



Comment Response Document (CRD) to ESF-F23.1311-01 is.1

CRD table of comments, responses and resulting text

(General Comments)

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comment

1

comment by: *Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)*

General

Thank you for the opportunity to comment on 'Equivalent safety finding for installation of Dual EFI system without Independent Secondary Attitude Indicator'. Please be advised that there are no comments from the Swedish Transport Agency.

response

Noted

Thank you for your comment.

comment

2

comment by: *LBA*

LBA comments:

Concerning the system under investigation the real problems could come up with 1309. That paragraph should be considered in connection with the one discussed in this ESF proposal.

Different to comparable systems from other vendors Aspen's attitude indication has an additional dependence with the air data. In the past that was also a reason why a completely independent attitude indication was necessary. If the here newly proposed addition of GPS data would sufficiently mitigate that or only add even more dependencies need to be carefully analysed under 1309.

The installation of multiple systems of the same type constitutes redundancy (if sensors are not used jointly), however not dissimilarity. Addition of a system dedicated battery brings independence from the aircraft electrical system if properly maintained and used by the flight crew. In previous versions of their system Aspen declared the battery as "not for certification". It needs to be clarified if that still is the case.

response

Noted

Thank you for your comment. EASA acknowledges the comment and understand that it does not directly address the proposed ESF and also that no change is proposed to the ESF itself, therefore the ESF will not be changed. `

EASA wish to nevertheless provide additional information to clarify the points raised by the commenter. The response has been prepared with the support of the FAA who raised the ELOS to which this EASA ESF makes reference:

EASA wish to confirm that for the STC to which this ESF is applicable, CS 23.1309 and CS 23.1353(h) are part of the EASA Certification basis (and respectively FAR 23.1309 and FAR 23.1353(h) for the FAA certification basis) and that the installation which is addressed by this ESF has been shown to comply to the above requirements.

In particular, it is confirmed that the Aspen dependence on airspeed is mitigated by GPS groundspeed. The mitigation for the airspeed reduces the probability of failure through the replacement of the airspeed input with GPS groundspeed. Careful analysis showed that with this change, the probability of failure of the attitude indication on the EFD1000 is reduced.

Furthermore, the dedicated battery is certified to meet the 30-minute requirement of CS 23.1353(h). The ICA requires proper battery maintenance, and the flight crew is required to check the battery level before dispatch by placard and AFMS.

More details on the above aspects are in the FAA ELOS.