CRI and CAI writing and management

WI.CERT.00146-003

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DOCUMENT CONTROL SHEET

Reference documents
a) Procedures
PR.CERT.00001 - Airworthiness of type design
b) Internal documents
WI.CERT.00057 - Publication and Consultation of Certification Memoranda, Special Conditions, Equivalent Safety Findings and Deviations TE.CERT.00074 - CRI Template FO.CERT.00161 - Applicant's "Request for a Deviation" FO.CERT.00162 - Applicant's "Request for an Equivalent Safety Finding"

Abbreviations/Definitions
a) Abbreviations CAI: Certification Action Item CB: Certification Basis CM: Certification Memorandum CP: Certification Programme CRI: Certification Review Item CS: Certification Specification DEV: Deviation DOA: Design Organisation Approval EASA: European Union Aviation Safety Agency EU: European Union ESF: Equivalent Safety Finding EtC: Elect to Comply IM: Interpretative Material MS: Member State MOC: Means Of Compliance NAA: National Aviation Authority PCA: Primary Certification Authority PCM: Project Certification Manager QE: Qualified Entity SC: Special Condition SM: Section Manager TCDS(N): Type Certificate Data Sheet (Noise) WI: Work Instruction

Log of issues		
Issue	Issue date	Change description
001	16/06/2020	First issue.
002	26/03/2024	Introduction of - Highlighting checks for efficiency at the beginng of the CRI process in chapter 2.4 - Clarification to Deviations - Added 2.1.7.1 “improved design feature” as specific kind of reversion, - New CRI reference system - SEPIAC Master CRI Repository as the single source CRI database - General clarifications, wording improvements and slight rearrangement of content
003	28/10/2024	Chapter 2.1.3, item 7: Update of the environmental protections requirements by ICAO Annex 16 Volume III for CO_2 emissions and deletion of CS-34, CS-36 references based on updated Regulation 2018-1139 Article 9 and 21.B.85 Chapter 2.3: Clarification regarding classified or export controlled applicant content

Table of Contents

1. Introduction

This instruction explains the use, writing and management of Certification Review Items and Certification Action Items.

2. Certification Review Item (CRI)

A Certification Review Item (CRI) is a formal administrative means within the certification process and provides a structured means of recording subjects as listed in 2.1 regarding the certification basis and its interpretation throughout a certification project.

The CRI process also establishes a means to formally record the positions for significant issues between EASA, the Applicant, and a third country National Aviation Authority if EASA is acting as validating authority of a foreign product.

The general workflow for CRIs is defined in the Procedure Airworthiness of Type Design.

2.1. CRI Categories

The categories of CRI's are the following:

- Admin : administrative or process related CRIs: such as CRI A-05, CRI A-08
- Certification Basis: CRI A-01, for recording of the certification basis (Part 21.B.80, 21.B.82, 21.B.85) and corresponding IM /MoC
- SC: Special Condition (ref. 21.B.75 and 21.A.101(d),)
- ESF: Equivalent Safety Finding (ref. 21.B.80(a)(2)21.A.101(e)(1)(i))
- Deviation: Deviation from the Certification Specification (ref. 21.B.80(a)(3), 21.B.82(a)(2), 21.A.101(e)(1)(ii),)
- Reversion: Reversion (ref. 21.A.101)
- Elect to Comply (EtC): Refer to 21.B.80(a)(1), 21.B.82(a)(1)21.A.101(f),
- IM / MoC: Interpretative Material / Means of Compliance

Note 1: SCs, ESFs and Deviations are formally part of the Certification Basis and shall be listed in the TCDS (according to the related instruction and template). Reversions and Elects to Comply are as well formally part of the Certification Basis but shall be listed in the TCDS by the CS reference and amendment only without mentioning the words "Reversion" or "Elect to Comply". (The information of reversion or elect to comply is not necessary for the public domain and led to wrong assumptions in the past)

2.1.1 CRI A-05, Type Design Definition (optional)

CRI A-05 is an optional CRI and may be raised to request the applicant to describe how the type design is defined in accordance with Part 21.A.31 and how the Configuration will be managed for subsequent changes. CRI A-05 should contain a list of documents, a link to a list of documents, or a combination of both, reflecting the data necessary to identify the type design. This CRI is (not only but) typically raised for applicants having no DOA. (CRI A-05 Template).

2.1.2 CRI A-08, Standards Differences and EASA Level of Involvement for Validation

CRI A-08 is established for validation projects only. It records Standard Differences, validation items and establishes the EASA level of involvement based, amongst others, on differences in the applicable Certification Specifications, in their interpretation and in the Means of Compliance.

CRI A-08 usually details the following:

- Significant Standard Differences (SSDs) i.e. EASA certification specifications that have no PCA equivalent, which result in a difference that may require type design changes, approved manual changes, or the imposition of operational limitations to meet the EASA certification basis;
- Validation items: items of the certification basis, design or MoC that are of particular interest to EASA to warrant VA involvement beyond technical familiarization.
  Note: The term “Validation Items” is referred in previous EASA/FAA TIP and not referred in TIPs with TCCA and ANAC.

Each and every item listed in CRI A-08 should be indicated as either “Delegated or Retained”.

Retained items are those items for which EASA has retained involvement in the verification of the compliance demonstration by the applicant. CRI A-08 is therefore a summary document defining the involvement of the EASA Team in the verification of compliance demonstration, which is usually defined in more detail in CAIs.

It is assumed that for many of the topics listed in CRI A-08, there exists a good understanding of the PCA and so within the spirit of the applicable Bilateral Agreement, EASA looks to delegate the majority of the verification of compliance demonstration activities to the PCA.

For validations with FAA, CRI A-08 is replaced by the Validation Work Plan covering the same intent.

2.1.3 CRI A-01 Certification Basis

The EASA Certification Basis of a product shall be established in accordance with Part 21.B.80, 21.B.82, 21.B.85 and 21.A.101.

During a certification project, a CRI A-01 is the document that records the product’s Certification Basis (type certification basis, operational suitability data certification basis and environmental protection requirements), with the relevant MoC and IM, and all relevant discussions between the applicant and EASA on these subjects.

A CRI A-01

- Shall be systematically issued for a Type Certificate and a new model of a type. In these cases the CRI A-01 shall cover the complete certification basis.
- Should be issued for significant changes to TC. Nevertheless, the PCM may agree with the team and the applicant that a new CRI A-01 is not necessary if no discussion on the certification basis is needed (e.g. the CS amendment at the date of application is proposed by the applicant and accepted by EASA without the need of any discussion).
- Might be issued for non-significant changes to TC if deemed necessary by the PCM.

The CRI A-01 is a project specific CRI which is not intended to be updated after TC or approval of a change.

While the CRI itself will chronologically record the EASA and applicant’s positions, the actual certification basis should be recorded in appendix A, the latest interpretative material and means of compliance should be recorded in appendix B. The positions should explain the changes to the appendices for the reason of traceability. The content of appendix A will be part of the TCDS after approval but the TCDS shall not make reference to the term “CRI A-01”.

The need for Special Conditions, Equivalent Safety Findings and Deviations (ref. Article 3.2 of MB Decision 12-2007) should be identified based upon the data presented during the technical familiarisation. If available, the CRI Repository/ies should also be used.

The appendix A of a CRI A-01 consists of the following items:

1. Applicable Certification Specification (CS) determination

   The applicable Certification Specifications (including CS-AWO, CS-ACNS, if applicable, and including CS Definitions) established by the Agency that are effective on the date of application for that certificate as specified by point 21.B.80.

   As per points 21.A.15(e) and 21.A.93(c), an application is valid for 5 years for Large Aeroplanes and Large Rotorcraft and for 3 years for all other products. An extension of the time period, associated with a shift of the reference date for application, may lead to an updated certification basis. The applied amendment of the certification specifications shall not be older than 5 respectively 3 years calculated backwards from the date of approval according to point 21.A.15(e) and 21.A.93(c).

2. Reversions to an earlier amendment level of the CS (see 2.1.7)
3. Elect to comply with a later amendment level of the CS (see 2.1.8)
4. Special Conditions (see 2.1.4)
5. Equivalent Safety Findings (see 2.1.5)
6. Deviations (see 2.1.6)
7. Environmental Protection requirements

   If applicable, the Environmental Protection requirements should be established as per point 21.B.85 for noise and emissions, which are prescribed according to the provisions of the Chicago Convention in the relevant Parts and Chapters of ICAO Annex 16 Volume I for noise, Volume II for fuel venting and emissions and Volume III for CO_2 emissions.

8. Operational Suitability Data requirements

   If applicable, the Operational Suitability Data Certification Specifications (CS-FCD, CS-MMEL/CS-GEN-MMEL, CS-SIMD, CS-CCD, CS-MCSD) and Special Conditions should be established as per point 21.B.82.

   NOTE: While it is acceptable that the application for OSD elements may come later than the application for TC, the reference date for the definition of the applicable amendment of the OSD certification basis is defined by the date of application for TC.

The appendix B of a CRI A-01 consists of the following items:

1. IM / MoC

   Interpretative Material or Means of Compliance material is not considered as part of the Type Certification basis. They might, however, have a significant impact on the design and on the compliance demonstration and should be identified as early as possible. Therefore, they are listed in appendix B of CRI A-01, and each of them may be documented in a dedicated CRI if additional discussion is needed, unless they are already available as AMC/GM/CM (see 2.1.9).

2. Others

   It is also usual to record in the appendix B of CRI A-01 any other regulatory material such as FAA Advisory Circular, Temporary Guidance Leaflets (TGL) or Temporary Guidance Material (TGM) issued by the JAA before the creation of EASA and which are still relevant for a certification project.

Article 77 (1)(a) and Article 77 (1)(d) of Regulation (EU) 2018/1139 mandate the Agency to establish the certification basis for which a type certificate or a change to a type certificate is requested, to establish the appropriate environmental protection requirements for each product for which environmental certification is required in accordance with Article 9 of Regulation (EU) 2018/1139 and to notify these to the applicant.

As per MB Decision 12-2007, Article 7, the initial Type Certification Basis, including the applicable operational suitability data certification basis and the applicable environmental protection requirements, shall be formally notified to the applicant including the possibility for appeal. This is valid for each initiation and update of a certification basis and achieved via the use of the CRI templates that include the footer:

Resolution of disagreements should be performed in accordance with the procedure as specified in Article 18 of the MB Decision No 12/2007
After decision of the initial certification basis including the environmental protection requirements, the applicant has the right to appeal against this decision in accordance with Articles 108-114 of Regulation (EC) No 2018/1139. Instructions for appeal can be found on the EASA website

As soon as a CRI A-01 is established by the PCM and experts team, and the EASA position is included in the CRI, it should be coordinated with the relevant certification Section Manager for review and for endorsement.

For new types and models the applicant shall be notified by the PCM of the initial certification basis and final certification basis after review and signature by the relevant certification Section Manager. For significant changes the same applies if a CRI A-01 is established.

The CRI A-01 issuance with the Initial Certification Basis should correspond to the completion of Phase I of the EASA Certification Procedure.

The aim of the initial CRI A-01 is to provide a meaningful initial certification basis, i.e. when the majority of CRI subjects are identified, even if the CRIs are not yet released, or even, if applicable, the CPR analysis discussion is not yet closed.

It is advised that the CRI A-01 at the initial issue contains an exhaustive list of identified CRIs that apply to the project based on the familiarization of the EASA team with the proposed design. Further CRIs may be added later during the project (Quote from EASA MB 12-2007: “The initial certification basis shall be changed as necessary to address new applied technologies, introduction of design changes, discovery of unsafe conditions. The process for such changes is the same as for the establishment of the initial certification basis.”). If parts of the initial certification basis still require a public consultation, this shall be identified in the CRI A-01.

The CRI A-01 issuance with the Final Certification Basis is part of the final phase of the project.

The internal endorsement of the initial and the final CRI A-01 by all relevant parties shall be traceable (e.g. recorded notes of internal meeting; internal communication; e-mail).

All intermediate amendments or issues of CRI A-01 shall be traceable as well, although formal endorsement is not necessary. The PCM will inform the relevant certification Section Manager of any significant amendment of the initial certification basis or any controversial issue with the applicant/validating/certifying authority regarding that amendment of the initial certification basis.

2.1.4 Special Condition (SC)

The legal basis for a SC is given by point 21.B.75.

The EASA position should properly justify why at least one criteria of point 21.B.75 is met and reference should be made to the Special Condition in appendix A (Technical Subject) for the detailed specifications.

A SC mostly refers to existing CS and specifies a certain element of a product. A SC may also specify a complete product certification basis for which no CS exist.

NOTE: According to 21.A.101 (d) a special condition might be raised for changes to type certificate, if the proposed type-certification basis does not provide adequate standards for an area, system, part or appliance related to the change and no adequate certification specification or standard exist in any subsequent amendment of the applicable certification

specification up to the certification specification in effect on the date of the application for the change. The level of safety intended by the special conditions should be consistent with the agreed type-certification basis. See also chapter 4 of GM 21.A.101 (subsection 3).

2.1.5 Equivalent Safety Finding (ESF)

The legal basis for an ESF is given by point 21.A.101(e)1.(i) and point 21.B.80(a)2.

An ESF records if the applicable certification specifications or special condition literally cannot be complied with, either in part or fully, but the safety intent of the requirement can be met by compensating factors, i.e.

- alternative requirements to the CS, or
- dedicated characteristics of the design and/or procedures

that ensure an equivalent level of safety.

Note 1: The EASA type certification basis is defined by EASA on the basis of certification specifications and special conditions. Therefore, an ESF needs to be requested by an applicant in a written form, the EASA form FO.CERT.00162 on the EASA website for “Airworthiness of Typen design" should be used for this purpose .

Note 2: The wording “Equivalent Safety Finding = ESF” should be used for this type of CRI for the reason of standardisation. It has the same intent as the FAA ELOS.

2.1.6 Deviation (DEV)

The legal basis for a Deviation is given by the article 3 of EASA MB 12-2007 and point 21.A.101(e)1.(ii), point 21.B.80(a)3.(i) and point 21.B.82(a)2 and should be an exceptional means.

A Deviation records that the level of safety, targeted by the essential requirements of the Basic Regulation, is achieved through mitigating factors although the proposed design does not comply with the certification specifications or special conditions, neither literally nor with its intent. Mitigating factors shall address the identified non-compliances.

Mitigating factors might be e.g. operational and/or airworthiness limitations, inspections, limitations to the number of flight hours or flight cycles and/ or aircraft serial numbers. Limitations* might be combined with alternative requirements to the CS, or dedicated characteristics of the design and/or procedures that ensure compliance to the essential requirements.

The essential requirements, associated with the CS or SC to which compliance cannot be demonstrated, shall be clearly identified in the DEV CRI. The applicant shall demonstrate compliance to those essential requirements via introduced mitigating factors.

A deviation and TC, major change or STC approval cannot be simply time limited. It cannot be justified why a design is compliant at the time of approval but not anymore afterwards at a certain point of time**. The compliance might be dependent on conditions like loads, environmental conditions, operational conditions, probabilities, etc. If compliance is based on probabilities, such probabilities need to be quantified in a conservative way, e.g. by FH, FC, aircraft serial numbers based on assumed aircraft lifetime, FH or FC, number of aircraft, etc., but a time period unrelated to the usage of the TC, major change or STC is not appropriate since there could be in the same time period e.g. a few flight cycles or thousands of flight cycles. A time limitation by a certain date or a number of days, months or years is therefore considered as not adequate if it is not related to a design aspect as e.g. ageing effect of a material.

*Note 1: Note: A deviation includes usually conditions and/or limitations as mitigating factors that reduce the usability of the product so that the approval holder introduces post-approval changes to eliminate such conditions and/or limitations.

**Note 2: Furthermore, a deviation is part of the certification basis and the certification basis cannot be time limited.

Note 3: The EASA type certification basis is defined by EASA on the basis of certification specifications and special conditions. Therefore, a DEV needs to be requested by an applicant in a written form, the EASA form FO.CERT.00161 on the EASA website for “Airworthiness of Typen design" should be used for this purpose.

Note 4: A DEV might be accompanied by a CAI that defines the applicant’s post TC action and schedule to achieve compliance with corresponding CS, SC or ESF.

Note 5: The difference to an FAA exemption is that the type certificate or change to type certificate needs always be compliant with the essential requirements of the basic regulation.

Note 6: The CRI template with specific guidance for a DEV shall be considered.

2.1.7 Reversion

As per Part 21.A.101(b)(c) an applicant may revert to an earlier amendment of the applicable certification specification (see figure 1).

In most cases there is no need to raise a specific Reversion CRI. A CRI may be raised only if there is a need to record a discussion on the perimeter of a Reversion, e.g. discussion on partial reversion, reversion with conditions, etc.

A Reversion to an earlier amendment of the CS shall lead to a consideration of any potential inconsistencies/ incompatibilities to any other related CS.

A Reversion shall be recorded in the CRI A-01, Certification Program and/or Change Product Rule Analysis.

Finally the CS and its amendment(s) shall be recorded in the product TCDS or STC, as applicable. It shall not be referenced as dedicated “Reversion” but as the applicable CS paragraphs with the reverted amendment and condition(s) if applicable. The justification and term “reversion” is in the CRI only.

2.1.7.1 Improved Design Feature

A specific case and last resort of a reversion tool is described as per GM 21.101 (3.10.1.1 Improved design features) if the compliance to the CS amendment at the date of application:

- does not contribute materially to the level of safety (in relation to its practicality) compared to the safety level of the actual design but
- does contribute materially to the level of safety (in relation to its practicality) compared to the safety level of an earlier CS amendment.

Improved Design Feature means an improved safety level compared to the otherwise applicable CS amendment.

In such case the description of the design feature that allows the design feature to be maintained shall be implemented in the TCDS or STC, i.e. the certification basis references the CS paragraph at the earlier amendment associated with these described design features.

In this case, the applied reversion is conditional on certain installed design features. Background is the 21.A.101 process, especially the steps 7 and 8 of the GM 21.A.101, Figure 3-1.

- Step 7: Does the latest standard contribute materially to the level of safety (compared to the actual design in place)? Decision “No”, therefore reversion to an earlier amendment of an applicable CS paragraph
- Step 8: Is the certification basis adequate? Decision “No”, therefore minimum design features to be described. These minimum design features are no reversion in itself but additional minimum conditions to make the certification basis adequate and to which the certification basis is reverted. These design feature are part of the certification basis and described in the TCDS or STC.

If the description of design feature is invalidated by a subsequent change, the basis for the reversion in the change project is invalidated and therefore the reversion is invalidated as well. Any change or repair to the described design

features that would decrease the safety level would lead therefore to an invalidation of the reversion. The CS amendment at the time of application is to be used as the starting point applying 21.A.101.

This specific kind of Reversion CRI is named “Improved Design Feature” and should be referenced as such in the Appendix (Technical Subject) of the Reversion CRI and in the TCDS.

Example: A330-841, A330-941 regarding CS 25.963I(1) plus described design features.

2.1.8 Elect To Comply (EtC)

As per Part 21.A.101(f), 21.B.80(a)(1) or 21.B.82(a)(1) an applicant may elect to comply with a later amendment of the applicable certification specification than the amendment that was in force at the date of application (could be either the full set of CS or a selection of them).

Note: An Elect to comply with a later amendment could be beneficial for the applicant as it usually provides a margin with the duration (3 or 5 years) allowed for type certification under Part 21.A.15(e) and 21.A.93(c).

An applicant cannot elect to comply with an NPA or Opinion. If material contained in an NPA/CRD or an Opinion is intended to be used, the corresponding material should be introduced as per SC, ESF, or IM/MoC, as relevant.

In most cases there is no need to raise a specific EtC CRI. A CRI may be raised only if there is a need to record a discussion on the perimeter of an EtC, e.g. on the need to comply with an associated certification specification that the Agency finds directly related to an EtC (21.B.80(a)(1), 21.B.82(a)(1))

An Elect to Comply shall be recorded in the CRI A-01, Certification Program and/or Change Product Rule Analysis.

Finally it shall be recorded in the product TCDS or STC, as applicable. In the TCDS respectively STC it shall not be referenced as dedicated “Elect to Comply” but as the applicable CS paragraphs with the elected higher amendment and condition if applicable since it is formally part of the Certification Basis and shall not be misinterpreted as a voluntary requirement for later changes.

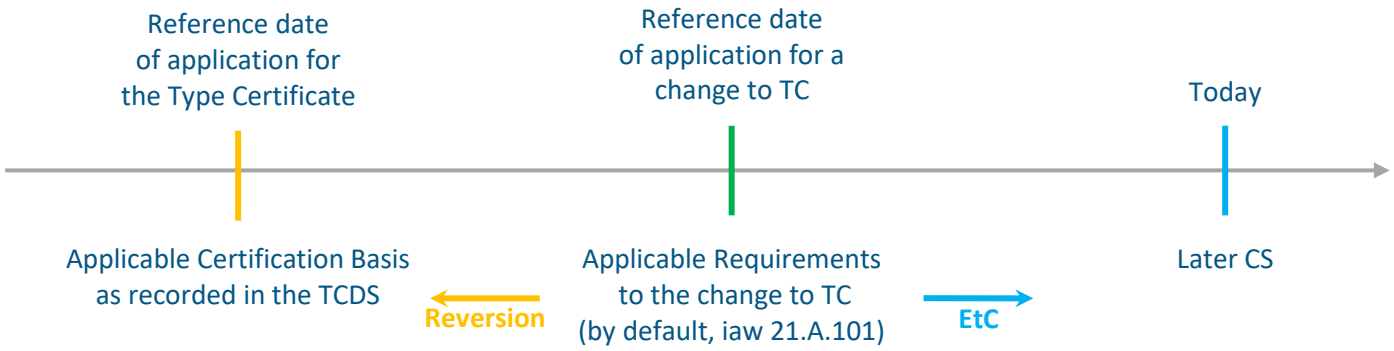


Figure 1

2.1.9 IM / MoC

A Means of Compliance (MoC) CRI describes the means and method how compliance will be demonstrated to an applicable CS, SC, ESF, DEV in an acceptable way. An Interpretative Material (IM) CRI provides additional guidance for a better understanding of an applicable CS, SC, ESF, DEV. A CRI might address Interpretative Material and Means of Compliance at the same time.

An IM or MoC CRI shall not introduce new or alleviate applicable CS, SC, ESF, DEV.

Usually there is no need to raise an IM or MoC CRI if the corresponding content is already published by EASA (e.g. AMC/GM or Certification Memorandum) or agreed by EASA (e.g. published by other airworthiness authorities, JAA, industry standards, etc.). In this case the applicant should directly refer to the subject material in the Certification Programme.

A CRI can be raised in the following cases:

- the applicant proposes to use published material only partially or with considerable changes to its content; and
- to record a discussion and resolution of a relevant subject between EASA and an applicant (e.g. disagreement on interpretation of requirements, etc.);

NOTE: AMC is a non-valid CRI type. AMC can only be published by EASA through a rulemaking process.

2.2. Numbering of CRIs

A unique reference is established for each CRI subject by the SEPIAC Master CRI Repository. The seven digit core number is identical for all related documents, the up to four digit prefix defines the related documents. Project related CRI and the individual project related Technical Subject (TS), i.e. SC, ESF, IM, etc. are additionally identified by the ten digit SAP project number. The related documents and its unique references are:

1. Master Certification Review Item: MCRI-XXXXXXX
2. Master Technical Subject: M-TS-XXXXXXX
3. Consultation Paper: CPTS-XXXXXXX
4. Comment Response Document: CRD-XXXXXXX
5. Project Certification Review Item: PCRI-XXXXXXX-YYYYYYYYYY
6. Project Technical Subject: P-TS-XXXXXXX-YYYYYYYYYY

The reference is automatically provided in SEPIAC by the establishment of the Master CRI.

The administrative and certification basis CRIs A-01, A-05, A-08 shall be complemented by the 10 digit SAP project number since there can be only one of those CRIs per project

- A-0X-YYYYYYYYYY

2.3. Master CRI Repository

The Master CRI Repository in SEPIAC is the single source database for the issuance of project CRIs where the latest version of a CRI subject is to be located. (Classified or export controlled applicant content might be located by other means)

All drafting, commenting, development is to be done in SEPIAC to ensure traceability and to ensure that all certification staff is aware of the latest developments. To ensure traceability and awareness, it is mandatory to fill the metadata fields in SEPIAC (click on "…" and again "…" and properties). The data is automatically filled in the CRI template afterwards.

The Master CRI Repository in SEPIAC is for EASA/NAA/QE usage only and should include information pages at the beginning of the Master CRI with internal information as e.g. level of maturity, need for updates, references, applicability/limitations, change record, internal person to contact for the technical subject. Such information pages shall be deleted when the master CRI is copied into a Project CRI.

2.4. CRI Process

A general objective is to identify any subject that shall be addressed by the means of a CRI early in a project to ensure a timely planning of compliance demonstration. Any team member as well as the applicant may identify the need for a CRI. The PCM should check that the CRI process as described in this WI, is properly applied.

1) PCM confirmation of CRI demand

Actions and sources of information that shall be considered to identify the need for a CRI:

- Check if a new CRI is actually necessary or if the subject can be covered by CS, CRI A-01 or the certification programme (see also the notes in 2.1.4 for SC, 2.1.7 for reversion, 2.1.8 for EtC and 2.1.9 for IM/MoC).
- Certification Memoranda if not already considered in the certification programme;
- Issue Papers or their equivalents raised by a foreign Primary Certificating Authority;
- Familiarisation: Detailed presentations of the project by the applicant during technical familiarisation meetings;
- Applicant requests, especially for ESF, Deviations and Reversions;

2) Initial drafting

- The expert of the identified primary technical panel is responsible for the CRI drafting (the PCM may lead the CRI drafting instead in case of appropriate technical expertise or if a CRI covers multiple panels and coordination is necessary).
- Check if a technical subject is already available in the SEPIAC “Master CRI Repository” and use it as the basis for the new project CRI. The Master CRI Repository in SEPIAC is the EASA single source database for the issuance of project CRIs where the latest version of a CRI subject is to be located. All drafting, commenting, development should be done in SEPIAC to ensure traceability and to ensure that all certification staff is aware of the latest developments.
  To ensure traceability and awareness, it is mandatory to fill the metadata fields in SEPIAC. Follow the the user guides in SEPIAC Certifiation Process Documents for “Master CRI Repository - Guidelines – Editing” and “Master CRI Repository - Guidelines - Establishing Project CRIs” as applicable.
- Each new project CRI to be issued is based on an available master CRI repectively a new project CRI leads to a newly established master CRI in the Master CRI Repository.
- For a specific project, non-applicable content of a potential master CRI shall be considered by the author, i.e. such content might be deleted for the first issue of the project specific CRI.
- A unique reference shall be established as per the SEPIAC Master CRI Repository according to Chapter 2.2..
- The templates in SEPIAC for the various categories of CRIs shall be used according to the applicable fill-in instructions.
- The content, structure and phrasing as described in 2.4.1 shall be considered.

3) Internal Coordination

- Close coordination and agreement should take place between the PCM and all involved panels before issuance of a CRI.
- Additionally, depending on the CRI category, internal awareness, review and acceptance at levels beyond the certification team are required. The following table provides the appropriate acceptance and awareness level (in addition to the usual team work):

CRI Topic	Awareness and Acceptance levels	Notes
A-01	Acceptance and Signature by the product line Section Manager	see 2.1.3 Senior Experts may be involved to check completeness; Senior PCM IAW may be involved for standardization;
A-08	Awareness of the product line Section Manager	For Validation Projects only; For validation of US projects, CRI A-08 is replaced by a work plan; Senior PCM VAL may be involved for standardization;
CRI subjects for Public Consultation	As defined in WI.CERT.00057 and product related safety board	
Non-Important SC, ESF	Acceptance of the classification "not important" at the same level as defined in WI.CERT.00057 with the support of the affected Senior Experts	
IM/MOC	(*)Awareness/acceptance by Senior Expert. Senior Expert has the responsibility to get it presented - In the affected panel meetings - in the product related safety board(s) if it may be of interest beyond a dedicated certification project or may create any controversial issue with applicants.	Acceptance is required if the IM/MOC is new
Anticipated controversial issue, internal or external disagreement	(*)Awareness of affected Senior Expert, Section Managers and product related safety board(s) In case of late new CRI issuance (certification phase III or IV -> causing a "jump back" to phase I), awareness of affected Senior Experts and Section Managers shall be raised asap if a controversial issue or disagreement can be anticipated.	

(*: The Senior Expert will be responsible for ensuring any necessary coordination with the Chief Experts)
Note: the Awareness and Acceptance levels apply also to the CRD and final CRI subject.

Table 15: CRI categories versus Awareness and Acceptance levels

4) External Coordination

- In case of a validation with a bi-lateral agreement in place, it may be useful to coordinate a draft CRI with the corresponding NAA (as e.g. FAA, TCCA, ANAC). This may be particularly important if EASA is the certifying authority, in order to take into account NAAs comments before first issuance to ease the adoption of that EASA CRI subject by the validating Authority.

5) Issuance and Processing

- The formal CRI correspondence with the applicant, and if needed the PCA, is the responsibility of the PCM.

- Once the steps 1-3 above have been completed, the PCM issues the CRI at issue 1 to the applicant and the PCA in accordance with the applicable bilateral agreement, working arrangement, PID, etc. (a PCA position is therefore required at least before closure of the CRI). In case of a concurrent validation where EASA is the PCA, it may be very useful to inform the validating Authority to ease the adoption of that CRI subject.
- The PCM coordinates the formal discussion of the CRI content between the applicant and EASA until agreement is reached;
- First issues and intermediate steps of a CRI need not to be signed, except for the first issue of a CRI A-01, which shall be signed by the Section Manager (see 2.1.3).
- The status of each CRI should be continuously recorded in a CRI list according to 2.4.3.
- CRI correspondence should be electronic. While PDF files are useful for record purposes, during coordination phases, the exchanges between the applicant, the EASA team and the PCA should rely on editable (e.g. MS Word) copies.
- While a CRI should cover the certification approach and content as described per CRI category in 2.1, it should not include EASA team's involvement or actual compliance demonstration.
- The CRI Fill-In Instruction shall be followed.

6) Public Consultation

- In accordance with the MB Decision 12-2007, Article 3, Point 2, deviations as well as important special conditions (SC) and equivalent safety findings (ESF) shall 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.

  A SC and ESF is considered as not important if:

  - it is identical to or based on a similar one already published for consultation;
  - the impact on airworthiness and/or operational requirements is very limited, i.e. if the safety aspects are negligible that are addressed by the SC/ESF or by the change to the SC/ESF (Such decision shall be taken at the same level as the acceptance defined in WI.CERT.00057 with the support of the affected senior experts).

  If there is any doubt as to whether public consultation is required, it is advisable to select public consultation.
- Interpretative Material (IM) and Means of Compliance (MoC) might be a subject of public consultation if so decided by the applicable EASA management level. This is typically the case of MOC or IM of generic nature that can be applied on other projects. In this case the tool of Certification Memorandum should be used.
- It might be also decided to publish IM or MoC together with an associated SC, ESF or DEV for awareness only to clarify the technical subject that is consulted. In such case the IM or MoC is usually not subject to public consultation.
- If the need for public consultation according to MB Decision 12-2007is identified, the content shall be prepared, reviewed and published as described in the work instruction WI.CERT.00057 "Publication and Consultation of Certification Memoranda, Special Conditions, Equivalent Safety Findings and Deviations".
- Only the appendix (Technical Subject) of the CRI shall be published for consultation in a dedicated consultation paper according to the corresponding fill-in instruction.
- If the text published for consultation is changed, the appendices (Technical Subject) and latest CRI position shall be updated accordingly. Therefore, a SC, ESF, DEV CRI should be closed only after consultation.
- After the completion of the public consultation process, the CRI should be updated to record the completion of the consultation.
- If a public consultation is required, it is advised to reach an early agreement on the text to be consulted with the applicant and to start the public consultation as soon as possible, since the text may be changed by the consultation with potential impact on the project and the design.

7) CRI Closure

- A CRI should be closed as early as practical before the associated compliance demonstration starts.
- Provided that the agreements from the relevant team panel members are ensured and kept as records, a conclusion can be drawn and the CRI is closed on project level by the PCM's signature with its status marked as "closed". A final CRI "A-01" shall be signed by the relevant section manager according to 2.1.3.
- A signed electronic copy shall be sent to the applicant;
- Upload the final version of the closed CRI to the relevant project folder on the T-drive or in SEPIAC;

Note: A TC, RTC, STC or change approval cannot be granted before the applicable CRIs are closed.

8) Update of the Master CRI Repository, CS, AMC

- The primary panel expert of the CRI checks with the support of the Senior Expert(s)
  - to update the Master CRI repository with the latest and most developed CRI content
  - to update the Technical Subject on the EASA website
  - for implementation into applicable CS or AMC if the agreed material is sufficiently mature, not of exceptional demand and non-controversial. If this check is positive, the CT.5.1 section manager shall be provided with the technical content for implementation into the affected CS or AMC.

As soon as a CRI content (Technical Subject) is implemented in a CS or AMC, the CRI content shall be superseded by the CS or AMC reference to ensure that for future projects the CS or AMC will be used instead of a CRI.

2.4.1 Content, Structure and Phrasing

CRIs should be written in a way that is

- clear, easy to understand and unambiguous;
- simple and concise, avoiding unnecessary elements;
- precise enough to leave no uncertainty in the mind of the reader.

For additional or alternative specifications to the CS, i.e. in SC, ESF and DEV, present tense or the wording "shall" is to be used. For additional or alternative MoC or IM, the wording "should" shall be used.

Additional or alternative specifications shall be objective based. Technical content shall be phrased that it can be transferred into CS or AMC when considered mature.

The content and structure of a CRI shall be in accordance with the templates and fill-in instructions.

The identification of issue shall be well described to ensure later traceability of the intent of a CRI subject.

The technical subject/content of the CRI (SC, ESF, DEV, IM/MOC, etc.) shall be in the Appendix of the CRI.

If the technical content is part of the certification basis, it should be added after approval as annex to the TCDS or STC.

In case of an ESF or DEV, the applicant's request should be added in an appendix of the CRI after the appendix of the technical content.

Following best practices are highlighted:

- CRIs should be self-contained and self-explanatory (CRI including Appendices). References to documents should not prevent readers from understanding the issues and arguments documented in the CRI.
- CRIs should preferably cover single subjects and not an accumulation of issues or subjects so that CRIs and their content can be compared throughout projects (and therefore equal treatment for all applicants).
- SC and ESF should be objective based avoiding reference to an applicant or specific design. Specific design solutions should be included as MoC to the objective based special conditions or compensating fators. When SC and compensating factors are mature enough, they should be transferred into CS.

Note: The aim and challenge of objective based specifications is to describe its intent independent of a specific design and technology but to describe the intent specifically enough to avoid the possibility of misinterpretation. The aim is a reduced need of future SC, ESF and CS updates.

- Rulemaking by CRI shall be avoided, i.e. it shall be avoided to make the intent of existing CS more stringent. Text improvement in line with the intent of existing CS should be pushed.
- For EASA validation of non EU projects, a CRI may not need to be created on a subject which has already been addressed by the PCA (e.g. through an IP, FCAR, etc.) and with which EASA team concurs. EASA will document such decision in the CRI A-01, or in the work plan (for FAA validation), or by means of a cover CRI (e.g. if a discussion is necessary, or if a CRI A-01 / work plan is not available, or minor adaptations need to be added).

  Note: In case of deviations, important special conditions or important ESF, an EASA public consultation (as per MB-12-2007) is still required;
- A CRI might include the planned way of compliance demonstration but it should not include the actual final compliance demonstration itself. A CRI should not include actions, these should be documented in a CAI.
- An applicant's or foreign authority position or an already responded EASA position shall not be changed. If a former EASA position or the Identification of Issue needs to be adapted, this should be done via the next EASA position.
- The technical content of the appendix does not need to be repeated in the EASA position. If changes are made to the appendix of the CRI, it is sufficient to explain them in the EASA position.
- References in a CRI to another CRI is possible but should be kept to a minimum.

2.4.2 Post Approval Update of CRI Subjects

If a CRI subject is applicable to a post TC major change project, the CRI is kept as is, unless an important new discussion needs to be recorded or the technical content of the appendix need to be adapted. In such case the PCM may decide:

- to re-open the CRI
  - with an upgraded issue number and
  - recording the reference number of the project to which it applies
  - recording the new discussion and impact on the appendix in the related positions,
  - adapting the technical content in the appendix of the CRI,

or

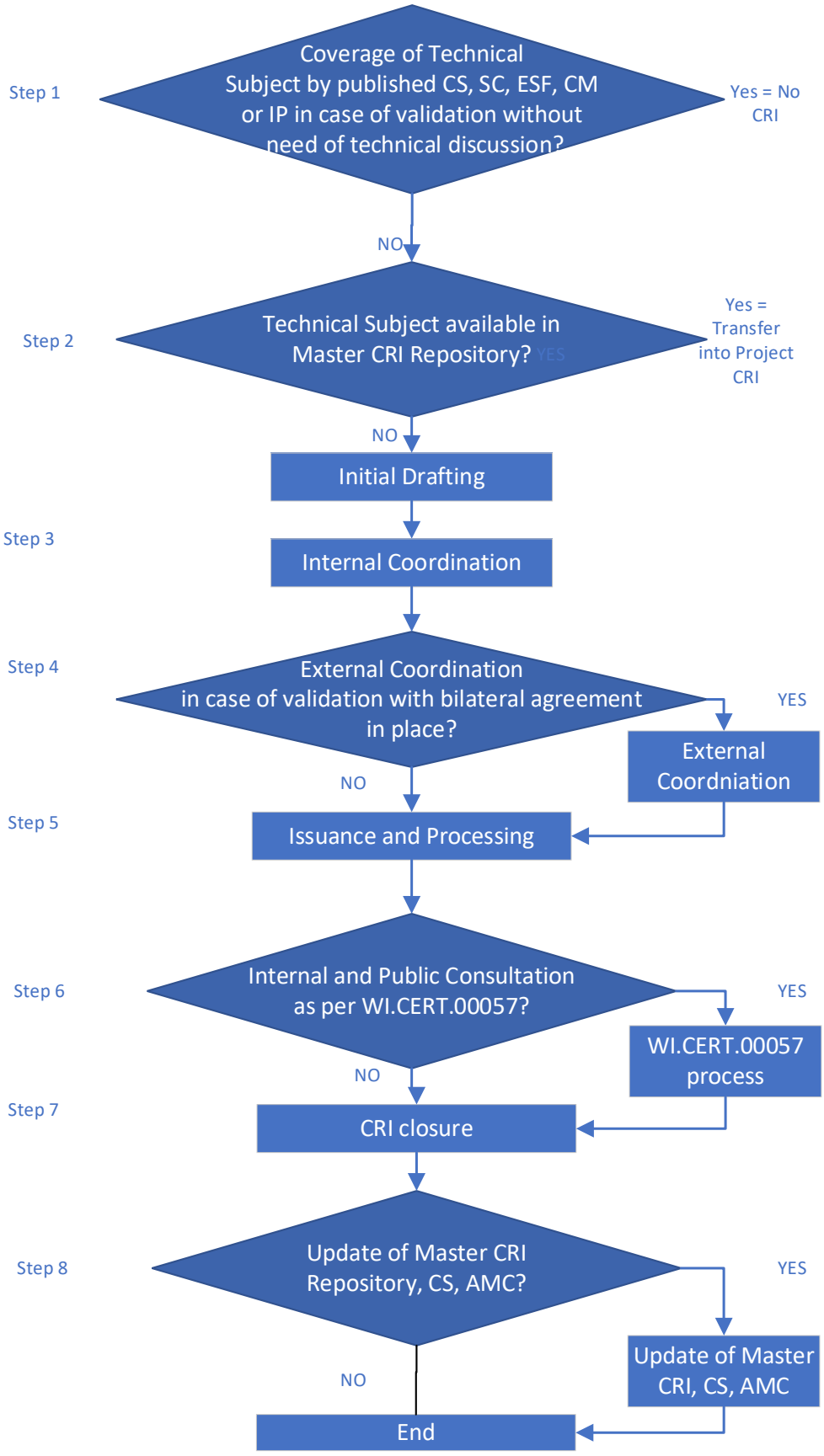
- open a new CRI in accordance with chapter 2.4, or
- to ask the applicant to record the changed position through the certification programme if the revised position is of easy acceptance and not in contradiction to the applicable CRI subject;

2.4.3 CRI Status Summary

The PCM may create a CRI Status Summary document per project. This document contains a list of all CRIs recording at least: CRI Category, Title, Issue Number, Date, Action and Status.

An update of the Status Summary will occur as needed if individual CRIs are advanced in issues.

For TC programmes and Significant Changes the CRI Status Summary should be circulated by the PCM to the Certification Team, applicant and the PCA (for validation projects) as necessary.



3. Certification Action Item (CAI)

Certification Action Items (CAIs) are used by the EASA team as the basic means to formally record actions and their status as well as discussions and conclusions on important items raised during the project.

CAIs shall not be used for the definition of the Type Certification Basis, the interpretation of requirements or the Means of Compliance to such requirements. However, a CAI subject may result in an issuance of a CRI if there should be a need to record new requirements, interpretations or means of compliance.

In addition, CAIs could be used to supplement a specific CRI e.g. to formalize the associated team's involvement in the phase of compliance demonstration.

Different to the CRI process, a CAI shall be closed only when all included actions are completed. The CAI templates TE.CERT.00150 shall be used.

3.1. CAI Categories

The categories of CAI's are the following:

1. Technical Familiarization: to formally capture specific requests for design information from the EASA team members.
2. EASA team's involvement: for the determination of involvement in compliance demonstration verification. This includes interface items to coordinate the relevant actions related to multidisciplinary items with the applicant and the responsible EASA team panels (possible means if not already covered by another means as a certification programme, FAA validation workplan, etc,)
3. Technical discussion: to discuss and define actions on the compliance demonstration process for a specific item.
4. Post-TC Action: to record actions for completion of the applicant post-TC based on the discussion in the context of "Open items at time of TC".

3.1.1 Technical Familiarization

Depending on the level of detail of the technical information provided by the applicant during specific technical familiarization meetings or in the Certification Programme / Plans, there might be a need for the EASA team members to request additional information during the familiarisation phase by means of a CAI.

This could specifically apply to validation projects, for which a more formal communication is requested in the context of an applicable bilateral agreement, e.g. an EASA Flight Panel request for familiarization flight testing.

3.1.2 EASA Team's Involvement

According to point 21.B.100, EASA shall determine and notify its level of involvement in the verification of compliance demonstration activities and data to the applicant. This might be done by reviewing and accepting the involvement proposed by the applicant as part of the Certification Programme. If this is not possible or not practical the EASA team may prepare Certification Action Item document(s) as a formal response to the Certification Programme / Plan(s), listing the panels' involvement in the various compliance demonstration activities and data.

The same applies for validation projects unless otherwise defined by the applicable bilateral agreement. CAIs for EASA team's involvement should be referenced in the CRI A-08.

Such CAI is a formal notification of the EASA involvement to the applicant and does not require an applicant's position. The involvement might be adapted at any time according to the EASA LOI process.

Furthermore, such "CAI 2-yy-zz" (see chapter 3.2 below) might be used to track the current status of the technical investigation (e.g. record of agreement on certification documents, completion of flight and other testing with EASA team involvement etc.) if no other means is available to track the status.

3.1.3 Technical Discussion

This category of CAI might be used to document and formalize the discussion whenever a controversial item has been identified between the EASA team and the applicant for the reasons of traceability and equal treatment of future projects.

3.1.4 Post-TC Action

In case of open items identified during the final phase of the project for which a closure will not be achieved at time of TC but full compliance is nevertheless demonstrated, such items should be recorded in a Post-TC CAI. Such CAI should include:

- a clear description of the item of concern,
- the agreed status / mitigation to be established by the applicant at time of TC,
- the actions required to be completed by the applicant and their associated due dates and
- the applicant's position confirming the agreement to the actions and the commitment to complete them in due time.

A CAI will be closed after completion of all actions only.

3.2. Numbering of CAIs

The CAI numbering system is defined at project level and should take the numbering convention x-yy-zz, where:

- x = CAI category (number 1 to 4 as defined in chapter 3.1)
- yy = panel number, 00 in case of multiple panel applicability or PCM as per the list of EASA Certification Panels and Disciplines
- zz = sequential number

(e.g. CAI 2-03-01 for Structures panel first CAI that determines the involvement in compliance demonstration verification.)

3.3. CAI Process

If the need for a CAI is identified, it is expected that the panel expert respectively coordinator submits a draft proposal to the PCM. If needed, this CAI proposal shall be reviewed and agreed by other affected EASA team panels before it is formally issued by the PCM, in order to seek the applicant's position (except for a CAI on EASA team's involvement).

The PCM is responsible for the opening, the formal correspondence and the closing of each CAI with the help and support of the EASA team members and the applicant. A CAI list might be prepared and maintained by the PCM for tracking purposes. The EASA team panel experts are responsible to track actions related to CAIs in their disciplines and to inform the PCM accordingly on the actual status.

Provided that the agreements from the relevant team panel members are ensured and kept as records, a conclusion can be drawn to indicate that all actions related to the CAI are completed and the CAI is closed on project level by the PCM's signature, with its status marked as "closed".