

NPA 21-30 – Comments and Responses

A BACKGROUND

1. NPA 21-30 has been circulated for comments on 2 January 2002, with request for comments prior to 2 April 2002.
2. 12 organisations commented, and were distributed as follows:
 - Civil Aviation Authorities (5 NAA from JAA, Transport Canada)
 - JAR-21 working group
 - Industry (5)

RST 02/4, doc

4 organisations (JAR 21 WG, 2 NAA, Transport Canada) agreed without comments. All other comments have been addressed and are not introducing significant changes to the NPA initially circulated.

3. AECMA comment, proposing to change “Head of Design Organisation” to “accountable manager for the Design Organization” (see paragraph B.3, below) has been particularly discussed on Industry request, to try to take into account one of the COrA Group recommendation and improve consistency between Subpart G and JA/JB. Unfortunately, it was not possible to find an acceptable common position, not modifying too much the content of the NPA as circulated. Therefore, the comment was not retained.

B COMMENTS AND RESPONSES

1. JAR 21.B243(b)

CAA UK

Item 3: The word “thereof” should be changed to “thereto” to read as follows. “(b) *Where any parts of appliances, or any changes thereto, are designed...*”

Response:

Agreed. The word “thereof” will be changed into “thereto”.

2. ACJ 21.A239(a)

AECMA

Replace : “... his signature on the declaration of compliance **entails** that the procedures as specified in the handbook have been followed ...”

by :

“... his signature on the declaration of compliance **attests** that the procedures as specified in the handbook have been followed ...”

Reason(s) for proposed text / comment

Entails is not the appropriate word. Attests means a positive confirmation.

CAA UK

Item 6: Change “entails” to “certifies” so that last sentence reads as follows. “*In accordance with JAR 21.20 (c), his signature on the declaration of compliance entails certifies that the procedures as specified in the handbook have been followed.*”

Police Aviation Services Ltd

General Comment :

Where it mentions “modify ACJ 21.A239(a)” the last paragraph of 3.1.2(b) says: “...his signature on the declaration of compliance ENTAILS that the procedure...”

Entails is the wrong word as far as I can see; verifies or even certifies, confirms, declares would make more sense.

The rest of it seems (at this early stage in my education) to be fair.

Response:

Agreed. The word “entails” will be changed into “confirms”.

DGAC France

quote:

The Head of Design Organisation, or an authorised representative, signs a declaration of compliance...unquote

Reason(s) for proposed text / comment

It is understood that use of the wording “should” (*quote The Head of Design Organisation should sign a declaration of compliance...unquote*) is intended to allow for delegation, since it is admitted that the Head of Design Organisation is not required to sign a statement of compliance for each every design change.

This understanding is however somewhat cryptic and it is proposed to make the wording clearer.

Therefore, it is suggested to adopt the proposed wording.

Response:

Agreed.

DGAC France

General Comment, see below.

3.1.2

(b) The head of Design Organisation should sign a declaration of compliance (see JAR 21.20(b), JAR 21.97(a)(3) and JAR 21.114) with applicable airworthiness requirements after verification of satisfactory completion of Type Investigation. In accordance with JAR 21.20(c), JAR 21.97(a)(4) and JAR 21.114, his signature of the declaration of compliance entails that the procedures as specified in the handbook have been followed. (See also ACJ 21.A265(b))

Which means that the JAR 21.97 has to be changed as follows:

21.97

(4) Where the applicant holds an appropriate Design Organisation Approval, make the declaration of sub-paragraph (3) of this paragraph according to the provisions of Subpart JA.

~~(4)~~ (5) Comply with JAR 21.33 and, where applicable, JAR 21.35.

Reason(s) for proposed text / comment

JAR 21.A239 deals with any DOA applicant / holder. Where the applicant holds an appropriate design organisation approval, the compliance statement must be made according to the provisions of Subpart JA.

On the contrary , paragraph JAR 21.20 is strictly limited to type certification of a new product, which might lead to some confusion regarding the scope of this ACJ to paragraph JAR 21A239.

Therefore, for clarification regarding the applicability of this ACJ, it is proposed that JAR-21.97 and JAR 21.114 be also quoted in item 3.1.2(b) and to refer to subpart JA in JAR 21.97 and in JAR 21.114 (which doesn't need to be amended as it simply refers to JAR 21.97).

Response:

1. Reference to JAR 21.97(a)(3) is agreed, but not to JAR 21.114, as this paragraph simply refers to JAR 21.97.

2. Proposal to add a new paragraph JAR 21.97(a)(4) to establish consistency with JAR 21.20(c) is also agreed.

3. ACJ 21.A/B239(a)

AECMA

Replace "Head of Design Organization" by " The accountable manager for the Design Organization".

Reason(s) for proposed text / comment

This follows one of the aspects covered by the works of the COra Group. Standardized wordings should be used across the various types of approvals, where possible.

Response:

Not agreed, as the Head of Design Organisation is not necessarily the accountable manager. The new explanations, in ACJ 21.A/B239(a), paragraph 3.1.2, make clearly the difference between the two functions, that can be exercised by one person (see new text of para. 3.1.2(c)).

EADS Elbe Flugzeugwerke GmbH

General Comment :

The introduction of the function "Chief Executive" is ambiguous.

This new role may lead to uncertainties in showing compliance with this ACJ by Design Organisations and Authorities. Therefore an additional note is required to clearly indicate how compliance with this ACJ may be achieved, whether Chief Executive and Head of Design Organisation may be two different persons or both roles may be linked to only one person.

Reason(s) for proposed text / comment

Depending on the size of the organisation the role of Chief Executive and Head of Design Organisation may be linked to only one person.

Response:

Agreed. The following text is added for clarification :

"(c) The functions of Chief Executive and Head of the Design Organisation can be operated by the same person."

Austrocontrol

General Comment :

NPA 21-30 is acceptable but based on experience I ask to clarify in the ACJ 21.239(a)(b)

Head of Design if in consortium like CFM one HOD has to be nominated or if two HOD (one for SNECMA and one for GE) are covered.

The ACJ The Head of Design give rise that a single person has to be designated as HOD.

If there is another interpretation, I recommend to change wording in ACJ.

Response:

Comment noted. When new interpretation will be agreed in a context of a specific DOA investigation, ACJ material will be proposed accordingly, in accordance with JAA DOA procedures.

Snecma Moteurs

See below, under ACJ 21.A/B243(d)

4. ACJ 21.A/B243(d):

DGAC FRANCE

It is requested to introduce the following sentence in Item 1 "Purpose":

"This ACJ addresses the most common organizations structures, but does not exclude other proposals which are to be examined against JAR 21 Section 1."

Reason(s) for proposed text / comment

Without this preliminary reminder, the wording of paragraph 2 seems to state that JR-21 only envisage the case of one Head of Design ("The" Head of the Design Organisation...)

(There is no such requirement in JAR-21 Section 1.ACJ should not introduce not any requirements)

Response:

Not agreed. An ACJ by definition does not exclude other acceptable means of compliance (see introduction of Section 2, in all JARs).

Snecma Moteurs

This comment applies also to others paragraphs (Proposal 6, new ACJ 21.A239(a), § 3.1.2 (b) / Proposal 9, new ACJ 21.B239(a), § 3.1.2 (b) / Proposal 11, new ACJ 21.B243(d), § 2)

General Comment :

This Design Organisation regulation and associated “acceptable means of compliance” should be thought and written, the way that reflect existing or future industrial organisation. One of these organisations is consortium or Joint Venture between two or more companies, not all necessarily located in European Countries.

Main objective of this regulation is to ensure Design Organisation efficiency of the aeronautical products. Therefore, we recommend enforcing regulation in the way to ensure achievement of design organisation’s functions, rather than to ensure company’s organisation by itself that may have economical or commercial conflict with such regulation.

PROPOSED TEXT/COMMENT

2 Who are the persons ?

Three different types of function are named or implicitly identified in the requirements or ACJs of JAR-21, subpart JA, using qualified and experienced personnel:

- The Chief Executive [ACJ 21.A239(a), para. 3.1.2. ACJ 21.A249, ACJ 21.A265(b)]
- The other organisation’s management staff:
 - ~~The~~ Head of Design Organisation [...]
 - ~~The~~ Chief of ~~the Office of~~ Airworthiness Organisation [...]
 - ~~The~~ Chief of ~~the~~ independent monitoring function of the Design Assurance system [...]

Reason(s) for proposed text/comment

In the proposed ACJ text, all Design Organisation System functions are identified as the “Head of design” or the “Chief of...”, which means that personnel has to be unique for each function. If we check with the regulation [JAR 21.A243(d)], it says “applicant must furnish ... (demonstration) ... for making decisions affecting airworthiness in the Organisation”, which means demonstration of the staff used by the Organisation. That doesn’t imply necessarily that functions to achieve demonstration have to be unique (some existing consortium has successfully demonstrated so for more than 20 years!).

Response:

Comment agreed in general, except the change to airworthiness organisation, as this ACJ is using the same terminology as ACJ 21.A239(a), and the deletion of the word “the”, which does not change the context.

CAA-UK

Significant Editorial Comments:

Item 7, points 1,2 and 3:

Under point 1 “Purpose” there are two bullet points. The first reads “Who are the persons covered by JAR 21.A243(d)” and the second reads: “What is requested from the applicant for these persons”. The wording of these two bullet points is generally poor. For example, in the first bullet point “Who are the persons” might be better described as “Applicability of JAR 21.A243(d)”. Similarly what is meant by the second bullet point and does it relate to what the applicant must furnish the Authority with for those persons covered by JAR 21.A243(d) or does it relate to the extent of the responsibilities of persons covered by JAR 21.A243(d)?

Having clarified the wording of these bullet points the text should be aligned with the titles of points 2 and 3. For example, in point 3, the words “Kind of Statement” is meaningless in the current context. If the current text of the second bullet point is correct then point 3 should be amended to read “What is requested from the applicant for persons covered by JAR 21.A243(d)” or something similar. If however the second bullet point is amended to read

“Guidance on the responsibilities held by those persons covered by JAR 21.A243(d)”, then the title of 3 should be aligned accordingly.

Item 11: The same comment as above applies.

Response:

Comment noted. As experience has not shown difficulties, the text is kept as it is.

CAA UK

General editorial comments:

Item 7: In general this section would very much benefit from a review of the English used, as the overall wording is generally poor. The following is a few of the editorial amendments which would help to improve the overall wording of this section.

Sub-paragraph 3.3:

First line: Change “requested” to “required”.

1st bullet point. Change sentence beginning “Also the needs in terms of quantity...” to “Number of persons for the office of airworthiness should also be identified...”.

3rd bullet point. Change “qualification” to either “acceptance” or “approval”.

9th bullet point. Add words “do not” to read “...such confidential records do not become accessible...”.

Response:

It is agreed to change “requested” into “required”.

Comment on 1st bullet point is not agreed. Needs, in terms of workload, must be identified, not only the number.

For third bullet point, see new improved text, following AECMA comment (see paragraph 6, below).

It is agreed to modify 9th bullet point.

AECMA

General comment :

The proposed texts seem to take for granted that there is one Chief of the Office of Airworthiness, and one chief of the independent monitoring function of the Design Assurance System.

Acceptable situations may be different (e.g. one Chief of Office of Airworthiness for each TC held by the applicant, and no overall Chief across all TCs), and the proposal ignores them. The proposed ACJ cannot take for granted aspects of the organisation which do not come directly from the requirement (JAR 21 section 1), but only from others ACJ, which are only possible ways to comply with the requirement.

(In addition, if it is chosen to keep current text, it is suggested to replace "Chief of ..." by "Head of ...")

Response:

Comment noted. See answer to Snecma Moteurs comment, in paragraph 4 above.

AECMA

Replace "Head of Design Organization" by "The accountable manager for the Design Organization".

Reason(s) for proposed text / comment

This follows one of the aspects covered by the works of the COra Group. Standardized wordings should be used across the various types of approvals, where possible.

Response:

Not agreed, as the Head of Design Organisation is not necessarily the accountable manager. The new explanations, in ACJ 21.A/B239(a), paragraph 3.1.2, make clearly the difference between the two functions, that can be exercised by one person (see new text of para. 3.1.2(c)).

5. ACJ 21.A/B243(d), bullet 3.2 : Other management staff

AECMA

Replace : " The nominated managers should be identified and their credentials **submitted** to the Authority ..."

by :

" The nominated managers should be identified and their credentials **furnished** to the Authority ..."

Reason(s) for proposed text / comment

The requirement within Section 1 is that the applicant "... furnish a statement ...", not "submit". Therefore, the ACJ should not use a different verb, which may entail a different interpretation.

Response:

Comment agreed.

EADS Elbe Flugzeugwerke GmbH

General Comment :

The introduction of the function « Chief of the independent monitoring function of the Design Assurance System » is neither identified nor required by JAR 21.A/B239 or relevant ACJ. Therefore, as this role is not justified and guidelines are missing to define this role, it has to be deleted from this ACJ.

However, an acceptable means would be also to propose by this ACJ this role as voluntary, depending on the size of the Design Organisation.

Reason(s) for proposed text / comment

JAR-21 Subpart JA/JB does not define the tasks and responsibility assigned to the new function « Chief of the Independent monitoring function of the Design Assurance System ».

Response:

Comment noted. JAR 21.A/B239(a)(3) requires the function, therefore a person responsible must be nominated.

6. ACJ 21.A/B243(d), bullet 3.3 : Personnel making decisions affecting airworthiness

AECMA

Replace all the text describing the proposed system (from " * The identification of these personnel ... " up

to : "... reasonable access on request to their own record"),

by :

- These personnel should be identified in the handbook, or in a document linked to the handbook. This, and the corresponding procedures, should enable them to carry out the assigned tasks and to properly discharge associated responsibilities
- The needs, in terms of quantity of these personnel to sustain the design activities, should be identified by the organisation
- These personnel should be chosen on the basis of their knowledge, background and experience
- When necessary, complimentary training should be established, to ensure sufficient background and knowledge in the scope of their authorization. The minimum standards for new personnel to qualify in the functions should be established
- This training should be adapted in response to experience gained within the organisation
- The organisation should maintain a record of any personnel who is authorized to put the last signature on a declaration of conformity to the requirements, or on a record of an approval given in the frame of a privilege. These personnel should be provided with evidence of the scope of their authorization
- The following minimum information should be kept on record (a) to h) unchanged)
- The record may be kept in any format, and should be controlled

- Persons authorized to write in the record system should be maintained at a minimum to ensure that records cannot be altered in an unauthorized manner
- Personnel should be given access to their own record.

Reason(s) for proposed text / comment

This section is generally considered as too prescriptive and in too much detail. It is even questionable whether there is the JAR 11 required correlation between the requirement from JAR 21.A243(d), which requires "a statement", and the proposed ACJ, which very strongly suggests "a system". Experience shows that there are a variety of acceptable ways to comply with the requirement, and the ACJ should explicitly recognize this.

For instance, the selection of individuals is often done by the responsible managers after having had day to day relationship with the personnel all along years of work, rather than being the result of a formal training process, which may include formal testing as inferred by the proposed NPA.

This has worked so far with positive influence on safety, and should not be disregarded for discutable theoretical reasons. No undue burden nor rigidities should be placed when not justified by safety reasons.

Here follow some detail justifications for changes :

The personnel should be identified in the Handbook itself, or in documents which can be linked to the Handbook.

"Hierarchical positions" can be understood as if there would have a need that these personnel are in a Senior Management position. Current Industry experience is that such tasks can be given often to people without any command role, without any adverse effect on the correct discharge of the responsibilities.

The role should enable responsibilities to be discharged. Allow is too weak a verb.

Qualification is a word which should be ... qualified ! In some countries, it means specifically an educational degree. The formal step to qualify for an airworthiness function should be limited to new personnel

It is implicit and does not need stating that if a subject is part of the Design Assurance, then it is subject to surveillance. There is unnecessary emphasis on the monitoring system.

There are many more people who make decisions affecting airworthiness than would be expected to have a numbered authorization. Therefore we propose a criteria.

Personnel should have access to their record without asking. Access to the record system should only be limited for write permissions.

Response:

Text has been improved, following most of AECMA proposed changes.

7. ACJ 21.A/B 245

AECMA

Replace "Head of Design Organization" by " The accountable manager for the Design Organization".

Reason(s) for proposed text / comment

This follows one of the aspects covered by the works of the COra Group. Standardized wordings should be used across the various types of approvals, where possible.

Response:

Not agreed, as the Head of Design Organisation is not necessarily the accountable manager. The new explanations, in ACJ 21.A/B239(a), paragraph 3.1.2, make clearly the

difference between the two functions, that can be exercised by one person (see new text of para. 3.1.2(c)).

8. ACJ 21.A/B247, section 2 : Responsibilities

AECMA

General comment :

The proposed texts seem to take for granted that there is one Chief of the Office of Airworthiness, and one chief of the independent monitoring function of the Design Assurance System.

Acceptable situations may be different (e.g. one Chief of Office of Airworthiness for each TC held by the applicant, and no overall Chief across all TCs), and the proposal ignores them. The proposed ACJ cannot take for granted aspects of the organisation which do not come directly from the requirement (JAR 21 section 1), but only from others ACJ, which are only possible ways to comply with the requirement.

(In addition, if it is chosen to keep current text, it is suggested to replace "Chief of ..." by "Head of ...")

Response:

Comment noted. See answer to Snecma Moteurs comment, in paragraph 4 above.

EADS Elbe Flugzeugwerke GmbH

General Comment :

The introduction of the function « Chief of the independent monitoring function of the Design Assurance System » is neither identified nor required by JAR 21.A/B239 or relevant ACJ. Therefore, as this role is not justified and guidelines are missing to define this role, it has to be deleted from this ACJ.

However, an acceptable means would be also to propose by this ACJ this role as voluntary, depending on the size of the Design Organisation.

Reason(s) for proposed text / comment

JAR-21 Subpart JA/JB does not define the tasks and responsibility assigned to the new function « Chief of the Independent monitoring function of the Design Assurance System ».

Response:

Comment noted. JAR 21.A/B239(a)(3) requires the function, therefore a person responsible must be nominated.

9. ACJ 21.B239(a) para 3.1.2.

Aircabin GmbH, Germany

(See also ACJ 21.A265(b).) should be (See also ACJ 21.B265(b)).

Response:

Agreed

10. ACJ 21.B239(a) para 3.1.3.

EADS Elbe Flugzeugwerke GmbH

General Comment :

The nomination of JB compliance verification personnel by JA DOA Holders in accordance with JAR 21.A243(b) is ambiguous and inconsistent with JAR-21 Subpart JB and has therefore to be deleted from this ACJ.

Reason(s) for proposed text / comment

This ACJ is inconsistent with JAR-21.B239(a) as it is the task and responsibility of the JB DOA Holder's Office of Airworthiness to co-operate with the JA DOA Holder and to co-ordinate all tasks in support to JA DOA Holder(ACJ 21.B239(a) para 3.1.4.) – therefore if any then the Office of Airworthiness personnel should be nominated by a JA DOA Holder.

The nomination of Compliance Verification personnel by JA DOA Holder is burdensome for JB DOA Holder, as a JB DOA Holder may be integrated in the Design Assurance System of many different TC/STC-Holders. This will lead to additional work load to receive nominations from JA DOA Holder.

This proposal is therefore in contradiction to the intention of JAR-21 Subpart JB. E.g. see ACJ 21.B239 quote: This can be considered as an advantage to avoid duplication of work... unquote.

Additionally it bears the risk of different persons nominated for the same task and responsibility for JB DOA Holder, which is in strong contradiction to the intended objectives of the Design Assurance System of JAR-21.

Response:

Not agreed. The JA DOA holders are free to use or not JB compliance verification engineers.

[end]