European Union Aviation Safety Agency

EWIS ICA requirements

In case the certification basis is CS-25 Amdt 5 (or later) according to part 21A.101 (i.e. STC is a significant change related to EWIS aspects or new product), will the EWIS ICA discriminant (>30 pax or >7,500 lb) still apply?

Answer

No, if the certification basis is the CS-25 Amdt 5 (or later), all the large aeroplanes covered by CS-25 shall have to demonstrate compliance with the EWIS regulations without exception.

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Link:
https://www.easa.europa.eu/en/faq/19430

Would EASA recommend to STC applicants to elect to comply with CS-25 Amdt 5 (or later) on a voluntary basis?

Answer

From a safety perspective this would be welcomed but from a practical point of view it may not be the best option when this is not required by Part 21. By electing to comply with CS-25 Amdt 5 (or later) all new requirements have to be complied with, which are not limited to SC H-01, CS-25 Appendix H paragraph H 25.5 and AMC Appendix H 25.5 paragraphs 1 and 6, EWIS ICA. Due to the nature of the new subpart H, this will induce additional justifications and possibly design changes and will affect the time needed to approve a project.

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Link:
https://www.easa.europa.eu/en/faq/19431

Are all the EWIS ICA from the TC holders' affected aeroplanes available by now (status July 2010)?

Answer

The TC holders for the affected aeroplanes have finalised their EZAP/EWIS ICA exercise. With a few exceptions to be soon resolved, final documents are approved by the FAA and accepted by EASA for all affected TC holders (EU/Non-EU). The approved EWIS ICA has to be made available to the affected persons. The EZAP analyses do not form part of the TC holders EWIS ICA.

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https://www.easa.europa.eu/en/faq/19432

Does a STC with an "EWIS limitation" still present affect the entry into service of an A/C it is fitted to?

Answer

If NAA during Airworthiness Review Meetings/Sessions of a product at entry into service of the Certificate of Airworthiness encounters that there are STCs for which “Limitation requiring updated EWIS ICA to be provided” has not been cleared yet in the relevant STC approval, they may contact EASA Certification EWIS Team (focal point Ms. Carla Iorio - carla.iorio [at] easa.europa.eu (carla[dot]iorio[at]easa[dot]europa[dot]eu)) for further clarifications on how this can affect aircraft operations.

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When is the Special Condition SC H-01 “Enhanced Airworthiness Programme for Aeroplane Systems - ICA on EWIS” applicable to the Non-EU STCs to be validated by EASA?

Answer

Non-EU STC applications sent to EASA for validation after 1st of January 2009 will have to evaluate if it is needed to comply with the Special Condition H-01 **irrespectively** of the date of application to the Primary Authority.

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Link:
https://www.easa.europa.eu/en/faq/19440

What is the Special Condition H-01 “Enhanced Airworthiness Programme for Aeroplane Systems - ICA on EWIS”?

Answer

Please find attached the text of the SC H-01 as amended after public consultation and introduced in the STC (TC) Certification Basis through the CRI H-01 where applicable. Refer also to Question “Will we need to amend the TC basis for each type to include this CS-25 requirement and publish in amended TCDSs?”

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https://www.easa.europa.eu/en/faq/19439

On which basis / requirement the Agency has requested TC holders to develop EWIS ICA?

Answer

New and revised certification specifications were introduced through CS-25 “Certification Specifications for Large Aeroplane” amendment 5 with a new Subpart H – Electrical Wiring Interconnection Systems – EWIS. The new amendment has been published as part of the ED Decision No. 2008/006/R on the 29th August 2008 and enters into force on September 5th, 2008.
The requirement for existing TC holders to develop EWIS Instructions for Continued Airworthiness (ICA) derived from the Enhanced Zonal Analysis Procedure (EZAP) is imposed through the provisions of Part 21A.3B(c)1 for existing TCs, 21A.21(c)(3) for applicants for TC and 21A.103(a)(2)(iii) for applicants for changes to TC. TC holders have been notified of the applicability of those provisions through a dedicated letter that was sent in October 2008. This letter gives further details on the affected aeroplanes (see Question "The letter dated 07.01.2009 (the letter sent by DOA Section) specifies certain aircraft class in the footer. Where can we find this specified in a current regulation?"), deliverables and compliance dates.
Note: The Agency has used this letter in the absence of a regulatory tool similar to FAR Part

26.

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Link:
https://www.easa.europa.eu/en/faq/19417

On which basis / requirement the Agency is requesting a STC Applicant to evaluate if a revision to EWIS ICA is necessary?

Answer

New and revised certification specifications were introduced through CS-25 “Certification Specifications for Large Aeroplane” amendment 5 with a new Subpart H – Electrical Wiring Interconnection Systems – EWIS. The new amendment has been published as part of the ED Decision 2008/006/R on the 29th August 2008 and enters into force on September 5th, 2008.
For STC applications received after Jan. 1st 2009, the Agency is mandating the EZAP related aspects dealing with Instructions for Continued Airworthiness of these requirements through a generic Certification Review Item with a Special Condition based on Part 21A.16B(a)3 that will be therefore part of the Certification Basis for that STC.
Potentially affected applicants have been advised through a dedicated letter that was sent in October 2008, giving further details on affected aeroplanes, deliverables and compliance dates.

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Link:
https://www.easa.europa.eu/en/faq/19418

Are these requirements applicable to any major design change or only to significant or substantial change where the latest requirements must be considered (according to Part 21A.101)?

Answer

For TC holders for the affected aeroplanes, EWIS ICA requirements are applicable to any changes to TC.

For STC applicants for the affected aeroplanes, due to the nature of the tool used (Special Conditions levied on STC applications received), applicability of EWIS ICA requirements will be

limited to new STCs or major changes to STCs. This is applicable to the transition period until the TCDS of the affected aeroplane is updated.

It also means for an STC applicant, that when the SC regarding EWIS ICA is in the TCDS, all changes (major/minor) need review on necessity of revision of EWIS ICA.
(see also Question “Will we need to amend the TC basis for each type to include this CS-25 requirement and publish in amended TCDSs?” which gives further guidance on the TCDS.

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Link:
https://www.easa.europa.eu/en/faq/19419

The letter dated 07.01.2009 (the letter sent by DOA Section) specifies certain aircraft class in the footer. Where can we find this specified in a current regulation?

Answer

The affected aeroplane types are indicated in the letters sent to all affected TC holders and potential STC applicants. The affected aircraft types are large aeroplanes with a type certificate issued after 1st January 1958, that, as a result of original type certification or later increase in capacity, have -
a maximum type-certificated passenger capacity of 30 or more; or
a maximum payload capacity of 3402 kg (7500 pounds) or more.

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Link:
https://www.easa.europa.eu/en/faq/19420

Some aeroplane types are explicitly excluded from the similar FAA rule (FAR 26.11(g)). Are these types also excluded from EASA requirements?

Answer

No, EASA does not have a “pre-defined” list of excluded aeroplane types (similar to FAR 26.11(g)). On a case-by-case basis, the TC Holders for the affected aeroplanes may ask the Agency to accept a non-compliance with EWIS ICA requirements.

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How can we as DOA identify if an aircraft model is applicable or otherwise has been made compliant (by means of a retroactive requirement) to this rule? Will it be entered into the TCDS or will there be an AD requiring that or does each individual DOA has to find its own way through it by going through the ICA documentation?

Answer

The Agency is considering making public (possibly through the web site) the list of aeroplane types for which EWIS ICAs have been produced. The exact form has not yet been defined. Plan is also to have Special Condition formalised and referenced in the TCDS of the affected product.

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https://www.easa.europa.eu/en/faq/19422

How will the EWIS/EZAP assessment affect minor modifications and repairs for TCs/STCs and if the requirements are found to be applicable would this affect their classification (e.g. minor becomes major)?

Answer

Applicability to changes for TCs/STCs is addressed in Question “Are these requirements applicable to any major design change or only to significant or substantial change where the latest requirements must be considered (according to Part 21A.101)?”

By principle, the classification of the change is driven by Part 21A.91. The fact that EWIS ICA may be revised is not in itself a driver for the classification.

It must be noted that for FAR Part 26 compliance, the FAA requires that if the change needs a revision to the previously developed and approved EWIS ICA, then the revised EWIS ICA must be submitted to the foreign CAA (for non-US products) for approval, independently of the

minor/major change classification.

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We anticipate that a CRI may be needed for each STC because of the need to at least have the applicants use the checklist. Has EASA considered the effect on the hours to be allocated for each task to include the extra work? In addition may this not also affect the classification of an STC from Simple to Standard because of the need to include an electrical specialist each time?

Answer

The effect of extra work and additional hours needs to be accounted for.
Simple STCs may be subject to change from “simple” to “standard” due to an EWIS impact.
Nevertheless, not all STCs affected by EWIS become automatically standard.
Classification between simple/standard will be managed according to the processes in place and the possible need to involve more than one Panel for this specific task.

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Link:
https://www.easa.europa.eu/en/faq/19424

To avoid the extra workload would it not be an idea to have EU DOAs include consideration of the ICA requirements as part of their procedures? This would make EWIS part of their normal practises?

Answer

Yes, this is under consideration.
For TC Holders determination of impact of modifications on EWIS ICA is left to the applicant (no systematic check for each mod.). This assumes that the appropriate DOA procedures are in place and have been checked by EASA.

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Link:

https://www.easa.europa.eu/en/faq/19425

Will we need to amend the TC basis for each type to include this CS-25 requirement and publish in amended TCDSs?

Answer

Yes, the plan is to use the CRI Process and Special Condition tool and make it become part of the Certification Basis.
The intent of those CRIs and the Special Condition that will be attached is to complement the letters that have been sent to the Design Approval Holders, not to replace them. Their objective is to state in an easily identifiable manner the certification basis to ease future modifications and STCs. Objective is to have that in place as soon as possible. The exact timing of this incorporation for all affected products is controlled per program. Expectation is that this will take place until the end of 2010. This will save the need to issue a SC for each assuming this SC (H-01) is clearly identified in the cert basis/TCDS of the affected aeroplane.
Note: The TCDSs can be found on the here.

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Link:

https://www.easa.europa.eu/en/faq/19426

The 07/06/10 deadline date for STC applicants - how will this be managed by EASA if the STC has already been issued. Will a new project be needed to allow the teams to review the ICAs?

Answer

Yes, once the STC was considered affected by the new rules and a revision of EWIS ICA was considered to be potentially necessary, the certificate was issued with a limitation. This limitation states that the STC holder shall submit to the Agency the final EWIS ICA for the STC by 7th of June 2010.

To remove the limitation, the STC holder has to apply for a Major Change to the STC. EASA expects the applicant to provide an analysis substantiating that revisions to the EWIS ICA are not needed or provide updated/new EWIS ICA documents with associated justification.

It is expected that the STC certificate will be reissued with no limitation at the conclusion of the process.

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Link:
https://www.easa.europa.eu/en/faq/19427

Once a STC holder has applied for a Major Change to the STC to remove the limitation stating that the STC holder shall provide the final EWIS ICA for the STC by 7th of June 2010, what is the expected timeframe for the EASA acceptance?

Answer

EASA is currently working on these tasks on removing the limitations (status July 2010) and the applicant will be contacted as soon as practical directly from the involved team.
It must be noted that an important number of applications have been received, which need to be processed in parallel and also need coordination.

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If there are two or more modifications being embodied at the same time - e.g. cargo conversion - how will EASA ensure that each applicant checks the effect of their design change on the aircraft and on each others modification's?

Answer

The question is a practical one and also applicable to other aspects of certification than EWIS ICAs. EASA should point out to the applicants any concurrent application that may impact the validity of the EZAP analysis.

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Link:
https://www.easa.europa.eu/en/faq/19429

Can an applicant use FAA's AC 25-27A, notably Appendix B for the handling of design changes?

Answer

The FAA has published a new issue of the AC 25-27 (rev.A) on the development of EWIS ICA using the EZAP analysis. The revised AC intends, among others, to provide more clarity for applicants seeking approval of a design change when one has no access to the TC holder's EZAP analyses. It means the availability of TC holder's EWIS ICA is sufficient for the STC applicants to assess/develop EWIS ICA for their change. EASA recognises the use of this AC as an acceptable method of compliance for the assessment of design changes.

The Appendix B in the AC 25-27A contains new flowcharts, leading through the process of determining EWIS ICA step by step. First, the applicant must determine if revised or new EWIS ICA are potentially necessary. If this is the case, the applicant has two ways to continue in the flowchart, depending whether the TC holder's EZAP analysis in the affected zone is available to him or not. Detailed questions in the flowchart help the applicant in the creation of tasks specific to the design change.
The STC applicant has always to make sure he has the latest (current) TC holder's EWIS ICA for the affected zone.

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Link:
https://www.easa.europa.eu/en/faq/19433

For STC to be certified after the 7th of June 2010, what are the dates EASA would require EWIS ICA to be available?

Answer

For STCs (and changes) certified after the 7th of June 2010, the EWIS ICA (for affected products) must form part of the data package submitted for approval of the STC. The impact on EZAP/EWIS ICA has to be analysed and updated EWIS ICA, if needed have to be provided at the time of approval of the STC.

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Link:

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What documents need to be transmitted by the STC applicant to EASA for the aspect of EZAP/EWIS ICA?

Answer

For design changes that do not require a revision to the existing EWIS ICA, a statement and justification explaining the rationale for the “no change to EWIS ICA” is expected in accordance with the available guidance material.
If the process identifies that new/updated tasks are needed, they must be clearly identified as EWIS ICA tasks. The EWIS ICA should be submitted to EASA as part of the compliance demonstration. The associated justification can be, for instance the updated EZAP analyses or an analysis in accordance with Appendix B in FAA’s new AC 25-27A, when the TC holder’s EZAP analysis of the affected zone is not available to him.

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https://www.easa.europa.eu/en/faq/19435

Which are the CS-25 affected aircrafts for which the Special Condition SC H-01 "Enhanced Airworthiness Programme for Aeroplane Systems – ICA on EWIS" is applicable?

Answer

The CS-25 affected aircraft for which the SC H-01 is applicable are reported in the attached document.

CS-25 aircrafts where EWIS ICA requirements are made applicable through CS-25 Amendment 5 or higher, irrespectively of the a/c maximum passenger capacity or the maximum payload capacity, are not part of this list.

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Link:

https://www.easa.europa.eu/en/faq/19437

What is the official letter sent by EASA regulating the European EWIS Rules for the STC Holders?

Answer

Please find in attachment the requested letter.

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Link:

https://www.easa.europa.eu/en/faq/19438