



COMMENT RESPONSE DOCUMENT

EASA CRD of Deviation on CS 25.1193 – “Engine Cowl retention”

Applicable to Boeing 737-8 and 737-9

[Published on 29 September 2016 and officially closed for comments on 24 October 2016]

Commenter 1: Alaska Airlines (ASA)

Comment # 1 – Deviation terms

ASA Engineering review of 737NG fan cowl latch reliability concluded no significant equipment failures in past 15 years, and our MSG-3 analysis of MSI 71-20 did not identify risks with planned B737-8 fan cowl latch design.

Comment :

Complexities of introducing a new cable driven flags for increased awareness will not meet planned certification timeline for B737-8 or B737-9.

EASA response:

EASA partially agrees.

The objective of the Special Condition ‘engine cowl retention’ is not to address equipment failure as mentioned in your statement, but to give reliable means to effectively verifying that the cowling is secured prior to each take-off. The introduction of the Special Condition in the MAX certification basis was justified by a different powerplant installation on the MAX compared to the 737 NG (reduction of ground clearance with the LEAP 1B installation).

Finally, the B737 in-service experience is not free from fan cowl released in flight (refer to SC ‘Engine cowl retention’ and associated Comment Response Document published in December 2012 : <https://www.easa.europa.eu/documents/public-consultations/proposed-special-condition-cs-251193>)

Your comment about the schedule for the aircraft certification completion is right: Being not compatible with the availability of the solution developed by Boeing, a time limited deviation is needed.

Comment # 2 – Deviation terms

ASA understand Boeing has committed to introducing cable driven flags with B737-7 and defer incorporation on B737-8 or B737-9 by 30 June 2021.



Comment :

Cable driven flag design adds both mechanical damage risk and compliance risk due to human factors elements. ASA will recommend to Boeing and the FAA to NOT obligate retrofit to B737-8 or B737-9 fleets, as this cable driven flag adds unnecessary complexity with attendant increase in maintenance expense.

EASA response:

EASA Disagrees.

The new design that will be retrofitted on the -8 and -9 will be mandatory to restore full compliance with the applicable certification basis. Similar design has already been certified , implemented and released into service with no adverse in-service experience (delays, cancellations, damages).

Commenter 2: Ryanair

Comment # 3 : Deviation terms

During operation of the Boeing 737NG aircraft over a 17-year period, Ryanair has no experience of significant failure or reliability issues with the existing 737NG fan cowl latch design.

Comment :

Boeing's future commitment to implement cable tied flags on the latch handle only adds unnecessary complexity to the system which may impact on Aircraft delays and Cancellations, this design also increases the risk of damage to the nacelle and surrounding parts.

EASA response: (Please indicate if EASA agrees, partially agrees, or disagrees)

EASA disagrees:

The objective of the Special Condition ‘engine cowl retention’ is not to address equipment failure as mentioned in your statement, but to give reliable means to effectively verifying that the cowling is secured prior to each take-off.

In addition, the introduction of the Special Condition in the MAX certification basis was justified by a different powerplant installation on the MAX compared to the 737 NG (reduction of ground clearance with the LEAP 1B installation). Finally, the B737 in-service experience is not free from fan cowl released in flight (refer



to SC ‘Engine cowl retention’ and associated Comment Response Document published in December 2012:: <https://www.easa.europa.eu/documents/public-consultations/proposed-special-condition-cs-251193>.

Concerning your comment, please note that similar design on different aircraft has already been certified , implemented and released into service with no adverse in-service experience (delays, cancellations, damages).

