



Annex 7

Approved Design Organisations, Design Certificate Holders and Authorised Persons for Design Approval

Introduction

This annex is an integral part of the CASA Surveillance Manual (CSM), which should be referenced at all times. To allow for more frequent revisions, this annex can be updated independent of the CSM and other annexes. The process of updating this annex requires verification and approval from its owners and sponsors, as well as from Coordination and Safety Systems (CSS). An updated version can only be published once CSS has finalised the format, with the latest revision history data included in the revision table.

Revision history

Revisions to this annex are recorded below in order of the most recent first.

Version N°.	Date	Parts / sections	Details
5.0	December 2019	Section 2.3	Change of where to locate Health Check mandatory elements
4.0	April 2019	Inclusion of Introduction and Revision history.	These inclusions allow for updates and revisions independent of the CSM and other annexes.
4.0	April 2019	Section 2.1	Removal of recommended Health Check timeframes.
4.0	April 2019	Section 3	Removal of recommended surveillance intervals.
4.0	April 2019	Section 4	Addition of third-party audits.

1 Overview

This Annex provides instructions for conducting surveillance of CASR Subpart 21.J Approved Design Organisations, CAR 30 Design COA, and Authorised Persons for CASR 21.095, 21.006A, 21.007, 21.009 and Subpart 21.M and contains information relating to the following:

- Systems and Elements
- Systems and Elements – Health Checks
- Surveillance Currency Guide
- Information Sources.

2 Systems and Elements: Approved Design Organisations, Design Certificate Holders and Authorised Persons for Design Approval

The audit technique involves assessing the documented system and comparing it against the actual system processes. The system is assessed for compliance and sampling conducted as appropriate. The assessment of the system is achieved by a questioning technique using the four attributes (12 components) of the Management System Model (MSM), see CSM Sections 3.3.3 System attributes – Management System Model and Section 3.3.3.1 – Systems attributes (table).

2.1 CASR Subpart 21.J Approved Design Organisations

Table 1: System and Elements

Systems	Elements
ADO Activity	Approval Activity
	Advice Activity
	Certification activity
	Experimental Certification Activity
	Facilities, Tooling and Equipment
	Data and Documents
Administration	Engineering Operations
	Personnel Standards
	Exposition
Design Assurance	Design Assurance System
	Quality Assurance
	Subcontractors
	Coordination with other ADOs

Table 2: ADO Elements

SYSTEM: ADO Activity	
ELEMENT: Approval Activity	
This element includes all personnel, documentation and processes for carrying out aircraft or aircraft component design approval activities.	
Prompts:	
Approval activity procedures	Approval of technical data
Subcontractor management	No unsafe features
Project coordination	Design Advice
Document configuration control	Approval Document
Technical Data	Activity within scope of approval certificate
Testing	Major/minor determination
ELEMENT: Advice Activity	
This element includes all personnel, facilities, equipment, documentation and processes for carrying out advice activities.	
Prompts:	
Advice activity procedures	Technical Data
Subcontractor management	Activity within scope of approval certificate
ELEMENT: Certification Activity	
This element includes all personnel, facilities, equipment, documentation and processes for carrying out certification activities.	
Prompts:	
Certification activity procedures	Testing
Subcontractor management	Activity within scope of approval certificate
Project coordination	Technical Data
ELEMENT: Experimental Certification Activity	
This element includes all personnel, facilities, equipment, documentation and processes for carrying out experimental certification activities.	
Prompts:	
Experimental Certification activity procedures	Project coordination
Subcontractor management	Activity within scope of approval certificate
Technical Data	
ELEMENT: Facilities, Tooling and Equipment	
This element includes the facilities and all tooling and equipment held, used, contracted, loaned or borrowed by the organisation for the purpose of all activities included in ADO's COA.	

SYSTEM: ADO Activity	
Prompts:	
Adequacy for all activities	Calibration
Identification	Borrowing/Lending
Storage	Training on specialist tools/equipment
Maintenance	Subcontracting
Persons responsible	Independent Monitoring
ELEMENT: Data and Documents	
This element includes all technical references and data, approval documents, design drawings, regulatory documentation and quality/procedures manuals used in the course of carrying out design, certification, advice and experimental certification activity.	
Prompts:	
Adequacy for all activities	Borrowing/Lending
Availability	Records retention
Storage	Persons responsible
Amendment Level Control	Independent monitoring

Table 3: Administration Elements

SYSTEM: Administration	
ELEMENT: Engineering Operations	
This element addresses the systems that ensure that ADO contains its engineering operations to those authorised by legislation and its certificate of approval; and is adequately resourced to carry out those operations. This is primarily achieved through the use of properly structured organisation with appropriate responsibilities and communication channels. Appropriate key personnel such as Accountable Manger and Head of Design are key links for ensuring engineering operations are appropriately controlled.	
Prompts:	
Organisational structure, roles and responsibilities	Support staff
Key management positions	Organisation change management
Adequate number of personnel	Procedure change management
Adequate facilities	Independent monitoring
ELEMENT: Personnel Standards	
The ADO is required to maintain sound and effective management structure that incorporates a design assurance system. The standard of engineering personnel, including third party providers, is required to be documented detailing qualifications, knowledge and experience as well as ongoing professional development.	
Prompts:	
Accountable Manger	Head of Design
Periods of absence of key personnel	Subcontractors
Persons who carry out activities listed in ADO certificate – candidate identification and training	Persons who carry out activities listed in ADO certificate – Professional development program
Persons who carry out activities listed in ADO certificate – candidate assessment for qualifications, training and competency	Individual workload
Persons who carry out activities listed in ADO certificate – candidate appointment	Independent monitoring
ELEMENT: Exposition	
This element includes contents of exposition and changes to exposition.	
Prompts:	
Changes to exposition	Changes to scope of approval certificate
Communications	Record keeping

Table 4: Design Elements

SYSTEM: Design Assurance	
ELEMENT: Design Assurance System	
This element includes the systems and processes that the ADO uses to carry out the various activities listed in its certificate. It sets out the specific planned and systematic actions and the associated forms and checklists related to conduct of those activities.	
Prompts:	
Compliance assurance	Compliance planning
Compliance demonstration	Compliance finding
Ensuring no unsafe feature	Independent checking
ELEMENT: Quality Assurance	
This element includes the procedures the ADO uses to monitor the effectiveness of its design assurance system.	
Prompts:	
Independent monitoring	Reporting operational and safety concerns
Frequency of assessment and audits	Design assurance system manual configuration control
ELEMENT: Subcontractors	
This element includes all personnel, facilities, equipment, documentation and processes for authorising and managing the subcontractors.	
Prompts:	
Procedures for authorising subcontractor	Element of ADO DASM for which subcontractor is responsible
Exchange of information between ADO and subcontractor	Tooling, facilities and equipment
ELEMENT: Coordination with other ADOs	
This element includes all personnel, facilities, equipment, documentation and processes for carrying out design activities in coordination with other ADOs.	
Prompts:	
Procedures for coordinating design activities	Conditions and limitations
Scope of design activities carried out by other ADOs	Partial or incomplete finding of compliance by other ADO
Tooling, facilities and equipment	Exchange of information between ADOs

2.1.1 CAR 30 Design COA

The CASA description of a CAR 30 Design COA consists of two systems incorporating five elements.

Table 5: CAR 30 Design COA Systems and Elements

Systems	Elements
Aircraft Design	Tooling and Equipment
	Data and Documents
	Design Activity
Administration	Engineering Operations
	Personnel Standards

Table 6: Aircraft Design Elements

SYSTEM: Aircraft Design	
ELEMENT: Tooling and Equipment	
This element includes all tooling and equipment held, used, contracted, loaned or borrowed by the organisation for the purpose of designing aircraft or aircraft components.	
Prompts:	
Adequacy for design activities	Borrowing/Lending
Identification	Training on specialist tools/equipment
Storage	Subcontracting
Maintenance	Persons responsible
Calibration	Independent monitoring
ELEMENT: Data and Documents	
This element includes all technical references and data, design drawings, regulatory documentation, and quality/procedures manuals used in the course of carrying out aircraft or aircraft component design activities.	
Prompts:	
Adequacy for design activities	Borrowing/Lending
Availability	Records retention
Storage	Persons responsible
Amendment level control	Independent monitoring
ELEMENT: Design Activity	
This element includes all personnel, facilities, equipment, documentation and processes for carrying out aircraft or aircraft component design activities.	
Prompts:	
Design activity procedures	Independent checking
Subcontractor management	Approved data
Project coordination	Major damage advice
Document configuration control	Design compliance certificates
Compliance planning	Experimental certificates
Compliance demonstration	ELOS determinations
Certification testing	Reporting errors and deficiencies
Compliance finding	Investigations
No unsafe features or characteristics	Activities within scope of approval certificate
Design Advice	Independent monitoring

Table 7: Administration Elements

SYSTEM: Administration	
ELEMENT: Engineering Operations	
<p>This element addresses the systems that ensure the authorisation holder contains its engineering operations to those authorised by legislation and is adequately resourced to carry out those operations. This is primarily achieved through the use of a properly structured organisation with appropriate responsibilities and communication channels. Appropriate key personnel are a key link in ensuring engineering operations are not only contained, but are appropriately controlled. Examples include the Accountable Manager and Head of Design.</p>	
Prompts:	
Organisational structure, roles and responsibilities	Support staff
Key management positions	Organisation change management
Adequate number of personnel	Procedure change management
Adequate facilities	Independent monitoring
ELEMENT: Personnel Standards	
<p>The authorisation holder is required to establish and maintain an appropriate organisation, with sound and effective management structure that incorporates a design assurance system where applicable. The standards of engineering personnel, including third party providers, is required to be documented detailing qualifications, knowledge and experience as well as on-going professional development.</p>	
Prompts:	
Head of Design	Subcontractors
Persons who carry out design activities – candidate identification and training	Individual workload
Persons who carry out design activities – candidate assessment	Periods of absence of key personnel
Persons who carry out design activities – Professional development program	Independent monitoring

2.2 Design Approval Authorised Persons for CASR 21.095, 21.006A, 21.007, 21.009 and Subpart 21.M

The CASA description of Design Approval Authorised Persons consists of one system incorporating two elements.

Table 8: Authorised Persons Systems and Elements

Systems	Elements
Authorised Persons for CASR 21.095, 21.006A, 21.007, 21.009 and Subpart 21.M	Data and Documents
	Design Approval Activity

Table 9: Authorised Persons Elements

SYSTEM: Authorised Persons for CASR 21.095, 21.006A, 21.007, 21.009 and Subpart 21.M	
ELEMENT: Data and Documents	
This element includes all technical data, design drawings, regulatory documentation, maintenance systems and quality/procedures manuals used in the course of carrying out aircraft or aircraft component design approval.	
Prompts:	
Availability / Adequacy (dependent upon planned activities)	Amendment – current amendment service – Ref: CASA ruling No 5/2003 Use of Electronic Data
Identification	Borrowing/Lending
Storage	Responsible and accountable
Handling	Monitoring and improvement
ELEMENT: Design Approval Activity	
This element includes all personnel, facilities, equipment, documentation and processes for carrying out aircraft or aircraft component design approval activity.	
Prompts:	
Organisational structure, duties and responsibilities	Project management and control
Infrastructure	Contracting
Training	Approval process
Monitoring and improvement	Procedures manual revision
Activity within instrument of appointment scope	DAMP education and testing
DAMP supervision	

2.3 Health Check

Health Check mandatory elements are available on the CASA Intranet. Details of the current mandatory elements for each authorisation type are published separately to the CASA website.

3 Surveillance Currency Guide: Approved Design Organisations, Design Certificate Holders and Authorised Persons for Design Approval

Surveillance level	Type	Elements
Level 1	Systems Audit	Systems and Compliance
	Health Check	Specific Elements and Compliance
	Post-authorisation Review	Entry Control Elements
Level 2	Operational Check	Design and Approval Activity

Note: Surveillance intervals are determined by the National Surveillance Selection Process (NSSP). Refer to the NSSP planned surveillance schedule for further information regarding surveillance intervals.

4 Information Sources

The following is a non-exhaustive list of information sources that can be accessed to support the assessment of an authorisation holder:

- Authorised Person Design Approval Activity Reports
- Authorised Person Design Advice Records
- surveys
- third-party audits
- regulatory history, findings (Safety Findings and Safety Observations)
- past Surveillance Reports and findings (Safety Findings and Safety Observations)
- EAP information
- Defect Report Service (DRS)
- Regulatory Service activity
- information gathered by the authorisation holder
- external information gathered from industry or other government agencies
- Enforcement action
- past accident/incident history
- Organisation exposition
- Organisation design assurance system manual.

A large portion of this information is available to the surveillance team and authorisation management team via the Data Warehouse using the BusinessObjects application.

Note: For advice on where and how to access required information, refer to CSM Chapter 5 – Information Capture and Access.