

Ageing Aircraft Info Session for STCHs, Q&A.

Q1. Are the repairs / alterations / changes, that are validated under the FAA PART 26 rule, automatically acceptable under the new EASA AASR rule?

Answer:

The damage tolerance (DT) data that has been approved by the FAA can be used to demonstrate compliance with Part-26 where the requirements are equivalent. The means to accept that data and approve it or recognize it as approved data for use by EU operators is subject to specific considerations, therefore it should be discussed with EASA as part of the compliance plan that STC holders have to submit to EASA in accordance with point 26.331 of Part-26. For non-EU STCHs the involvement of the authority of the state of design is expected, depending on the TIP and associated agreements. Note that according to point 26.333, DT data already approved by EASA for STCs issued on or after 1st September 2003 does not need to be submitted for approval if it is confirmed to be complete by the STCH in the compliance plan.

Q2. If an STC holder has been satisfactorily applying the FAA Part 26 rule on repairs since its implementation: e.g. FAA form 8100-9 stage 1, 2, 3 approvals: is a new approval to be requested to EASA?

Answer:

In general, the DT data developed as described in this question represents an acceptable means of compliance with ageing aircraft requirements of Part-26. However, it should also be considered whether the data was also approved by EASA in compliance with an appropriate damage tolerance certification basis. If not, EASA will give maximum credit for those FAA approvals, but the data will need to be approved directly by EASA or recognized under the technical implementation procedures (TIP) as automatically accepted.

Q3: Baseline structure = as delivered model configuration. What about STC's that are implemented during production?

Answer:

The development of DT data for STCs affecting the fatigue critical structure is mandated by Part-26 requirements addressed to STC holders (refer to points 26.330 to 26.334) or, in case of structural changes embodied in the future, by the Certification Basis that will be applicable to the STC, refer to Reg. (EU) 2021/699 amending point 21.A.101 of Part 21.

Q4: Does the baseline structure include OEM production line repairs concessions MRB.

Answer:

Strictly speaking no. The repairs addressed in the regulation are those that take place after production in general terms, the TCH has to take care of any concessions or deviations according to their design and production processes and still ensure compliance with the certification basis. If the deviation is significant and the TCH process request it, the TCH may need a separate approval for the design work undertaken to rectify the deviation. The baseline structure is the Type Certificated structure defined by the type certificate data sheet (TCDS).

Q5: Are the REG's for example on a Boeing model (that meets the FAA ASSR / PART 26 requirements) accepted by EASA? If so, automatically? Do the TCH's individually have to apply for the review and approval of the REG?

Answer:

There is no automatic acceptance of REGs developed to meet the FAA ASSR requirements.

As a result, the TCH has to apply to EASA for the review and approval of its REGs. However, EASA expects that significant credit for the existing content will be given. Furthermore, this subject might be covered by future revisions of the technical implementation procedures TIPs. The specific issue with REGS is that because of the elapsed time between the introduction of the requirement in the US and the introduction of the requirement in the EU, these REGs may not have a completely appropriate or achievable timeline for the aircraft surveys. Although some operators in Europe may have implemented REGs in accordance with Part-M and AMC 20-20, there was no explicit mandate for REGs to be followed in Europe until Part-26 amendment introducing ageing aircraft structures rule. In some cases, the point at which surveys would need to be done according to some REGs has already been reached and therefore those REGs need to be revised. This revision shall also make it clear to operators that the REG can be used in Europe and it's approved by EASA. Once TCHs comply with the applicable parts of Part-26, EASA will revise the TCDS to state this.

Q6: Point 26.331: Shall a compliance plan be submitted to EASA by STC holders that do not hold structures in their DOA Scope of Work; and only owns STCs that are cabin related and do not introduce fatigue-critical modified structure (FCMS)?

Answer:

If the STC does not affect the Fatigue Critical Baseline Structure (FCBS) and does not introduce the Fatigue Critical Modified Structure (FCMS), the STCH would not be affected by ageing aircraft requirements introduced in Part-26. However, it should be considered that sometimes interior changes may affect the FCBS, for instance introduction of a galley, or of a large portable water tank, that does not use existing TCH or otherwise approved attachment points for which the allowable loads are known.

Q7: What if the STC Holder or the original design approval holder are no longer a going concern or have surrendered the approval?

Answer:

The operator would be obliged to look elsewhere to get approved DT data for modifications that embody those design approvals.

Q8: As STC Holders how can we obtain the list of FCBS?

Answer:

The TCH's are bound to make the FCBS list available. That may come with some arrangement being required, but typically we see the list of FCBS included in the structural repair manuals (SRMs). Unless a database with the necessary information is already available, or can be established conservatively by the STC holder, they should approach the TCH directly to obtain these info. The Agency will approve TCH FCBS lists, however the lists that have been produced to show compliance with CFR 14 Part 26 may already be available. In this case unless the TCH wishes to change the content due to specific reasons, EASA is not seeking to introduce changes to those lists and the EASA approval is expected to be straightforward.

Q9: Does the TCH have an obligation to provide an STCH the FCBS?

Answer:

In addition to the obligation is described in Part 21 for ICA (refer to point 21.A.7 or former point 21.A.61), there is a requirement in point 26.306(c) for TCHs to make the FCBS list available to third parties that have to comply with the with points 26.330 and 26.370 of Part-26. .

Q10: What happens if a change or repair creates the Fatigue Critical Structure that would ordinarily not be FCBS. Does it have to be included in the compliance plan?

Answer:

The repairs don't get listed as Fatigue Critical Structure. Some TCHs may state in their FCS lists that some structure only becomes FCS if modified or repaired. If a change creates Fatigue Critical Structure that isn't described in the FCBS list then the STC holder would have to include that in the list of FCMS.

Q11: When not sure if FCBS is affected by an STC, is there any Compliance Plan required?

Answer:

There is a time limit for the submittal of the Compliance Plan to EASA, so if an STC holder can't establish easily that an STC has no impact on Fatigue Critical Structure then a conservative approach should be implemented. This means that the subject STC will be provisionally included in the compliance plan and additional information on how to deal with it will be provided. If an STC holder is sure that there are no STCs affecting the FCBS, then there's no need to submit a compliance plan.

Q14: Applicability: 30 or more pax and PLD are those indicated in the TCDS and not those for which the STC applies to (e.g. VVIP with lower PAX and PLD compared to TCDS)?

Answer:

This interpretation is correct.

Q15: Does a Compliance Plan need to be submitted for each single STC, or may several STCs (from the STC holder) be combined in one Compliance Plan?

Answer:

One compliance plan can be used to address all STC approvals held by the STCH.

Q16: If an STC holder determines that its modification does not affect FCBS (or create new FCS), there is no action per your presentation. Is there any data that is needed to be presented to EASA to obtain EASA's approval for the no action determination?

Answer:

No. Subsequently, during an audit or if an operator or NAA identified one issue, something could come up and EASA would take action.

According to the EU regulation framework, design approval holders are responsible for the conduction of such evaluations.. Non-EU STCH located in the US should already hold compliant data for ageing aircraft regulation because of their compliance with CFR 14 under section 26.47. EASA can rely to a certain extent on these data and on a design approval holders to make their assessment correctly. However, STCHs should be conservative if they're not sure about the affect of an STC on FCBS.

Q17: Is there any difference between civil and private operation for 26.330?

Answer:

There is no difference at the level of requirements for STC holders in point 26.330.

However, for STCs that were approved prior to September 2003, the STCH can wait for a request from an operator subject to point 26.370(a)(ii), which only applies to operations under Part-CAT, before developing FCMS lists and performing a DTE.

Q18: In which way are the requirements of Part 26 applicable to non-European STC holders?

Answer:

The regulation is applicable to all holders of an EASA STCs affecting the FCBS of aeroplane categories defined in the regulation (including STCs adopted in 2003 according to the basic regulation), whether or not the state of design of the STCH is EU or non-EU.

Q19: In the organizations, things are evolving process, document types and also people are changing. In this context we hold the approval for two STC's, for which a F&DT was performed according to the available records, but the amendment level is not explicitly mentioned. The EASA STC numbers are available. How to make sure that the Part-26 requirements are met? Could we simply cross-check with the PCM? Or is it necessary to process a complete compliance plan?

Answer:

STCHs must submit a compliance plan for STCs that affect FCBS. From the way the question is phrased it would appear that a DTE was performed. STCHs should state in the compliance plan that they will check the applicable amendment of the damage tolerance requirements for the product, if any, and ensure that the DT evaluation performed satisfies the amendment acceptable for compliance with Part-26 (see CS 26.333 and 334).

Additional Note: CS 25.571 (b) damage tolerance evaluation, did not change in technical content from Amendment 1 to Amendment 18, so provided the product certification basis is not Amdt 19 or later (which is unlikely for changes affected by Part-26) then a DTE performed to CS-25 will potentially satisfy compliance for any STC subject to point 23.333 or 26.334. Furthermore JAR 25.571 (b) did not change from Change 7 to Change 16, which was adopted directly into CS-25 without technical changes. The only caveat that arises is that some of the referenced residual strength loads requirements have evolved over the years so some attention may be needed with respect to how those loads were established for an STC where the amendment is not specified.

Q20: Are there requirements in Part 26 applicable to major repair approval holders who are not TC holders?

Answer:

Yes. Published repairs to the STC are addressed under points 26.332 to 334. STCHs are not required by the regulation to take action on other reinforcing repairs that they might have issued individually to an operator. When the requirements were developed, EASA found the basis of the repair evaluation guidelines could be extended to non-TC Holder repairs. As a result operators may identify a repair issued by an STCH and ask for support from that STCH as Repair Approval Holder or may go to a third party to obtain DTI.

Q21: To confirm, while submitting the CP in Aug 2021, it is only for the changes approved after Sept 2003. If an operator contacts for this data, do we include the change from before Sept 2003 in the CP?

Answer:

No, according to point 26.331 a compliance plan (CP) is required for all STCs (or equivalent adopted changes) affecting FCBS. the STC holder does not have to list FCMS or perform DTE for changes approved prior to Sept 2003 unless requested by an operator.

Q22: What about "indirect" impact on a FCBS? In other words, if a "non-FCBS" needs further substantiation due to increase in static loads, does all the FCBS in contact with this "non-FCBS" shall be F&DT re-evaluated? (For example, a seat track load transferred to a cross beam)

Answer:

If by the STCH's own assessment the change would affect fatigue critical structure the STCH must comply with the requirements. As mentioned previously if static design loads of items of mass fall within TCH allowable loads for the points of attachment there should not be an issue.

Q23: An EASA approved STC is applied to aircraft which are nowadays operated in the US under FAA regulations. Does the F&DT still need to be performed? Or could we wait until an actual operator contacts us?

Answer:

The need to act depends on the date of issuance of the STC approval, see points 26.333 and 26.334. For STCs issued on or after 1st Sept 2003 the STC holder must perform and submit DTE unless it has already been completed and approved. For STCs issued prior to 1st Sept 2003, the STC holder can wait for an operator request. STC holders do not need to respond to operator requests under this regulation if the operator is not subject to point 26.370(a)(ii), however, the STC holder may be subject to foreign authority requirements as a holder of an STC approved by a non-EU state.

Q24: Has EASA determined the level of involvement from the authority of the state of design for compliance plan approvals?

Answer:

Where the regulations are equivalent, EASA expects that the compliance plan approval might be taken care of by the state of design, subject to further discussions and agreement. However, certain details might play a role in this consideration, such as the date of issuance of the STC.

Q25: If an STC affects FCBS and the F&DT assessment is determined to meet the current EASA AASR rules, do we have to document this review? Share it actively with EASA?

Answer:

The way in which an STC holder makes the assessment should be detailed in the compliance plan. Affected STC holders should check the completeness of the DT data or indicate the basis according to which the DT data can be considered as already complete.

Q26: Do all affected STCH needs to meet CS 25.571 amendment 19 and above?

Answer:

No, STC holders only need to perform damage tolerance evaluations according to the applicable Certification Basis of the product or JAR 25 Change 7 if the Cert Basis precedes Change 7 and FAR 25 Amdt 45 in cases where the TC basis precedes these amendments.

CS-25 Amendment 19 explicitly includes WFD evaluation, EASA is not expecting or requiring STCHs to perform the specific WFD evaluations required by CS 25.571 Amdt 19 under this Part -26 damage tolerance regulation unless Amdt 19 is in the Certification Basis or they elect to do so.

Q27: Does EASA have an equivalent of AC120-104?

Answer:

Yes, AMC 20-20A and the AMC 25.571 in book 2 of CS-25 contain similar content and should be considered when complying with Part-26 depending on the specific topic and compliance activity.

Q28: In summary, STC holders have to submit a compliance plan (CP) for all STC's that affect FCBS even if the STC's are already compliant with the F&DT requirements (as outlined in the EASA Part-26 rule, point 26.333)

Answer:

Correct, in the CP the STCH needs to commit to listing the STCs that effect FCBS, identifying and listing FCMS and confirm the DT data is complete and approved. STC holders do not have to re-submit the DT data if it is already approved and complete.