European Union Aviation Safety Agency

Design Organisations

Night Vision Imaging Systems (NVIS)

What are the expectations of the Agency in respect to Night Vision Imaging Systems (NVIS) competences at a DOA holder?

Answer

The detailed review of the DOA competences related with NVIS will be performed during the investigation of the Significant change.

Besides the competences required for the avionics and electrical changes, the DO has to demonstrate appropriate knowledge and experience in conducting the certification process as described in the appropriate sections of AC 29-2C MG16 or AC 27-1B MG16.

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23/11/2015

Link:
https://www.easa.europa.eu/en/faq/20118

Do I need to take any action, having already 'rotorcraft' category and 'Installation of Avionics' and 'Electrical systems' in my Terms of Approval, to be able to design NVIS related changes/repairs ?

Answer

The changes/repairs of NVIS or NVIS-friendly rotorcraft are specifically covered in the Terms of Approval by the 'NVIS' technical field. Therefore, to be able to design such changes/repairs, a DOA has to extend its scope of approval through the usual Significant Change process.

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Link:
https://www.easa.europa.eu/en/faq/20117

Why should I, as a DOA holder designing changes to rotorcraft, know about Night Vision Imaging Systems (NVIS)?

Answer

In the last years the use of night vision systems in civil operation increased, reflected in an increasing number of rotorcraft already equipped with the system or 'NVIS-friendly' (with provisions for installation of NVIS systems).

Awareness of the NVIS technical field is expected from any DOA holder – so that it can assess if it’s design changes are (potentially) affecting the NVIS characteristics of the rotorcraft.

For DOA holders who design changes that are affecting NVIS, this technical field must be included in the Terms of Approval.

Please check the related Certification Memorandum CM-FT-001 for further details.

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Link:
https://www.easa.europa.eu/en/faq/20116

International cooperation

Can I, as a DOA holder, use the Form 8110-3 issued by a FAA approved test house as a finalised compliance document?

Answer

No, test data issued by a test house should not be considered a finalised compliance document.

The DOA holder is responsible to establish the compliance data for its projects; this includes compliance reports made for flammability. All documents used by the DOA holder to demonstrate compliance must be signed off by a CVE of the DOA holder. This CVE can be external (for instance located within the flammability lab), in which case, the person must be linked to the DOA, being FAA DER or not. And the relation with the external facilities must be established by the DOA holder under the provisions of 21.A.239(c).

If a FAA DER is signing under such scheme, he shall sign according to DOA procedure, and thus FAA Form 8110-3 cannot be used.

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Link:
https://www.easa.europa.eu/en/faq/20141

Are the repair designs approved by non-EU TC holders considered approved design data by the Agency?

Answer

Repair designs approved by non-EU TC holders established in a country where there is no bilateral agreement in place with the European Union, are not considered approved design data and must be approved by the Agency. For those non-EU TC holders based in a country – which is also the state of design – where there is a bilateral agreement signed with the European Union, the following provisions apply:

- USA: repair data approved or accepted under FAAs system are considered to be EASA approved; no application to EASA is required.
- Canada: repair data approved or accepted under TCCAs system are considered to be EASA approved; validation is not required.
- Brazil: repair data approved or accepted under ANACs system are considered to be EASA approved; validation is not required.

In these cases, repair designs requiring the production of new parts that would constitute a design change, are not eligible for acceptance under the Implementation Procedures of the bilateral agreements in place.

For further details and special conditions related to critical components, please refer to the applicable Technical Implementation Procedures for Airworthiness and Environmental Certification.

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Link:
https://www.easa.europa.eu/en/faq/20142

Can I, as a DOA holder, approve a design change based on a design approval issued outside the EU?

Answer

No, a design organisation approval only entitles the holder to perform design activities, and only within the scope of approval detailed in the terms of approval. Some privileges can be included in the mentioned terms of approval that allow the holder to carry out activities without the direct involvement of the Agency. The privileges are always related to designs that are done by the DOA holder, with the involvement of design subcontractors when needed and so decided, and never to designs done by others. A privilege to approve design changes done by others does not exist.

Thus, even though the design approval by the DOA cannot be based on such a prior design approval, it can be based on the design and compliance data, provided a proper subcontracting agreement is established.

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Link:
https://www.easa.europa.eu/en/faq/20140

Subcontracting

Do I, as a DOA holder, need to make any specific arrangements when I'm cooperating with a vendor (design and build)?

Answer

First of all, to answer this question it must be defined what is considered a vendor.

For the purpose of this FAQ, a vendor is defined as a company providing a specific design and manufacturing that design – a so-called vendor item.

Further to this vendor item:

- it is anticipated that the design details of the vendor item may not necessarily be known by the DOA holder;
- consequently, this approach is feasible only for low risk items.

The cooperation of the DOA holder with such a vendor must be described in the Design Organisation Handbook as part of the Subcontractor Control process.

The Subcontractor Control process for vendors, as a minimum, should describe how the DOA holder:

- assesses the criticality (risk) of the vendor item;
- defines the interface with the vendor;

- controls the design configuration of the vendor item.

The Subcontractor control process for vendors can be a form of high level control, based on technical specifications, and a verification process ensuring that the vendor item meets the technical specification, and having in the contract with the vendor an effective mechanism for information about changes - both ways. The DOA holder's procedures should identify an appropriate entry point into the documentary system (e.g. DO/PO arrangement, contract, quality plan, handbooks, common applicable procedures, working plans, etc.).

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Link:
https://www.easa.europa.eu/en/faq/20115

What are the expectations of the Agency in respect to the control of subcontractors by a design organisation?

Answer

Please refer to the good practices published on EASA website at this linkhere.

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23/11/2015

Link:
https://www.easa.europa.eu/en/faq/20114

Applications

How long does it take to obtain a design organisation approval (DOA)?

Answer

It is not possible to give a single answer to this question here, but to give an indication – on average the duration of the investigation process is approximately 1.5 year.

The actual duration of the investigation is dependent on many aspects: Quality of the Design Organisation Handbook, Complexity of the Design Organisation, Resources, Responsiveness, Training, Implementation, Communication, etc.

See also the FAQ "Can you explain the process to obtain a design organisation approval (DOA)?" in which the process to obtain a DOA is explained.

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23/11/2015

Link:
https://www.easa.europa.eu/en/faq/20106

Can you explain the process to obtain a design organisation approval (DOA)?

Answer

After the application has been submitted by the company, the Agency will start its so-called Initial Investigation process. A DOA Team Leader (DOATL) will be appointed to lead the investigation, and will invite you for a Kick-off meeting, preferably at the Agency. During this meeting the investigation process will be explained in detail, taking into account specific characteristics of the organisation applying for DOA. For this purpose, the applicant should prepare a presentation of the company in general, as well some specific information of the design organisation (e.g. organisation setup, type of design projects). It is not expected that a DOA handbook is already prepared prior to the Kick-off meeting.

The DOATL will form a DOA Team (DOAT) so that all relevant fields of expertise are available to conduct the investigation. The investigation process will be processed step-by-step. Initial reviews will stay high-level, and are aimed to make sure all essential elements are covered. These will be followed by detailed reviews for each core process of the design organisation. When the process descriptions are satisfactory and documented, the DOATL will plan one audit (or more, depending on the complexity of the case) at the company facility (and, if relevant, supplier(s) facilities as well) to verify the implementation of the design organisation handbook. Along this process, the DOAT will also perform interviews with management staff and CVE's.

All along the initial investigation process, the company will have to:

- Create and keep up-to-date a DOA development and deployment plan
- Draft and update the design organisation handbook and associated procedures
- Train the design organisation staff
- Prepare sample certification projects
- Execute the Independent System Monitoring function (e.g. perform internal audits, etc.)

When it is demonstrated that the design organisation complies to all relevant requirements, the investigation process will be completed and the DOA certificate can be issued.

If you are considering to apply for DOA, but you would like to discuss your case prior to making the application, please do not hesitate to contact the DO Department at: doa [at]

easa.europa.eu

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14/03/2018

Link:
https://www.easa.europa.eu/en/faq/20105

What are the expectations of the Agency in respect to the numbers and experience of the staff of a design organisation?

Answer

Requirement 21.A.245(a) and associated GM no. 1 applies. Design organisations should have a documented system to select personnel based on minimum knowledge and experience requirements defined for each technical role, complemented by training programs identified for each role and adapted to single individuals, which are periodically reviewed, taking into consideration the state of the art and new experience. The design assurance system should also allow the organisation to demonstrate that the numbers of skilled personnel is sufficient to carry out all planned design and compliance demonstration activities in compliance with the approved procedures. Project estimated hours workloads versus capacity and Gantt charts for planning are typical tools used to show compliance with the relevant Part-21 requirements.

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Link:
https://www.easa.europa.eu/en/faq/20108

What are the expectations of the Agency in respect to the independent system monitoring of a DOA holder?

Answer

First of all the Agency expects the Independent System Monitoring of a DOA Holder to:

- be properly placed within the Design Organisation in order to have the Independency ensured (above process owners and below the Head of Design Organisation);
- be properly staffed with persons having relevant Part-21 expertise and process monitoring (auditing) skills;
- have a feed-back system to person(s) having the responsibility to ensure corrective actions

(such as process owner, DOA Management or Head of Design Organisation).

Independence means that the ISM staff should not be involved in the processes and produce deliverables of the processes but may:

- Support process owners in defining processes compliant with Part-21;
- Support process owners in the analysis of the root cause of the issues collected during process monitoring;
- Support process owners in defining corrective actions;
- Support process owners in verifying the effectiveness of the corrective actions;
- Liaise with the EASA DOATL;
- Report summarised information related to Design Assurance System performance / health to the Head of Design Organisation.

This function may:

- be subcontracted or,
- be performed by the Quality Organisation under some conditions mentioned in the presentation Independent System Monitoring on the EASA website.

The Agency considers that effective monitoring means to ensure:

- Compliance of the Handbook and procedures with Part-21;
- The adequacy of the procedure;
- Appropriate technical content of the deliverables;
- Process adherence (compliance with procedures);
- Monitoring and analysis at process level performed by competent staff;
- Systematic collection of issues arising during a given process (e.g. difficulties or good performances during change or STC process);
- Systematic and complete reporting about health of the process (performance and not only non-conformities).

For further details please refer to the presentation Independent System Monitoring.

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23/11/2015

Link:

https://www.easa.europa.eu/en/faq/20109

Can I, as a DOA holder, appoint a deputy for one of the key management positions? And is an EASA DOA Form 4 required for such a deputy?

Answer

It is considered good practice by the Agency to anticipate temporary absence of the key managers (Head of Design Organisation, Head of Office of Airworthiness and Head of Independent System Monitoring), but usually the Agency will not require an EASA DOA Form 4 for any deputy function.

It is expected that the deputy function is established to ensure continuity in the execution of tasks – in absence of the main post holder - while the responsibilities remain with the nominated manager. This delegation of tasks is feasible whilst properly described in the Design Organisation Handbook.

An exemption should be considered the case when the key manager will be absent for a long time (e.g. maternity leave or extensive sick leave) and cannot be realistically expected to assume responsibility during his/her absence, but is expected to return to his/her nominated function (and thus remaining in the key management position within the company). In this case, a deputy should be nominated to cover the period of absence. This should be considered a significant change to the Design Assurance System (covered by an EASA Form 82), and the nomination of the deputy functionary should be made including EASA DOA Form 4.

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23/11/2015

Link:
https://www.easa.europa.eu/en/faq/20111

My organisation is based in a country outside the EU. Can I apply for DOA?

Answer

Any company, independently of where it is based, can apply for DOA by means of the form FO.DOA.00080, which can be downloaded from the EASA webpage. Each application received from a company based outside the EU is evaluated, and final decision (regarding the acceptability or rejection of the application) is made on a case by case basis by the Agency. Some considerations however apply: the applicant may be requested to demonstrate that the DOA is needed in relation with an application for a design approval (TC, STC, …). For those companies established in a country where there is a bilateral agreement in place signed with the EU (such as United States, Brazil and Canada), such applications will normally be rejected, because the purpose of the bilateral agreements is to rely on each other’s design approval system.

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23/11/2015

Link:
https://www.easa.europa.eu/en/faq/20102

Do I, as a DOA holder that only deals with minor changes and minor repairs, need to have an occurrence reporting system?

Answer

According to 21.A.3A, a DOA holder that only deals with minor changes and minor repairs does not need to have an occurrence reporting system. This doesn't prevent the DOA holder from having a system for collecting feedback from their customers.

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Link:
https://www.easa.europa.eu/en/faq/20113

When is an organisation, designing a product (aircraft, engine, propeller), exempt from having a DOA?

Answer

An Organization designing:

- a piston engine, or
- a fixed or adjustable pitch propeller, or
- an aircraft belonging to ELA 1 or ELA 2 Category, or
- an engine or a propeller installed in an ELA1 or ELA 2 aircraft

is exempt from being required to have a DOA. (See 21.A.14(b) and (c))

Following definitions apply (COMMISSION REGULATION (EC) No 748/2012, article 1):

"ELA1 aircraft" means the following manned European Light Aircraft:

i. an aeroplane with a Maximum Take-off Mass (MTOM) of 1200 kg or less that is not classified as "complex motor-powered aircraft";
ii. a sailplane or powered sailplane of 1200 kg MTOM or less;
iii. a balloon with a maximum design lifting gas or hot air volume of not more than 3400 m3 for hot air balloons, 1050 m3 for gas balloons, 300 m3 for tethered gas balloons;
iv. an airship designed for not more than four occupants and a maximum design lifting gas or hot air volume of not more than 3400 m3 for hot air airships and 1000 m3 for gas airships;

“ELA2 aircraft” means the following manned European Light Aircraft:

i. an aeroplane with a Maximum Take-off Mass (MTOM) of 2000 kg or less that is not classified as “complex motor-powered aircraft”;
ii. a sailplane or powered sailplane of 2000 kg MTOM or less;
iii. a balloon;
iv. a hot air ship;
v. a gas airship meeting all of the following elements:
    - 3% maximum static heaviness,
    - Non-vectored thrust (except reverse thrust),
    - Conventional and simple design of: structure, control system and ballonet system
    - Non-power assisted controls;
vi. a Very Light Rotorcraft.

An aeroplane, meeting the MTOM requirements for ELA 1 or ELA 2 Category, is nevertheless classified as “complex motor-powered aircraft ” when it is certificated for operation with a minimum crew of at least two pilots, or it is equipped with (a) turbojet engine(s) or more than one turboprop engine.

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Link:
https://www.easa.europa.eu/en/faq/20103

How does the Agency accept the management staff of a design organisation?

Answer

A design organisation has to nominate its management staff:

- the Chief Executive
- the Head of the Design Organisation
- the Chief of the Office of Airworthiness
- the Chief of the independent monitoring function

The person or persons nominated should represent the management structure of the organisation and be responsible through the Head of design organisation to the Chief Executive for the execution of all functions as specified in Part-21, Subpart J. Depending on the size of the

organisation, the functions may be combined or subdivided under individual managers.

The design organisation shall furnish a statement of the qualifications and experience of the management staff to the Agency: this means that the nominated managers should be identified and, except the case of Chief Executive, their credentials furnished to the Agency on EASA Form 4-DOA in order that they may be seen to be appropriate in terms of relevant knowledge and satisfactory experience related to the nature of the design activities as performed by the organisation.

The Agency does not approve individuals; therefore the acceptance of the nominated managers has to be understood:

- either through the Approval of the Design Organisation following the initial investigation. The nominated management staff of an approved design organisation, their hierarchical links and allocated responsibilities shall be then identified in the DOA's Handbook,
- or through the Approval of Significant Change to the DOA related to a change of the management staff, to be done as described in the DOA procedures. Once the Application for the Significant Change to the DOA shall be submitted by the DOA and accepted by the Agency, the DOA Team Leader will investigate the case and summarise his/her assessment and recommendation for acceptance in his investigation final report. On that basis, EASA shall issue the formal Letter of Approval of the Significant Change to be sent to the DOA.

See also the following relevant regulatory material:

- GM No. 1 to 21.A.239(a) Design assurance system, para (3.1.2)
- 21.A.243 Data, para (d)
- AMC No. 1 to 21.A.243(a) Data requirements, para (2.)
- AMC No. 2 to 21.A.243(a) Data requirements - Model content of handbook for organisations designing minor changes to type design or minor repairs to products, para (1.10)
- GM No. 1 to 21.A.243(d) Statement of qualifications and experience
- GM No. 2 to 21.A.243(d) Data requirements - Statement of the qualification and experience-Organisations designing minor changes to type design or minor repairs to products, para (1.)
- GM No. 1 to 21.A.245 Requirements for approval, para (4.1)
- GM 21.A.247 Significant changes in the design assurance system, para (2.)

GM 21.A.265(b) Use of the Handbook, para (1.)

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Link:

https://www.easa.europa.eu/en/faq/20107

What are the expectations of the Agency in respect to the appointment of

CVEs?

Answer

The Agency expects the DOA Holder, first of all, to:

- properly define the CVE function (Independent Checking Functions) and associated responsibilities:
  - Approval by signing of all compliance documents, including test programmes and data, necessary for the verification of compliance with the applicable CS and environmental protection requirements as defined in Type Investigation programme;
  - Approval of the technical content (completeness, technical accuracy...), including any subsequent revisions, of the manuals approved by the Agency (Aircraft Flight Manual, the Airworthiness Limitations section of the Instructions for Continued Airworthiness and the Certification Maintenance Requirements (CMR) document, where applicable).
- ensure appropriate level of independency, meaning that the CVE must not be involved in the creation of the compliance data.

To put in place procedures covering, as a minimum, the following:

- Role Description
  - tasks and responsibilities
- Independence
  - signatory flow (to be properly defined)
  - design engineer/ CVE ratio and quantity (all relevant technical fields have to be covered by design and compliance verification engineers)
  - availability provisions
  - use of external CVEs
- Nomination and Training
  - selection/ nomination process flow
  - selection/ nomination team and process when the DO has already competence for the technical field in house;
  - selection/ nomination team and process when the DO has no competence for the technical field in house;
  - minimum nomination/qualification criteria are to be defined
  - scope of authorisation
  - provisions for records (records to be produced by the DO for the nomination of a CVE)
  - evidence that the nominated CVE has accepted the role
  - training policy
- External CVEs
  - DO Interface Document or equivalent

- Provisions to maintain the Approval as CVE.

Notes:

- During the Initial Investigation Process (before the Design Organisation Approval is granted) the CVEs must have been properly authorised internally under the appropriate procedures prior to the competence assessment by the Agency.
- The results of the assessments of competence are used by the DOA Team to determine compliance or non-compliance of the Design Organisation with 21A.243(d) and 21A.245(a), they do not constitute an approval or rejection of the individual.
- During the Surveillance process the DOA is expected to nominate the CVEs, within the approved Scope of Approval, according to the appropriate procedures. Therefore the DOA is not requested to notify the Agency but to provide this information during regular surveillance activities.
- In case of a Significant Change to extend the Scope of Approval, the DOA must notify the Agency and proceed according to the appropriate procedures.

For further details please refer to the presentation Independent Checking Function Assessment.

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Link:

https://www.easa.europa.eu/en/faq/20110

Can an electronic management system fulfil the requirements for a DOA handbook and procedures?

Answer

Yes.

The term “handbook and procedures” can be understood as any means to document a DO’s processes and procedures. This can be:

- an online Integrated Management System with flowcharts and descriptions embedded;
- an online system referring to single documents;
- a classic handbook with reference to online procedures;
- or any other combination.

In any case, the Management System should clearly identify the DO relevant content and the means to update the system. Furthermore Agency access to the system or copy of the relevant information should be made available.

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Link:
https://www.easa.europa.eu/en/faq/20112

Can you provide me any guidance or template, how I should write a DOA handbook?

Answer

EASA provides a DOA handbook template providing guidance for drafting a DOA handbook here. The template has to be adapted to your company's scope of work, organisation and the way of working.

Be aware that this DOH template is not a standard manual, does not introduce new or modified rules and does not constitute any legal obligations or right for the Agency or the organisations. It must not be regarded as formally adopted Acceptable Means of Compliance (AMC) or Guidance Material (GM).

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Link:
https://www.easa.europa.eu/en/faq/20104

General

How should I, as a DOA holder, setup the interface with a Maintenance organisation for the first installation of a design change?

Answer

Please refer to the good practices published on EASA website.

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Link:
https://www.easa.europa.eu/en/faq/20100

Why should I, as a DOA holder - having been granted the privilege to

approve compliance documents, submit any compliance document to the Agency?

Answer

In accordance with 21.A.257(b) the DOA holder shall allow the Agency to review any compliance document and make any inspection (also in terms of tests witnessing) to check the validity of the final declaration of compliance submitted by the DOA holder at the end of a certification process.

Nevertheless, the Agency is involved at an early stage in the certification process, and can use the Certification Programme for establishing its “level of involvement”. The Agency can agree with the DOA holder that certain compliance documents are accepted, without further verification, under the DOA privilege.

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Link:
https://www.easa.europa.eu/en/faq/20099

How can I learn about the Agency's activities regarding design organisations?

Answer

For Agency's structure dealing with Design Organisations, please visit https://www.easa.europa.eu/the-agency/agency-organisation-structure.

For Agency's activities regarding Design Organisations, please visit thedesign organisations page on EASA website.

For different applications related to Design Organisations, please visit https://www.easa.europa.eu/document-library/application-forms.

For being notified about the Agency's activities regarding Design Organisations, please subscribe to EASA Updates.

Queries related to Design Organisations can be sent to: doa [at] easa.europa.eu (doa[at]easa[dot]europa[dot]eu).

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Link:
https://www.easa.europa.eu/en/faq/20098

Do I, as a DOA holder, need to obtain confirmation from the maintenance organisation that my design change has been incorporated on a specific product?

Answer

No. After the design change is approved, there is no requirement on a design organisation to keep managing the configuration control of the product(s) on which its design changes are installed. Thus, it is not mandatory to collect confirmation records from the organisations performing the installation of the design changes.

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Link:
https://www.easa.europa.eu/en/faq/20101

Can a Type Certificate Holder (TCH) Split Part-21 Responsibilities Between Its Own DOA and Another DOA Holder (DOAH) on a Project-by-Project Basis?

Answer

No, the regulatory framework does not permit the discharging of the obligations of the TCH to be divided between different DOAs on a project-by-project basis.

When a TCH has obtained their own DOA and they decide to fulfil the obligations as TCH using this DOA they need to do so in full.

As a result, a TCH cannot apply a mixed compliance model whereby:

- for certain projects, it discharges its obligations under point 21.A.44 directly through its own DOA; and
- for other projects under the same TC, it contracts another organisation to discharge those same obligations on its behalf under point 21.A.2.

A project-based allocation of the same TC responsibilities between different organisations is not permitted, as it would undermine the clear assignment of accountability required by Part-21 and could give rise to safety concerns. The single DOA in charge will be able to maintain a

100% overview and be responsible for the Continued Airworthiness, configuration control and other matters concerning airworthiness.

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01/06/2026

Link:
https://www.easa.europa.eu/en/faq/143689

(Flight) Testing

Typically, some ground and flight tests are performed on each production aircraft. Is a Production ground and flight test program to be considered part of the type design?

Answer

When it is necessary to define a test program – ground or flight – to determine (e.g. by comparison) the airworthiness and the characteristics of production aircraft, then such a test program would meet the criteria of 21.A.31(a)4, and consequently should be considered as design data, and part of the type design.

Test programmes defined by the design organisation as part of the type design are the often integrated into the production organisation's manufacturing data. Additional tests to verify and ensure the quality of the product may be introduced by the production organisation into its test programme as long as they do not interfere with the approved type design data or render/make the tests defined in the approved type design ineffective.

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Link:
https://www.easa.europa.eu/en/faq/20119

For certification tests performed or witnessed by the Agency, what is the purpose of the additional statement of compliance (ref 21.A.33(e))?

Answer

The intent of the requirement 21.A.33(e) is to ensure that before any test witnessed by the Agency, the applicant have determined that the conditions of 21.A.33(b) are met.

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Link:
https://www.easa.europa.eu/en/faq/20120

DOA Capabilities (technical fields)

My company is involved in software / complex electronic hardware installation. What are the expectations of the Agency in this field of expertise?

Answer

Design Organisations involved in the certification of products integrating Software (SW) or Airborne Electronic Hardware (AEH) must have competence on how compliance will be demonstrated to applicable requirements (CS XX.1301 and CS XX.1309), taking into account the related AMC (AMC 20-1, AMC 20-3 and AMC 20-115) and international standards (Eurocae ED-12, ED-80). A key aspect to be considered is the classification of the failure condition associated to the function installed, the so-called DAL (Design Assurance Level).

When an equipment has its own approval (e.g. ETSOA or equivalent national equipment approval), this may be used to demonstrate compliance with some requirements of the established certification basis, particularly for those requirements and for those functions which are covered by the equipment approval standard. However, appropriate demonstration and verification of compliance with regards to aspects of the installation of the equipment must be provided by the DOA holder (in line with AMC xx.1309 aspects related to “Highly Integrated Systems” and applicable references). Note that the outcome of this activity is directly dependent on the classification of the failure condition associated to the malfunction of the function(s) ensured by the equipment [DAL].

If installation is requesting additional requirements (CS-xx, CRIs, etc.), and unless the latter have been as well covered by the applicant in the demonstration of compliance to ETSO standards, the compliance to these additional requirements/functions has to be assessed by the DOA holder. Hence the DOA holder should have access to the DDP and, when required, also to corresponding SW/AEH documentation (e.g. PSAC/PHAC, SAS/HAS, SCI/HCI). This SW/AEH documentation ensures to the DOA holder the DALs, the compliance of development process to SW and AEH standards, and provide information on SW/AEH and equipment Part Numbers, ETSO compliance, etc.

Please also check out the presentation on Investigation and Surveillance of Organisations

performing Software and Airborne Electronic Hardware activities published as best practices on the EASA website.

Last updated:
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Link:
https://www.easa.europa.eu/en/faq/20162

What are the expectations of the Agency in respect to environmental protection (EP) competences within a design organisation?

Answer

DOA holders should have knowledge of the EASA EP certification specifications (ICAO Annex 16 Volumes I and II, CS-36 and CS-34) and the associated GM and AMC (Appendix A to GM 21.A.91 section 8 and the ICAO Environmental Technical Manual) applicable to the scope of their DOA.

Last updated:
23/11/2015

Link:
https://www.easa.europa.eu/en/faq/20137

Can a DOA Holder issue a compilation of EASA approved revisions to the Airworthiness Limitations Section (ALS) of the Instructions for Continued Airworthiness (ICA)?

Answer

Already approved temporary revisions to the ALS of the ICA can be compiled as a new revision and released by one DOA Holder under privilege 21.A.263(c)(3) provided the following conditions are met:

- the new ALS revision must consist only in compiling already EASA approved data (temporary revisions or any other means proposed to update the ALS);
- the revision must include clear information about the EASA approval of the technical content of the ALS, with references to the relevant approval letters;
- the DOA approval statement of 21.A.263(c)(3) can be used but with explanations that it is only related to the compilation of previously EASA approved data, with no further technical

change

Last updated:
23/11/2015

Link:
https://www.easa.europa.eu/en/faq/20139

What scope of work / competences are needed for a DOA holder to approve external livery design changes (e.g. painting or adhesive films)?

Answer

Design changes introducing external livery modifications can be approved after compliance is demonstrated with requirements from a combination of disciplines such as Cabin Safety, Structures and Flight/Performance, depending on the type of aircraft, extension of the livery and the location. The effect on existing instructions for continued airworthiness must be also assessed.

Last updated:
23/11/2015

Link:
https://www.easa.europa.eu/en/faq/20134

Can I, as DOA holder, approve a permanent minor repair design as a revision of the same repair dossier which was initially approved as a temporary minor repair solution?

Answer

A permanent minor repair design could be a revision of an initial temporary/time limited minor repair design, provided that the permanent repair would be similar to the temporary repair design. Aspects to be considered are:

- The classification of the permanent repair design shall not be different from the classification of the temporary repair.
- The limitations associated to the temporary repair design should be updated and/or removed through the permanent repair design.
- It shall be clearly marked on the design data whether it concerns the temporary repair design or the permanent repair design.

- Any additional compliance demonstration activities shall be added to the design data for the permanent repair design.
- New / updated repair instructions shall be issued for the permanent repair design.
- Documentary traceability of both the temporary repair design and the permanent repair design shall be kept and ensured.

Last updated:
07/06/2016

Link:
https://www.easa.europa.eu/en/faq/20135

Can a DOA Holder replace pages of an approved Aircraft Flight Manual (AFM)? Which constraints should be kept in mind?

Answer

With new privilege 21.A.263(c)(4) published in Commission Regulation (EU) No 748/2012, DOA Holders can now approve revisions affecting the approved sections of the AFM. This privilege is not an EASA 'delegation', but a right given to DOA Holders. Consequently, the statement "EASA approved" traditionally shown on each page of the AFM shall be deleted or replace by a statement "Approved" in pages revised and approved by the DOA Holder. The AFM log of revisions shall indicate who has approved each revision, whether EASA or one DOA Holder. Supplements to the AFM proposed as part of an STC will remain EASA approved.

For non-TC holders, the publication of a revision to an AFM is only possible as a supplement.

Last updated:
23/11/2015

Link:
https://www.easa.europa.eu/en/faq/20138

What are the expectations of the Agency in respect to DOA competencies and procedures in relation to the approval of changes to jet fuel specifications?

Answer

Particular DOA procedures/instructions as well as competencies to deal with jet fuel aspects at engine/aircraft level will have to be ensured by the DOA holder.

The EASA Certification Memorandum ref. EASA CM – PIFS – 009 is intended to present the EASA policy on approval of fit for purpose fuels by means of appropriate specification control bodies and the inclusion of these fuel specifications in the aircraft AFM/RFM limitations.

As part of the certification processes for aircraft, engines and auxiliary power units, applicants are required to establish the list of fuel grades and fuel specifications, including the fuel additives specifications, which are compatible and fit for purpose with their product. The list that specifies the approved fuels at product level is regarded as defining the Operating Limitations of that product.

For engines and APUs, the list of compatible fuel and fuel additives (especially mandatory additives) should be given in the instructions for installing the engine or APU (ref CS-E 20, CS-APU 20). At aircraft level, the fuel designations and fuel additives are recorded in the aircraft TCDS and in the AFM/RFM as a limitation.

Because the approved fuels and fuel additives are operating limitations, a change to an existing fuel specification and/or fuel additives leading to a change in the list of approved fuels and/or additive listed in the AFM or RFM, or the introduction of a new fuel specification and/or additive at product level, is a major design change to the type design.

Last updated:
23/11/2015

Link:
https://www.easa.europa.eu/en/faq/20136

Acceptance of applications from foreign design organisations

I am a foreign applicant for a Supplemental Type-Certificate (STC) or a foreign applicant (other than TC holder) for a Major Repair. What conditions do I need to meet?

Answer

EASA will grant the approval only if the product to be modified or repaired is EASA approved, and if the STC/repair initial approval from the SoD has been issued already, unless otherwise specifically regulated in a Bilateral Aviation Safety Agreement (BASA) with the SoD.

Furthermore, a Bilateral Aviation Safety Agreement (BASA) with the concerned third country shall be in place, or the conditions of article 8.2 of Regulation 748/2012 shall be fulfilled in

combination with a Working Arrangement (WA).

A Design Organisation Approval (DOA) is not required and will not be issued by the Agency.

Last updated:
13/01/2017

Link:
https://www.easa.europa.eu/en/faq/21844

I am a foreign design organisation and would like to receive the privilege to issue Minor Change or Repair approvals on behalf of EASA. What conditions do I need to meet?

Answer

A Working Arrangement (WA) between the Agency and the foreign competent authority needs to be in place.

Furthermore, the applicant requires a Design Organisation Approval (DOA) in accordance with article 8.1 of Regulation (EU) No 748/2012.

EASA may also apply ”*proof of need*” criteria to assure that the resources consumed for the issuance and surveillance of the foreign DOA are not disproportionate to the privilege granted to the foreign applicant.

Last updated:
13/01/2017

Link:
https://www.easa.europa.eu/en/faq/21845

I am a foreign design organisation and would like to apply directly to EASA for a Minor Change or Repair approval in accordance with 21.A.92 (b) of Regulation 748/2012. What conditions do I need to meet?

Answer

No further conditions need to be met.

Last updated:
13/01/2017

Link:
https://www.easa.europa.eu/en/faq/21846

What is the impact of this policy for existing foreign DOA holders?

Answer

The policy has no retro-active impact on previously issued DOA certificates and activities performed by those organisations within their current approved scope. Consequently, the policy only applies to applications not covered by existing design organisation approvals.

Last updated:
13/01/2017

Link:
https://www.easa.europa.eu/en/faq/21847

What has triggered this policy?

Answer

The Agency occasionally receives applications from foreign design organisations located outside the 32 EASA countries. This regularly raises questions about the conditions for the acceptance of such applications.

Last updated:
13/01/2017

Link:
https://www.easa.europa.eu/en/faq/21842

What are the basic considerations for this policy?

Answer

The ICAO legal framework aims at a global system of graded responsibilities for the State of Design (SoD) and the State of Registry (SoR). In this system, the SoR authority relies to a large extent on the oversight activities performed by the SoD. From this perspective, accepting applications from foreign design organisations without any further conditions compared to applications from “domestic” organisations would be too far-reaching and leading to the deterioration of central ICAO principles, namely the SoD principle.

Last updated:
13/01/2017

Link:
https://www.easa.europa.eu/en/faq/21843

I am a foreign applicant for a Type-Certificate (including post TC changes and repairs). What conditions do I need to meet?

Answer

EASA will grant the approval only if the initial approval from the SoD has been issued already.

Furthermore, a Bilateral Aviation Safety Agreement (BASA) with the concerned third country shall be in place, covering:

- Initial certification,
- Continuing airworthiness (CAW), and
- Production.

A Design Organisation Approval (DOA) is not required and will not be issued by the Agency.

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16/01/2017

Link:
https://www.easa.europa.eu/en/faq/21853

Flight conditions & Permit to Fly

There are several specific purposes defined for a permit to fly (reference 21.A.701). Can I, as a DOA holder, have the privilege to issue a permit to fly for any of these purposes?

Answer

It is not possible for a DOA holder to have the privilege to issue a permit to fly (PtF) for the purpose listed under 21.A.701(a)15; for all other purposes it is possible.

To receive the privilege to issue a PtF, your DOA has to apply for it using the form FO.DOA.00082 (Application for Significant Changes to Design Organisation Approval). Also you have to issue procedures which describe how the flight conditions are defined and approved under your design organisation. The procedures shall ensure that necessary

inspections, tests and analysis are performed before the flight conditions are approved. For more detailed information contact your DOATL.

Last updated:
23/11/2015

Link:
https://www.easa.europa.eu/en/faq/20122

Can you please clarify the differences between Forms 18A, 18B, 20A and 20B?

Answer

EASA Form 18a (*form to be created by the design organisation, see AMC 21.A.263(c)(6)*): This Form shall be used by the design organisation only when procedures have been developed by the DO to support the privilege of 21A.263(c)(6) and within the related scope.

EASA Form 18b *(included in form FO.CERT.00037)*: This Form shall be used by Non DOA, or by design organisations not holding the privilege.21.A.263(c)(6).

EASA Form 20a *(form provided by respective NAA)*: This PtF Form shall be used by the design organisation when the DO does not hold privilege 21.A.263(c)(7). The Form 20a will be then submitted to the NAA of the country of registration of the A/C who will issue then the PtF.

EASA Form 20b *(form to be created by the DO, see Part 21 - Appendix IV)*: This PtF Form shall be used by the design organisation when the DO holds the privilege 21.A.263(c)(7). In this case a copy of this PtF shall be submitted to the competent NAA at earliest opportunity but not later than 3 days after issuance of the PtF.

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23/11/2015

Link:
https://www.easa.europa.eu/en/faq/20123

Can I, as a DOA holder, use my privilege to approve a permit to fly for an aircraft registered in a different country? Even when that country is not a member of the EU?

Answer

A DOA holder can issue a Permit to Fly for an aircraft registered in any EASA Member State but not for aircraft registered in other countries.

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23/11/2015

Link:

https://www.easa.europa.eu/en/faq/20124

Are the European operational rules applicable to an aircraft flying under a permit to fly?

Answer

European operational rules in general also apply to aircraft flying under a permit to fly but they do not apply to flights related to the introduction or modification of aircraft types conducted by design organisations (Comm. Reg. (EU) No 965/2012, Article 6(3)).

Generally, flights related to the introduction or modification of aircraft types conducted by design organisations are performed under a Permit to Fly issued for the following purposes:

- Development (21.A.701(a)1)
- Showing compliance with regulations or certification specifications (21.A.701(a)2)
- Design organisations or production organisations crew training (21.A.701(a)3)
- Market survey, incl. customer's crew training (21.A.701(a)9)
- Exhibition and air show (21.A.701(a)10)
- Flying aircraft meeting the applicable airworthiness requirements before conformity to the environmental requirements has been found (21.A.701(a)14)

Also some flights performed under a Permit to Fly issued for the purpose of 21.A.701(a)11 (Flying the aircraft to a location where maintenance or airworthiness review are to be performed, or to a place of storage) could fulfil the description of Article 6(3) of 965/2012, but this must be validated on a case-by-case basis.

Such flights shall be operated considering national rules, regardless of whether they are conducted by Design Organisations, a sub-contracted organisation or an individual.

In case the operational rules are not self-evident, the flight conditions should explicitly identify the applicable OPS rules and conditions.

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23/11/2015

Link:

https://www.easa.europa.eu/en/faq/20133

Can I, as a DOA holder, approve flight conditions and issue permits to fly for ferry flights?

Answer

Yes, as long as you have the privilege to approve flight conditions and issue permits to fly in the terms of approval of your DOA, and you comply with the conditions and limitations that are mentioned there. In all cases the privilege to approve flight conditions by a DOA holder is limited to cases where the approval is related to the safety of the design. And the DOA Holder can only obtain the privilege to issue a permit to fly for in-service aircraft when it has demonstrated that it is able to control the configuration of the aircraft.

It is important to take into account that the mentioned privileges are always related to the technical scope of the DOA. For example, a DOA which has those privileges in the terms of approval may issue a permit to fly to perform a ferry flight with an aircraft which has an expired and not still implemented airworthiness directive. Nevertheless, in order to do that the DOA should have the proper design capability, as reflected in the terms of approval, to evaluate the design aspects that are related to the impacted airworthiness directive and to be able to substantiate that the aircraft is capable of safe flight. For example, DOAs not having the avionics technical field in the terms of approval cannot approve a permit to fly to perform a ferry flight when the overdue airworthiness directive is related to avionics, even having the privileges to approve flight conditions and issue permits to fly.

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23/11/2015

Link:
https://www.easa.europa.eu/en/faq/20121

For production flight tests for aircraft containing unapproved design elements, can approval of the Flight Conditions be performed solely under the TC Holder’s DOA?

Answer

Newly-produced aircraft are usually initially flown under a Permit to Fly (PTF) to perform production flight tests, enable the transfer of the aircraft to a completion centre and to eventually deliver the aircraft to the customer. If such aircraft fully conform to an already

approved design, 21.A.710(b) indicates that approval of the Flight Conditions (FCs) associated to the PTF is not related to the safety of the design.

However, the configuration of newly-produced aircraft required to be flown often includes concessions or changes to type design yet to be approved. 21.A.710(a) indicates that the approval of FCs associated in this context is related to the safety of the design and that such an approval then needs to be made either by the Agency or by an appropriately approved design organisation.

TC holders usually hold both a DOA and a POA with respective FC and PTF privileges. For newly-produced aircraft with unapproved concessions or design changes, it is clarified that it is NOT necessary that two separate kinds of approvals of FCs are required to be issued by the TC holder, i.e. approval of the FCs for the aspects not related to the safety of design under their POA and approval of the FCs for the aspects related to the safety of design under their DOA. It is acceptable and sufficient that approval of FCs for such flights is performed solely under the DOA.

The approval of FCs related to the safety of design for newly-produced aircraft can also potentially be more efficient by the TC holder defining and approving an "envelope" of FCs under the DOA, including flight purposes related to the safety of design and not related to the safety of design, to cover the set of flights required to be performed by the design organisation and the production organisation, respectively. These FCs could remain valid provided that in between each flight the only changes relevant to the aircraft configuration is the approval status of the design (i.e. proceeding from unapproved to ultimately fully approved). However, if there are changes to the physical configuration of the aircraft during the testing, limitations or conditions may change and the FCs would need to be reassessed and possibly reissued to reflect the incorporated changes to the configuration.

When the design of the aircraft is already fully approved before the first flight, the FCs need to be approved under the POA or by the Competent Authority. Within companies holding both the DOA and POA, the same staff could be nominated to approve the FC under either DOA or POA privileges as applicable.

Last updated:

03/03/2026

Link:

https://www.easa.europa.eu/en/faq/143301

Obsolescence of Spare Parts for Products No Longer in Production

Does continuing airworthiness require a Type Certificate Holder (TCH) to ensure manufacturing spare parts indefinitely?

Answer

No. Continuing airworthiness obligations (as per EASA Part 21) do not necessarily imply an obligation for the TCH to sustain production of spare parts indefinitely. In many cases, the product may have been out of production for decades, and maintaining the industrial capability to manufacture certain parts may no longer be economically or technically sustainable.

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29/05/2026

Link:
https://www.easa.europa.eu/en/faq/143667

Is Part 21 intended to regulate long-term production sustainability?

Answer

Part 21 primarily establishes the regulatory framework for certification, design, and production approvals. It is not intended to regulate commercial or industrial decisions related to sustaining spare parts production over the long term.

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29/05/2026

Link:
https://www.easa.europa.eu/en/faq/143668

How can operators address spare parts obsolescence? Can another Design Organisation Approval holder support the design and production of obsolete spare parts?

Answer

Yes. Subject to the applicable approval pathways, another DOA holder with the appropriate scope of work, sufficient access to the design data and an adequate production interface can support the development, approval and supply chain of alternative solutions through changes to the type certificate. Refer to **List of all EASA DOA approvals** under Design Organisations

Approvals | EASA.

Last updated:
29/05/2026

Link:
https://www.easa.europa.eu/en/faq/143669

Does spare parts obsolescence automatically constitute an unsafe condition?

Answer

No. Obsolescence in itself does not automatically result in an unsafe condition. However, it may become a contributing factor to operational or maintenance risks if suitable mitigation measures are not available

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29/05/2026

Link:
https://www.easa.europa.eu/en/faq/143670

Should spare parts obsolescence be considered within a Safety Management System (SMS)?

Answer

Yes. From an SMS perspective, spare parts obsolescence may be treated as a potential hazard that should be assessed and monitored. This relates both to the TC Holder and operator of the aircraft. The associated risks depend on factors such as operational exposure, availability of alternatives, and maintenance strategies.

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https://www.easa.europa.eu/en/faq/143671