in the presented design change N1 and Interstage Turbine Temperature (ITT) are indicated through white arcs in the normal operating range with the use of amber and red colours in the background when limits are exceeded.

Therefore the applicant has requested an Equivalent Safety Finding (ESF) to CS 23.1549(b) with the argument that the FAA AC 20-88A "Guidelines on the marking of aircraft powerplant instruments (displays)" and FAA AC 23.1311-1C "Installation of Electronic Display in Part 23 Airplanes" provides the basis for using a colour other than "green" to indicate normal engine operation.

EASA considers that the ESF in Appendix A, combined with the presented description, provides a level of safety equivalent to CS 23.1549(b).

