UNITED ARAB EMIRATES
MINISTRY OF DEFENCE
SAFETY ENVIRONMENT AND WORTHINESS EXECUTIVE DIRECTORATE

الإمـــــارات العـربيـــــة المتحـــــدة
وزارة الـــــدفـــــــــــاع
الإدارة التنفيذية للسلامة والبيئة والجدارة

MILITARY AIRWORTHINESS AUTHORITY

UNITED ARAB EMIRATES MILITARY AIRWORTHINESS DOCUMENT

UAEMAR 21J MILITARY DESIGN ORGANISATION EXPOSITION

EXPOSITION TEMPLATE

Edition Number	**1.1**
Edition Date	**22 January 2024**
Status	**Approved**

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DOCUMENT CONTROL

DOCUMENT APPROVAL

The following table identifies the persons who have prepared and approved this document.

Edition Number		Authorised by	Date
1.0	Prepared by	United Arab Emirates Military Airworthiness Authority	03 January 2021
	Approved by	Director of the United Arab Emirates Military Airworthiness Authority	03 January 2021
1.1	Prepared by	United Arab Emirates Military Airworthiness Authority	22 January 2024
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DOCUMENT CHANGE RECORD

Edition Number	Edition Date	Status	Reason for change	Sections or pages affected
1.0	03 January 2021	Approved	Initial issue (Based on EASA Design Organisation Handbook Issue 001 dated 18 December 2013)	All
1.1	22 January 2024	Approved	- Modified logo - Addition of SMS section (Based on UAEMAR Basic Regulation Ed. 3.0 dated 08 November 2022)	All

STATUS

The Status of the document can take two values:

Draft: Draft version by the United Arab Emirates Military Airworthiness Authority.

Approved: Approval by the Director of United Arab Emirates Military Airworthiness Authority.

EDITION

Edition numbering will have the following format: **Edition X.Y**

The value of **X** will change after a **major** modification of the document.

The value of **Y** will change after a **minor** modification of the document.

NOTE

1. All changes are indicated by the use of a ‘sidebar’ in the margin. This can be readily cross-referenced using the table at the end of the document which details each change.

EXPLANATORY STATEMENT

This document is based on the requirements of UAEMAR AMC No.2 to 21A.243(a), taking into account the additional requirements as presented in UAEMAR AMC No. 1 to 21A.243(a), and is intended to assist applicants in applying for MDOA and therefore demonstrating the required design organisation capability.

The document addresses the requirements and guidance under specific headings for a MDOA's exposition. The MAA requires that MDOAs retain the default paragraph numbering and headings, as detailed in the example in this document and expanded as necessary, for the purpose of alignment with Appendix F – UAEMAR 21 Requirements Cross Reference Matrix paragraph referencing. Those headings deemed not applicable by the organisation should be identified as such in the MDOE section, with a qualifying statement of why the requirement is Not Applicable (N/A) to the MDOA and the corresponding check-box within Appendix F shall be marked as N/A. All blank checkboxes within the cross-reference matrix will be interpreted as Non-Compliance's.

The content of the exposition has been arranged into parts, sections and subsections. The aim is to collate all the processes and procedures related to a subject under the relevant section in the exposition, irrespective of the location of the regulatory requirement in UAEMAR 21.

The text provided under each section or subsection of the sample exposition provides guidance on the nature of contents to be included. The sections and subsections should be further expanded according to the complexity of the processes and procedures of the MDOA.

Where the content of the exposition requires processes and procedures to be provided, these may be included in other documents provided they are referenced in the exposition and listed in an appendix at the end of this template. However, in that case, the referenced documents form part of the exposition and are subject to the same requirements and controls as the exposition. Processes and procedures included or referred to in the exposition should be of adequate depth and include sufficient details to demonstrate they establish compliance with the applicable requirements of UAEMAR 21.

Duties and responsibilities of individuals as mentioned in the exposition should relate to the obligation of the organisation or the individual under UAEMAR 21, and are not meant to cover employment conditions, performance criteria or administrative functions. Where content of the exposition requires identifying the individual responsible for an action or a decision that is part of a process, it is intended that the individual will be identified by their position title (such as 'Quality Manager') or if applicable, by means that describes their function (such as 'Safety Manager' or 'Data Entry Clerk').

Where content detailed in the exposition deals with records to be created or kept by the organisation, the relevant procedures in the exposition should take into account the following:

- legibility of the record;
- retrieval of records;
- retention period; and
- protection of the records from loss, damage or accidental alteration.

The MAA recommends worksheets, checklists, forms, lists of items and personnel etc. required under the exposition, or associated with the processes or procedures required by the exposition, should be included as appendices at the end of the exposition.

[Insert Organisation Logo here]

[ORGANISATION]

UAEMAR 21J
MILITARY DESIGN ORGANISATION EXPOSITION

This exposition has been developed to meet the United Arab Emirates Military Airworthiness Regulation (UAEMAR) 21J Military Design Organisation Exposition (MDOE) requirements.

MDOE reference number
[xxxx.xxxx.xxxx]

Address of Incorporated Organisation
Address 1
Address 2
Address 3

Telephone: xxx xxxxxxxxx
Facsimile: xxx xxxxxxxxx
Email: xxxx@xxxx.xx

Name / Position: _____

Signature: _____

Date: _____

Copy Number: x of xx

Table of Contents

Amendment Record

This section should set out the amendment record of the exposition. The amendment record may be in the following form.

Edition No.	Amendment Details	Date

Distribution List

This section should include a distribution list to ensure proper distribution of the exposition and to demonstrate to the MAA that all employees involved in design have access to the relevant information. This does not mean that all employees have to be in receipt of a complete exposition but that a reasonable number of copies are distributed within the organisation so that employees may have quick and easy access to this exposition.

Alternately, if the manual is available electronically this section should set out how the electronic version is available throughout the organisation and to individuals outside the organisation.

[TEXT HERE]

EXAMPLE

All employees have direct access to the current issue of the exposition, including the referenced documents, on the [company name's] [database/intranet]. The staff are automatically informed via e-mail each time a new issue or revision is released.

The MAA will be supplied with all issues and revision of the MDOE, including all referenced procedures, via e-mail as pdf-file.

Copy No	Holder

PART 1 – ORGANISATION

1.1 Corporate Commitment by the Accountable Manager

21.A.243(a)1

This section should provide a short explanation of the purpose of the document for the guidance of the Organisation's own personnel, and should give a statement by the Chief Executive Officer and/or Head of Design Organisation (could be the same person), declaring this manual as the basic working document, which has to be followed by all personnel (including design suppliers, if applicable).

EXAMPLE

This exposition and associated documents define the organisation and procedures upon which the UAEMAR Part 21 Subpart J approval of [Organisation name] Military Design Organisation is based as defined in UAEMAR Basic Regulation including all applicable amendments. All documents referenced in this exposition are considered as part of the exposition. The exposition is approved by the undersigned.

The undersigned ensure that:

- This exposition, including the referenced documents, are maintained in conformity with the Design Assurance System and is used as the working document within the [Organisation name] Military Design Organisation.
- All personnel including suppliers are to be aware of the processes described in this MDOE and associated documents and will comply with the requirements of this exposition.
- [Organisation name] Design Organisation has sufficient staff in numbers, competence and experience with the appropriate authority to be able to discharge their allocated responsibilities.
- [Organisation name] Design Organisation's accommodation, facilities and equipment are adequate to comply with UAEMAR 21.
- It is accepted that the procedures included or referred to in this exposition do not override the necessity of complying with any new or amended regulations published by the MAA from time to time where these new or amended regulations are in conflict with these procedures.
- It is accepted that the MAA may investigate and review any report.
- It is understood that the MAA will approve this organisation whilst the MAA is satisfied that these procedures are being followed and work standards maintained; and
- It is further understood that the MAA reserves the right to restrict, suspend, revoke or cancel the UAEMAR 21 Subpart J approval of the organisation if the MAA has evidence that the procedures are not followed, and the standards are not upheld.

Signed by:

Head of Design Organisation	Chief Executive Officer
[Name]	[Name]
[Date]	[Date]

NOTE: Whenever the Accountable Manager/Head of Design is changed, it is important that the new Accountable Manager/Head of Design reviews and signs the statement at the earliest opportunity as part of his/her acceptance by the MAA.

1.2 Responsible Person(s) for Administration of MDOE

21.A.243(c)

The official title and contact details of the person responsible for the administration of the exposition must be stated. The nominated person is responsible for ensuring that the exposition is distributed, controlled, and amended or reissued as necessary.

[TEXT HERE]

1.3 Design Assurance System Changes and MDOE Amendment Procedure

21.A.243(c), 21.A.247

This section should describe which changes to the design assurance system have to be endorsed by the MAA and which can be approved by the Design Organisation (DO). The procedure should also address the internal approval process:

a. Who will approve changes to the MDOE? (Usually the Head of DO, or if properly delegated, the Chief of the Office of Airworthiness);

b. How will this approval be formalised? (e.g. signature on the master copy).

c. How will the issue number identify a significant change endorsed by the MAA and a non-significant change approved by the Design Organisation?

[TEXT HERE]

1.3.1 Classification of Changes to the Design Assurance System

All changes to the design assurance system that are significant to the demonstration of compliance or to the airworthiness and environmental protection of the product shall be approved by the MAA.

Significant changes to the Design Assurance System are:

1. Organisation
    a. Change in the organisation (partnership, supplier sharing design) unless it can be shown that the independent checking function of the showing of compliance is not affected.
    b. Change in the parts of the organisation that contribute directly to the airworthiness (independent checking function, office of airworthiness (or equivalent)).
    c. Change to the independent monitoring principles.

[TEXT HERE]

2. Responsibilities
    a. Change of the management staff assessed for airworthiness competence.
    b. Head of the DO.
    c. The Chief of the Office of Airworthiness.
    d. The Chief of the independent monitoring function of the design assurance system.
    e. New distribution of responsibilities affecting airworthiness.

[TEXT HERE]

3. Procedures

Change to the principles of procedures related to:

a. The design certification
b. The classification of changes and repairs as major or minor
c. The management of major changes and major repairs
d. The approval of the design of minor changes and minor repairs
e. The issue of information and instructions
f. Documentary changes to the Aircraft Flight Manual
g. Type airworthiness
h. The configuration control, when airworthiness is affected
i. The acceptance of design tasks undertaken by partners or subcontractors
j. Military Permit to Fly (MPTF)

[TEXT HERE]

4. Resources

a. Substantial change in the number and/or experience of staff.

[TEXT HERE]

5. Scope / Privileges (Terms of Approval)

Change of:

a. the scope of approval
b. the categories of products
c. the list of products
d. the privileges

1.3.2 MDOE Amendment Procedure

The MDOE is controlled by “Issue No.” which is placed on the footer on each page. Text parts of this MDOE affected by the last issue will be marked by a vertical bar on the outboard side of the text.

All file of all changes to this MDOE including the referenced documents are stored in the [Organisation name] electronic document storage, retrieval and archiving system, which is accessible for all [Organisation name] staff.

Approval of the new issue:

1. Significant change to Design Assurance System (DAS)
   The procedures/handbook describing and introducing the significant change will be approved by [function and/or name] after the significant change is approved by the MAA.
2. Non-significant change to DAS
   The new issue of the MDOE will be approved by signature of [function and/or name] on the front page of this MDOE.

1.4 Description of Design Organisation

This section should give brief general information about the organisation's structure, staff numbers, premises, and history. The scope of the organisation undertakings, at the addresses of the various premises, should be described. Where appropriate, relationships with other organisations forming part of the same group should be mentioned.

[TEXT HERE]

1.4.1 Company History

Brief general information concerning the history and development of the organisation and, if appropriate, relationships with other organisations which may form part of a group or consortium, should be included to provide background information for the MAA.

[TEXT HERE]

1.4.2 Design Organisation Facilities

21.A.245

This section should detail the Design Organisation location(s) and describe the facilities in detail for each facility included in the scope of the MDOA (in the design organisation's certificate of approval):

a. Design facilities (e.g.: Computer aided design and drawing system, filling and storage, list of software used, etc.)

b. Test facilities (description of what tests can be performed, what equipment is available, etc.)

[TEXT HERE]

1.4.3 Supplier/Subcontractors List

This section should list and describe the design suppliers and/or contracted services, including the tasks performed by them. How the company selects design supplier is described in chapter 12.1.

[TEXT HERE]

1.5 Scope of Work

21.A.243(a)

The information given in this section should define the DOs scope of approval.

Applicants should also provide in this section a brief description of the product(s) and appliances including applied technologies and methods.

The MAA uses S1000D Section 8.2.5 system numbers to identify appliances within systems. Organisations designing appliances should identify the component(s) it designs either at system or sub system level.

Organisations only designing software should identify it against the relevant system within Section 1.5.3.

[TEXT HERE]

1.5.1 Products

[TEXT HERE]

Class		**Type(s)**
Aeroplanes		
Helicopters		
Remotely Piloted Air System (RPAS)		
Engines	Turbine	
	Piston	
Auxiliary Power Units		

1.5.2 Appliances

[TEXT HERE]

Group	System[1]	Applicable
Air Conditioning/Pressurisation	21. Environmental Control	☐
Automatic Flight	22. Auto Flight	☐
Communications/Navigation	23. Communications	☐
	34. Navigation	☐
	43. Tactical Communication	☐
Doors, Hatches	52. Doors	☐
Electrical Power	24. Electrical Power	☐
	33. Lights	☐
	91. Wiring	☐
Equipment	25. Equipment and Furnishing	☐
	38. Water and Waste	☐
	45. Central Maintenance System	☐
	50. Cargo and Accessory Compartment	☐
Engine, Auxiliary Power Unit	49. Airborne Auxiliary Power	☐
	71. Power Plant	☐
	72. Engine	☐
	72. Engine Turbine/Turboprop	☐
	72. Engine Reciprocating	☐
	73. Engine Fuel and Control	☐
	74. Ignition	☐
	75. Air	☐
	76. Engine Controls	☐
	77. Engine Indicating	☐
	78. Exhaust	☐
	79. Oil	☐
	80. Starting	☐
	81. Turbines	☐
	82. Water Injection	☐
	83. Accessory Gearboxes	☐
	86. Lift System	☐

[1] Refer to S1000D Section 8.2.5

Group	System[1]	Applicable
Flight Controls	27. Flight Controls	☐
Fuel, Airframe	28. Fuel	☐
	48. In-Flight Refuelling	☐
Helicopter, Rotors	62. Main Rotors	☐
	63. Tail Rotors	☐
	66. Folding Blades	☐
	67. Rotors, Flight Control	☐
Helicopter, Transmissions	63. Main Rotor drive	☐
	65. Tail rotor drive	☐
Hydraulic	29. Hydraulic Power	☐
Instruments	31. Indicating/Recording Systems	☐
	46. Systems Integration and Display	☐
Landing Gear/Recovery	32. Landing Gear	☐
	90. Recovery	☐
Oxygen/Nitrogen	35. Oxygen	☐
	47. Liquid Nitrogen	☐
Propellers	61. Propeller/Rotor	☐
Pneumatic	36. Pneumatic	☐
	37. Vacuum	☐
Protection, ice/rain/fire	26. Fire Protection	☐
	30. Ice and Rain Protection	☐
Windows & Canopies	56. Windows/Canopies	☐
Structural	53. Fuselage	☐
	54. Nacelles/Pylons	☐
	57. Wings	☐
Water Ballast	41. Water ballast	☐
Propulsion Augmentation	84. Propulsion Augmentation	☐
Attack Systems	39. Attack System	☐
	40. Operation Attack	☐
	42. Cross Technical Attack	☐
Radar/Surveillance	92. Radar	☐
	93. Surveillance	☐
Weapons Systems	94. Weapons System	☐

Group	System[1]	Applicable
Crew Escape	95. Crew Escape and Safety	☐
Missiles/Drones/Telemetry	96. Missiles/Drones/Telemetry	☐
Reconnaissance	97. Image Recording	☐
	98. Metrological and Atmospheric Research	☐
Electronic Warfare	99. Electronic Warfare	☐
Weapons		☐

1.5.3 Technologies

Structures - Metallic	☐	Mechanical Systems	☐
Structures – Non-Metallic	☐	Avionics Systems	☐
Engine - Piston	☐	Weapons Systems	☐
Engine - Turbine	☐	*Software	☐

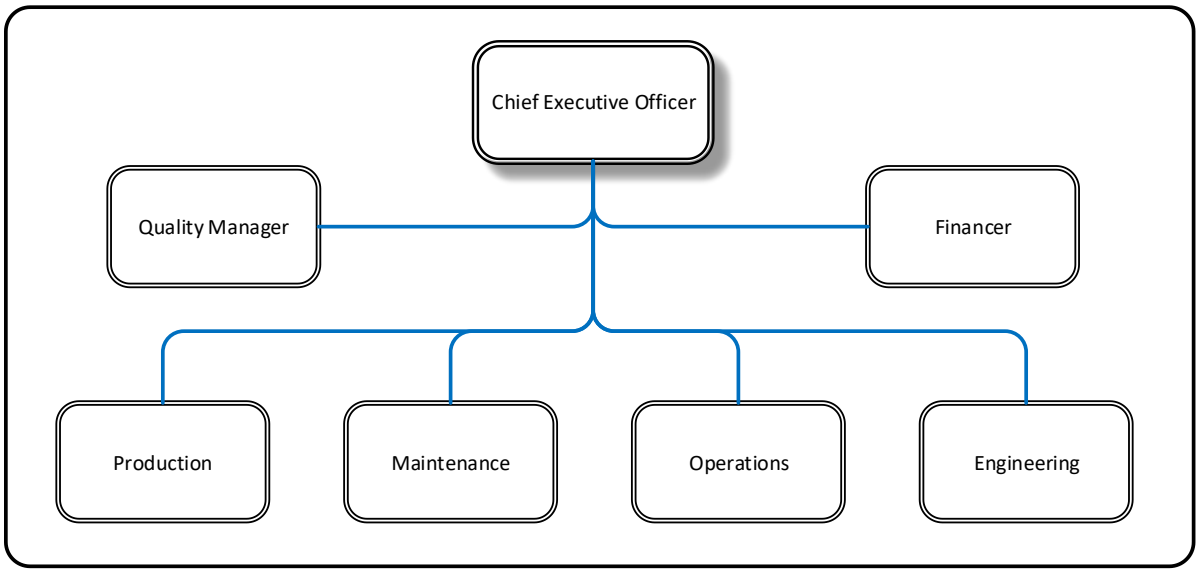
*Software should be identified at the highest Design Assurance Level (DAL)

1.6 Organisational Structure

21.A.245

This section should contain a diagram showing how the Design Organisation fits into the larger organisational structure. It should also show the chain of responsibility from the DO Chief Executive to nominated design staff.

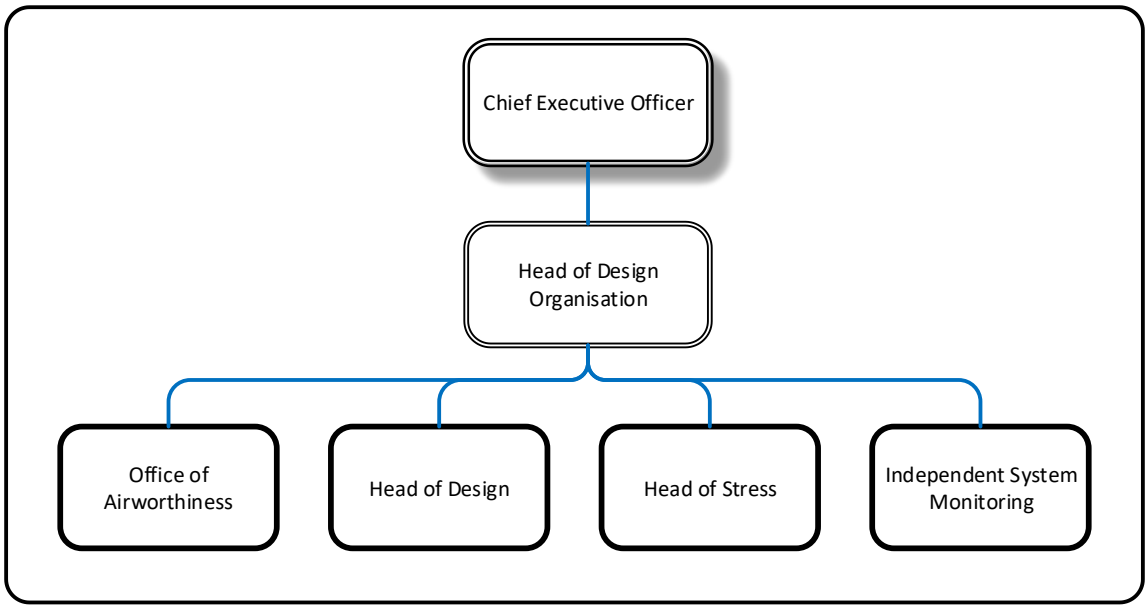
The following chart provides an example of the overall structure of an Organisation and shows where the Design Organisation fits within the organisational structure.



The chart below shows further details on the Design Organisation structure. This chart may be combined with the one above or subdivided as necessary depending on the size and the complexity of the organisation.

The structure depicted below the Head of the Design Organisation in the chart is an example only.

It is up to the organisation to determine the most appropriate structure; including nomination of responsible managers to cover all the design activities the applicant is seeking approval to provide.



[TEXT HERE]

1.7 Human Resources

21.A.245

This section should include a description of the human resources available and give details about their responsibilities and qualification criteria. From the description in this section it should become apparent that sufficient Design and Compliance Verification Engineers are available (DE/CVE-ratio).

Also, the company's training policy should be defined (i.e. general framework for training plans, defining e.g. the fields of training such as "regulations", "technical training", "procedures training" etc. and its recurrences) for each affected group of staff.

[TEXT HERE]

1.7.1 Design Engineer

This section should describe the responsibilities and tasks of Design Engineer(s), the required minimum qualification(s) and a procedure for the assessment and acceptance of Design Engineer(s).

EXAMPLE

DEs are assigned the following tasks:

a. preparing documents like design definition documents, compliance demonstration documents, programmes and operating instructions; and filing test data, etc.;

b. confirms by signing of the document that the document was prepared with best engineering practice, utmost care and to best knowledge of all facts affecting its contents and is completed.

1.7.1.1 Qualification and Training of Design Engineers

EXAMPLE

Each of the DE listed by name in Section 1.9 shall have undergone adequate training to qualify for the jobs assigned and possess adequate professional experience. The DE shall be familiar with the procedures for described in this manual including project related documents affecting DE's tasks.

The minimum requirements to be eligible for a DE are:

a. Basic knowledge of the relevant Certification Specification requirements;

b. [TEXT HERE]

c. [TEXT HERE]

d. [TEXT HERE]

Prior to the nomination as DE, the employee shall be required to participate in a training course on airworthiness aspects and on the type certification process.

1.7.1.2 Nomination of Design Engineers

EXAMPLE

The DEs are nominated by the Head of Design. The Head of Design assures that the qualification level and experience of the persons who serve the function as DE satisfy the requirements of the respective tasks involved. The DE will be listed in this MDOE Section 1.9.

1.7.2 Compliance Verification Engineer

This section should describe the responsibilities and tasks of Certification Verification Engineer(s), the required minimum qualification(s) for CVE applicants and a procedure for the assessment and acceptance of CVE. It shall also indicate directly or by cross-reference to a dedicated document how each CVE accepted his/her responsibilities (e.g. signing off a dedicated nomination sheet etc.).

EXAMPLE

The persons nominated as a Compliance Verification Engineer (CVE) are listed in Section 1.9.

CVEs are assigned the following tasks:

a. Independent checking of compliance demonstration documents (e.g. design definition documents, operating instructions, analysis, test programmes test data and manuals required to be approved by the MAA or under MDOA privileges (e.g. AFM)) for technical accuracy and compliance with applicable airworthiness requirements;

b. Confirming the independent check with his signature.

With regard to upper mentioned tasks CVEs are solely responsible towards the HDO.

1.7.2.1 Qualification and Training of Compliance Verification Engineer

EXAMPLE

Each of the CVEs listed by name in Section 1.9 shall have undergone adequate training to qualify for the jobs assigned and possess adequate professional experience. He shall be familiar with the procedures for verification described in this exposition including project related documents.

The minimum requirements to be eligible for a CVE are:

a. Thorough knowledge of the relevant Certification Specification requirements;

b. Thorough knowledge of the company and its design organisation;

c. Thorough knowledge of the Sections including referenced procedures affecting the design, approval and continued airworthiness process;

d. Basic knowledge of UAEMAR 21.

Prior to the nomination as CVE, the employee shall be required to participate in a training course on airworthiness aspects and on the type certification process.

1.7.2.2 Nomination of Compliance Verification Engineer

EXAMPLE

The CVEs are nominated by the HDO. The HDO assures that the qualification level and experience of the persons who serve the function of CVE satisfy the requirements of the respective tasks involved. The HDO will be assisted by recognised experts to evaluate the competences in the related technical field. Every CVE receives a nomination which states his scope of authorisation. The nomination is signed by the CVE and the HDO. A Design Organisation Form with CVE nomination sheets is used. The CVE will be listed in this section.

1.8 Management Staff

21.A.243(d)

Management staff comprises following functions:

a. Chief Executive

b. Head of DO (HDO)

c. Chief of the Office of Airworthiness (COA)

d. Chief of the Independent Monitoring function of the design assurance system (CISM)

The credentials of the managers (HDO, COA, and CISM) should be submitted to the MAA on a UAEMAR Form 4 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.

Nevertheless, it's up to the company to choose and accept its management staff. To this end, this section should describe each manager's tasks and responsibilities and define the qualification criteria the organisation has set up to make sure management staff is competent to fulfil their respective obligations.

NOTES:

1. In general, it is possible that two or more functions are performed by the same person. As mentioned in UAEMAR 21 GM 1 to 21.A.239(a) Section 3.1.2 (c) the Chief Executive and the Head of DO function may be performed by the same person.
2. The Office of Airworthiness responsibilities are defined in UAEMAR GM 1 to 21.A.239(a) Section 3.1.4.

1.8.1 Chief Executive

The Chief Executive Officer has the following accountabilities, tasks and responsibilities:

a. Providing the necessary resources for the proper functioning of the company's Design Organisation.

1.8.2 Head of Design Organisation (HDO)

The HDO has the following tasks and responsibilities:

a. Signing a declaration of compliance (see UAEMAR 21.A.20(d) and UAEMAR 21.A.97(a)(3)) with the applicable airworthiness and environmental protection (where applicable) requirements after verification of satisfactory completion of the Type Investigation;

b. Unlimited responsibility and liability for ensuring the satisfactory accomplishment of the design work carried out by or on behalf of company's DO;

c. Determining the necessary resources for the proper functioning of the company's DO;

d. Ensuring that the company's DO properly discharges its responsibilities in accordance with the appropriate regulations of UAEMAR 21 and the organisation's Terms of Approval;

e. Ensuring that the procedures as specified in the MDOE and referenced procedures are maintained and followed;

f. Overall technical responsibility for the company's Design Engineering deliverables;

g. Continued airworthiness support and safety of the product designed, changed or repaired by the company's DO;

h. See also table of Section 1.9 (Authorised signatories).

i. As mentioned in UAEMAR 21 GM 1 to 21.A.239(a) Section 3.1.2 (c) the Chief Executive and the HDO function may be performed by the same person.

Qualification and Training

EXAMPLE

a. General knowledge of the relevant UAEMAR 21 requirements and company procedures is expected;

b. Management skills.

c. [TEXT]

1.8.3 Chief of the Office of Airworthiness (COA)

The list below is based on the UAEMAR 21 GM No 1 to 21.A.239 (a), section 3.1.4. Depending on the scope of the design organisation this list should be adapted accordingly.

The COA has the following tasks and responsibilities:

a. Liaison between the design organisation and the Authority with respect to all aspects of the certification programme.

b. Ensuring that a MDOE is prepared and updated as required in UAEMAR 21.A.243.

c. Cooperation with the Authority in developing procedures to be used for the type certification process.

d. Issuing of guidelines for documenting compliance.

e. Cooperation in issuing guidelines to ensure compliance with the regulations for the preparation of the manuals, Service Bulletins, drawings, specifications, and standards.

f. Ensuring distribution of applicable airworthiness and environmental protection (where applicable) requirements and other specifications.

g. Co-operating with the Authority in proposing the type certification basis

h. Interpretation of airworthiness and environmental protection (where applicable) requirements and requesting decisions of the Authority in case of doubt.

i. Advising of all departments of the design organisation in all questions regarding airworthiness, environmental protection (where applicable) approvals and certification.

j. Preparation of the certification programme and coordination of all tasks related to Type Investigation in concurrence with the Authority.

k. Regular reporting to the Authority about Type Investigation progress and announcement of scheduled tests in due time.

l. Ensuring cooperation in preparing inspection and test programmes needed for demonstration of compliance.

m. Establishing the compliance checklist and updating for changes.

n. Checking that all compliance documents are prepared as necessary to demonstrate compliance with all airworthiness and environmental protection (where applicable) requirements, as well as for completeness, and signing for release of the documents.

o. Checking the required type design definition documents described in UAEMAR 21.A.31 and ensuring that they are provided to the Authority for approval when required.

p. Preparation, if necessary, of a draft for a type certificate data sheet and/or type certificate data sheet modification.

q. Providing verification to the head of the design organisation that all activities required for Type Investigation have been properly completed.

r. Approving the classification of changes in accordance with UAEMAR 21.A.91 and granting the approval for minor changes in accordance with UAEMAR 21.A.95(b).

s. Monitoring of significant events on other aeronautical products as far as relevant to determine their effect on airworthiness of products being designed by the design organisation.

t. Ensuring cooperation in preparing Service Bulletins and the Structural Repair Manual, and subsequent revisions, with special attention being given to the manner in which the contents affect airworthiness and environmental protection (where applicable) and granting the approval on behalf of the Authority.

u. Ensuring the initiation of activities as a response to a failure (accident/incident/in-service occurrence) evaluation and complaints from the operation and providing of information to the Authority in case of airworthiness impairment (continuing airworthiness).

v. Advising the Authority with regard to the issue of airworthiness directives in general based on Service Bulletins.

w. Ensuring that the manuals approved by the Authority, including any subsequent revisions (the Aircraft Flight Manual, MMEL, the Airworthiness Limitations section of the Instructions for Continuing Airworthiness and the CMR document, where applicable) are checked to determine that they meet the respective requirements, and that they are provided to the MAA for approval.

Qualification and Training

The COA has sufficient knowledge and authority to enable him to respond to the MAA and to implement necessary improvements as:

a. Thorough knowledge of the relevant UAEMAR 21 requirements and company procedures is expected;

b. Thorough knowledge of this exposition especially the procedures relevant to the classification, compliance demonstration, certification and continued airworthiness process;

c. Thorough knowledge of the relevant certification specification;

d. Management skills.

e. [TEXT]

1.8.4 Chief of the Independent System Monitoring (CISM)

The CISM has the following tasks and responsibilities:

a. Plan all activities related to the Independent System Monitoring (ISM);

b. Verify efficiency of the design organisation;

c. Survey any corrective actions;

d. Perform audits (the CISM may not be involved directly in any activities he is auditing).

e. [TEXT]

Qualification and Training

a. Knowledge of related UAEMAR 21 requirements;

b. Knowledge of this exposition including the related procedures;

c. Thorough knowledge of the “Independent Monitoring Procedure”;

d. Experience in auditing (for the case he is auditing himself).

e. [TEXT]

1.9 Authorised Signatories

This Section should contain a list of authorised signatories or makes reference to a document that contains the list.

The authorised signatory list should identify all signatories with the documents the respective personnel are authorised to sign, giving their names, positions in the company. This list should include signatories for:

a. Classification of changes to type design and/or repairs

b. Verify compliance [UAEMAR 21.A.239(b)];

c. approve minor changes to type design and minor repairs [UAEMAR 21.A.263(c)(2)];

d. Issue information or instructions [UAEMAR 21.A.263(c)(3)]

e. Changes and/or repairs (before submission to the MAA)

f. Service Bulletins, or other documentation used to issue information or instructions to owners of products

g. Unintentional deviations from the approved data occurring in production (concessions or non-conformances).

The table shown below is an example only. It can be organised in another way.

EXAMPLE:

Authorisations				
Name	Signature	Function	Prepare	Check/Approve
[Person 1]		HDO		6, 7, 8, 9, 10, 11
[Person 1]		COA	1, 2, 3, 5, 6, 7	1, 2
[Person 2]		CISM	11	
[Person 1]		Design Engineer	1, 2, 3, 5, 9, 10	
[Person 2]				
[Person 3]				
[Person 1]		CVE	1, 2	3, 4, 5
[Person 2]				
[Person 3]				

List of documents / templates:

1	Application and Classification	5	Compliance Document	9	Service Bulletins
2	Certification Programme	6	Certificate of Design	10	Concessions
3	Test Plan	7	Minor Change Approval	11	Audit Plan
4	Statement of Conformity	8	Repair Approval		

1.10 General Description of the Manpower Resources

This section should include a description of the manpower available, including sub-contracted services, and give details about their responsibilities and qualification criteria. From the description in this section it should become apparent that sufficient design personnel are available.

Also, the company's training policy should be defined (i.e. general framework for training plans, defining e.g. the fields of training such as "regulations", "technical training", "procedures training" etc. and its recurrences) for each affected group of staff.

EXAMPLE

Adequate resources of suitably qualified staff are provided for Design, see table below. Manpower levels are managed through an annual budget process. Department managers are responsible for planning resource requirements for the performing, supervising and inspecting of work and for managing short-term variations in requirement. Significant changes to manpower resources (>10%) will be notified to the MAA.

[TEXT HERE]

	No of Staff
Indirect Office Staff	123
Direct Design Staff	82
Total	**205**

PART 2 – INDEPENDENT SYSTEM MONITORING

21.A.239(a)(3)

The procedure for Independent System Monitoring should include:

a. Planning of safety performance measurement and compliance monitoring activities

b. Safety performance measurement and compliance monitoring activities

c. Determination of corrective actions and acceptable timeframes

d. Follow-up of findings

e. Coverage of design suppliers

f. Reporting lines

The ISM shall cover all company processes and all applicable UAEMAR 21 requirements in a suitable timeframe but at least within a maximum of three years. It usually consists of all or part of following activities:

a. Process audits

b. Product audits

c. etc.

[TEXT HERE]

2.1 Scope of ISM

EXAMPLE

The efficiency of the Design Assurance System is ensured by the Independent System Monitoring (ISM). The ISM consists of an independent auditing and reporting system to monitor the compliance and effectiveness of the Design Organisation.

2.2 Audit Plan

EXAMPLE

The basis for the internal audits are the relevant UAEMAR 21 requirements. The MDOE including the referenced procedures describe how [Organisation name] fulfils these requirements. All procedures of the DAS will be audited/monitored in a [n] year cycle. The CISM will issue a detailed audit/monitoring plan (see [Form number], Audit Plan) every year on the basis of the [n] year plan (see [n] year audit plan). These plans have to be approved by the HDO.

2.3 Performance of an Audit

EXAMPLE

Each audit is prepared by the auditor according to the audit plan. Following issues will be addressed:

a. Purpose of the audit

b. Scope of the audit

c. Time frame of the audit

d. Contact person of the audited party

e. List of documents to be available during the audit

The auditor will perform the audit with help of interviews and check list. He can decide to perform the audit together with an expert of the field to be audited. The auditor shall ensure that this expert was not directly involved in the audited subject.

The auditor will document the results in an audit report (see [Form number], Audit Report) which will be issued to the HDO.

Deviations will be classified as follows:

Level 1: Any non-compliance which could lead to uncontrolled non-compliances with applicable UAEMAR 21 requirements and which could affect the safety of the aircraft.

Level 2: Any non-compliance which is not classified as level 1.

Level 3: Any item where it has been identified, by objective evidence, to contain potential problems that could lead to a level 2 or 1 finding.

Corrective actions have to be implemented within:

Level 1: within 21 days

Level 2: latest within 3 month

Level 3: to be defined by the relevant department where the weakness or possibility of improvement has been discovered.

2.4 Determination and Monitoring of Findings and Corrective Actions

EXAMPLE

In case of deviations and findings, the relevant department where the deviations or findings have been discovered is responsible for analysing the reason and suggesting a solution, determining time frames and implement the corrective actions. The time frame has to be accepted by the CISM. The CISM has to ensure that the time frame is within the frame listed in Section 2.3.

The CISM will add this information in the audit report. The CISM is also responsible to monitor all defined actions. For this he updates the Action and Finding List (see [Form number], Action and Finding List). In case any findings are still open after the scheduled date the CISM will inform the HDO.

It is responsibility of the HDO to define and enforce the actions to close the finding as soon as possible and inform the MAA immediately in case of finding classified as Level 1.

PART 3 – NEW TYPE CERTIFICATE

21.A.11, 21.A.20 (a)

This section should describe the procedure for a new design. The procedure shall define following aspects:

A concise description is required of the DO's technical procedures covering all aspects of work conducted under the DOA. This should show how matters affecting airworthiness are controlled. The organisation shall be such as to ensure that, in all matters affecting airworthiness, full and efficient co-ordination exists between the technical disciplines.

The procedure shall define following aspects:

a. Management of the project

b. Certification programme

c. Compliance Demonstration

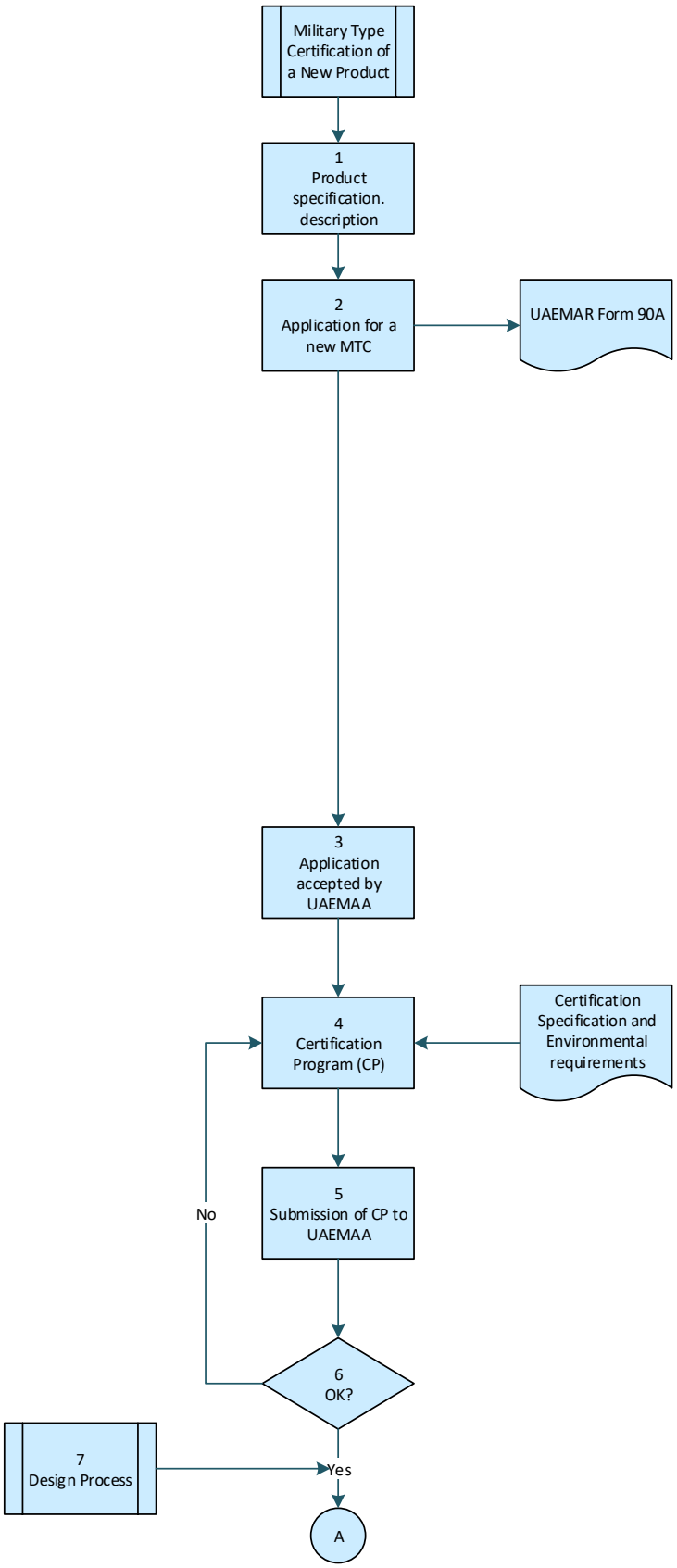
d. Tests

e. Compliance summary

f. Certificate of Design

g. Approval

EXAMPLE



1. *[Describe here who in the design organisation is responsible for specifying and describing the new product to be developed.]*

2. *[Describe here who in the design organisation is filling out the application form and sending it to the MAA. The application for an aircraft MTC shall be accompanied by a three-view drawing of that aircraft and preliminary basic data, including the proposed operating characteristics and limitations. An application for an engine or propeller MTC shall be accompanied by a general arrangement drawing, a description of the design features, the operating characteristics, and the proposed operating limitations, of the engine, or propeller. The HOD should check and sign the form]*
[TEXT HERE]

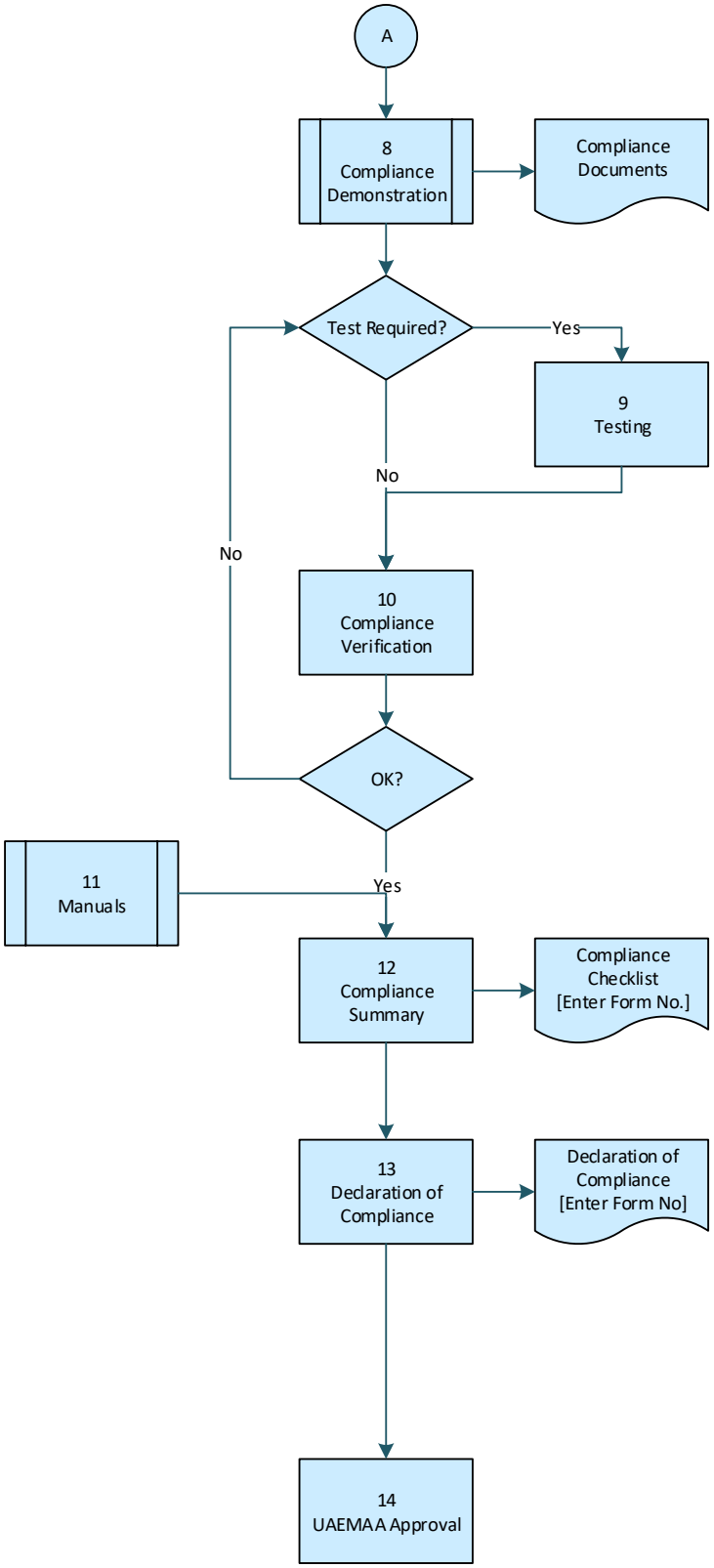
3. The MAA will allocate a Project No. and will inform the DO on the responsible PCM.

4. The COA together with the CVEs are preparing the CP. The COA is responsible for the preparation of the CP and will approve it [Form number].

5. The COA is responsible for the submission of the CP to the PCM at the MAA.

6. The PCM checks the CP and will accept it or will ask for revision. In addition, he will define the level of involvement by defining documents to be sent to the MAA and tests to be witnessed by the MAA

7. The design process can start at this point. See PART 6~~PART 6~~. The type design documents (specifications, drawings, bill of material, production and installation procedures, etc.) are prepared.



8. The design engineer prepares the compliance demonstration document according to the certification programme (analysis, compliance statements, reports, etc.). Refer to PART 7~~PART 7~~.

9. The design engineer conducts testing (if required) in accordance with the compliance demonstration document and produce test reports.

10. The independent checking with respect to completeness and technical content is performed by the appropriate CVE within their field and with respect to their competences.(see Section 1.9 and 7.3.8).

11. Manuals (see Section 11.1)

12. The Office of Airworthiness is summarising all compliance documents in the Compliance Summary. With his signature the COA declares that the type investigation is finished.
(see Section 3.4)

13. The HOD signs the Declaration of Compliance and Office of Airworthiness sends the Declaration of Compliance including the compliance summary and all compliance documents. (See Section 3.5)

Note: Defined Compliance documents and manuals can be sent to the PCM after these documents are approved by the [Organisation name].

14. The MAA will check the documents and will issue the Type Certificate in case all requirements are met.

3.1 Specification and Description of the Design

21.A.15

This section should describe who in the DO is responsible for specifying and describing the design to be developed and the kind of operations envisaged.

EXAMPLE

Describe here who is responsible to issue the application form (UAEMAR Form 90a or Form 91) and send it to the MAA:

a. The application for an aircraft TC shall be accompanied by a three-view drawing of that aircraft and preliminary basic data, including the proposed operating characteristics and limitations.

b. An application for and engine or propeller TC shall be accompanied by a general arrangement drawing, a description of the design features, the operating characteristics, and the proposed operating limitations, of the engine, or propeller.

The HOD should check and sign the form.

3.2 Type Certification Basis

21.A.17A(a)

This section should explain how the Certification Basis is developed; airworthiness codes are selected and include how the Certification Basis is agreed with the MAA.

EXAMPLE

The type certification basis of a new product consists of the applicable airworthiness code established by the MAA that is effective on the date of application unless otherwise specified by the MAA or compliance with certification specifications of later effective amendments is chosen by the [Organisation name] or required by 21.A.17(c) or (d).

3.3 Certification Programme

21.A.20(b), 16B

The programme should be agreed by the MAA prior to demonstration of compliance commencing.

EXAMPLE

In order to guarantee a coordinated and efficient course of design investigation the COA shall develop together with the relevant CVEs the Certification Programme.

The Certification Programme includes:

a. the Design Certification Basis;

b. the means of compliance including the activities required to show compliance;

Design Certification Basis consists of:

a. the applicable airworthiness code including amendment state established by the MAA effective on the date of application,

b. any special conditions in accordance with UAEMAR 21.A.16B, and

c. Any certification specification not complied with that is compensated for by factors that provide an equivalent level of safety.

The following Means of Compliance (MoC) are defined:

Type of Compliance	MoC	Associated Compliance Document
-	NA	Justification for not applicability of requirement.
	NR	No Requirement – Nomenclature only
Engineering Evaluation	(0) Compliance Statement	- reference to Type Design documents - election of methods, factors - definitions Type Design Documents, recorded Statements
	(1) Design Review	Description, drawings
	(2) Calculation, Analysis	Substantiation Reports
	(3) Safe Assessment	Safety Analysis (FMECA)
Tests	(4) Laboratory Test	Test Programmes Test Reports
	(5) Ground Test	
	(6) Flight Test	
	(7) Simulation	
Inspections	(8) Design Inspection/Audit	Inspection or Audit Reports
Equipment Qualification	(9) Equipment Qualification	Note: Equipment qualification is a process which may include all previous MoC.

After approval by COA and acceptance by the MAA, the certification programme is the binding working document to demonstrate compliance to the relevant certification specification. The issues which are covered are defined by the certification programme form.

In case during the development it turns out that the defined MoC are not sufficient the Certification Programme shall be corrected accordingly. The new issue has to be again checked and approved by the COA.

The Means of Compliance shall be defined for each airworthiness and environmental protection (if applicable) requirement.

[Form number] is used for the certification programme.

3.4 Compliance Summary (Compliance Check List)

21.A.20(a)

This section should describe in general the Compliance Check List (CCL). Most information should be given with the Compliance Check List form being used.

This chapter should describe:

a. The scope of the Compliance Check List (CCL),

b. How the CCL is managed,

c. Who is responsible for the CCL,

d. When and by whom is the CCL approved.

The CCL should cover following issues:

a. Reference to the certification program (CP),

b. The certification basis, including special conditions and equivalent safety findings including amendment,

c. Means of compliance,

d. List of documents which demonstrate compliance with the listed certification specification according to the agreed CP, including their status.

EXAMPLE

In order to guarantee at the end of the certification process that all the Certification Programme defined tasks were performed and all related certification documents and manuals are approved by the personnel defined in Section 1.9, a Compliance Check List is established.

The Compliance Check List is maintained by the Office of Airworthiness.

The Office of Airworthiness shall also check if the MoC being used correlate with the MoC defined in the Certification Programme.

When all related tasks are closed COA approves the Compliance Check List. The Compliance Check List is the basis for the Declaration of Compliance.

For the Compliance Check List the [Form number] is used.

3.5 Declaration of Compliance

21.A.33(d)

This Section describes the process when the declaration of compliance can be issued for a new TC, STC or Major Change and who is responsible for this task.

[TEXT HERE]

EXAMPLE:

After completion and acceptance of all certification specification and environmental protection requirements the Office of Airworthiness issues the Declaration of Compliance. The completion is tracked with the compliance summary (compliance check list) (see Section 3.4).

- For Minor Changes and Minor and Major (only own TC) Repairs the Declaration of Compliance is part of the Approval form (see [Form number]).
- For STC, TC and Major Changes the [Form number].

The signature of the Head of Design Organisation on the Declaration of Compliance confirms that:

- the type investigation is completed,
- the new/changed/repaired product complies with the applicable Certification Specification, Type Certification Basis and environmental protection requirements, and
- the applicable procedures and processes as specified in the MDOE have been followed.

For new TC, STC and Major Changes the Declaration of Compliance will be provided to the MAA (PCM).

PART 4 – CHANGES TO TYPE DESIGN

21.A.Subpart D

This section should describe the procedure for a minor or major design changes. The procedure shall define following aspects:

a. Management of the project,

b. Certification programme,

c. Compliance Demonstration,

d. Tests,

e. Compliance summary,

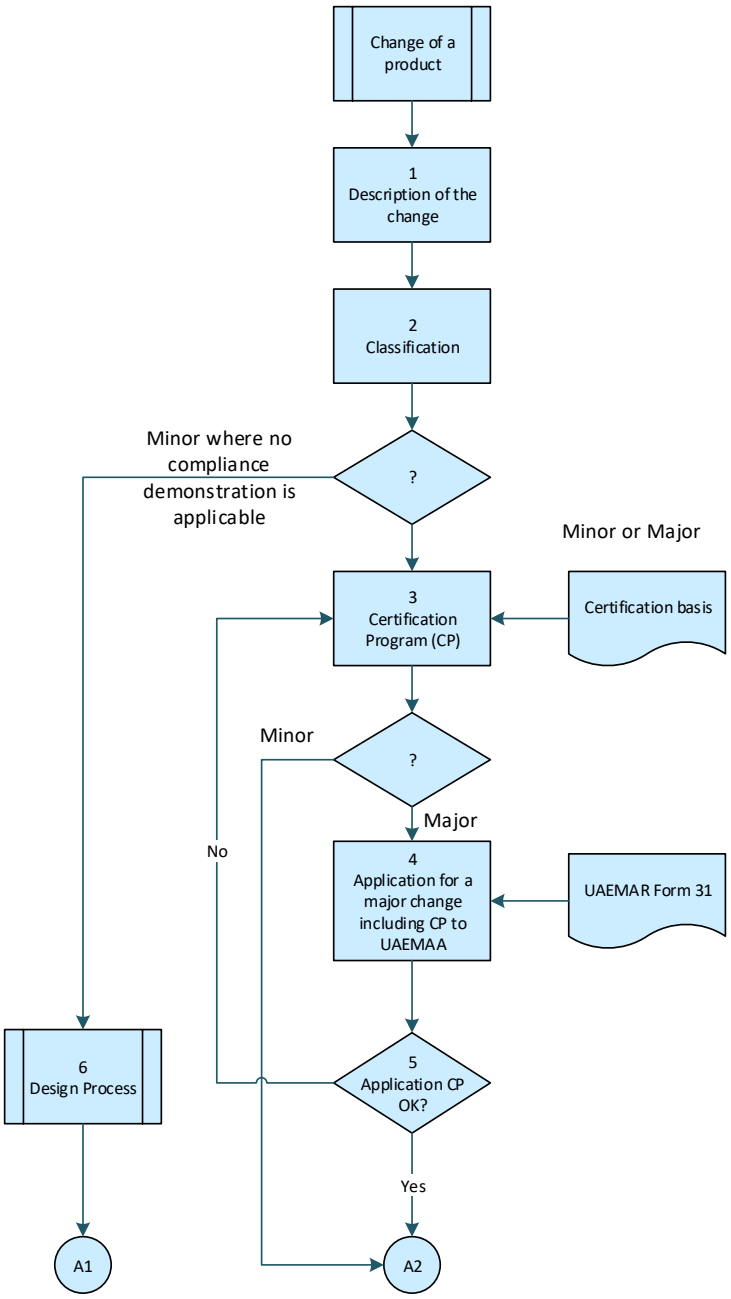
f. Certificate of Design,

g. Approval.

Where an Organisation is seeking privilege(s) in accordance with UAEMAR 21.A.91 Sections they should ensure that the content of this section meets the requirements of UAEMAR 21 GM to 21.A.91:

Unlike the civil system, privileges are not valid until the MAA have assessed the organisations competence, included the relevant privilege on the Organisations Terms of Approval.

EXAMPLE



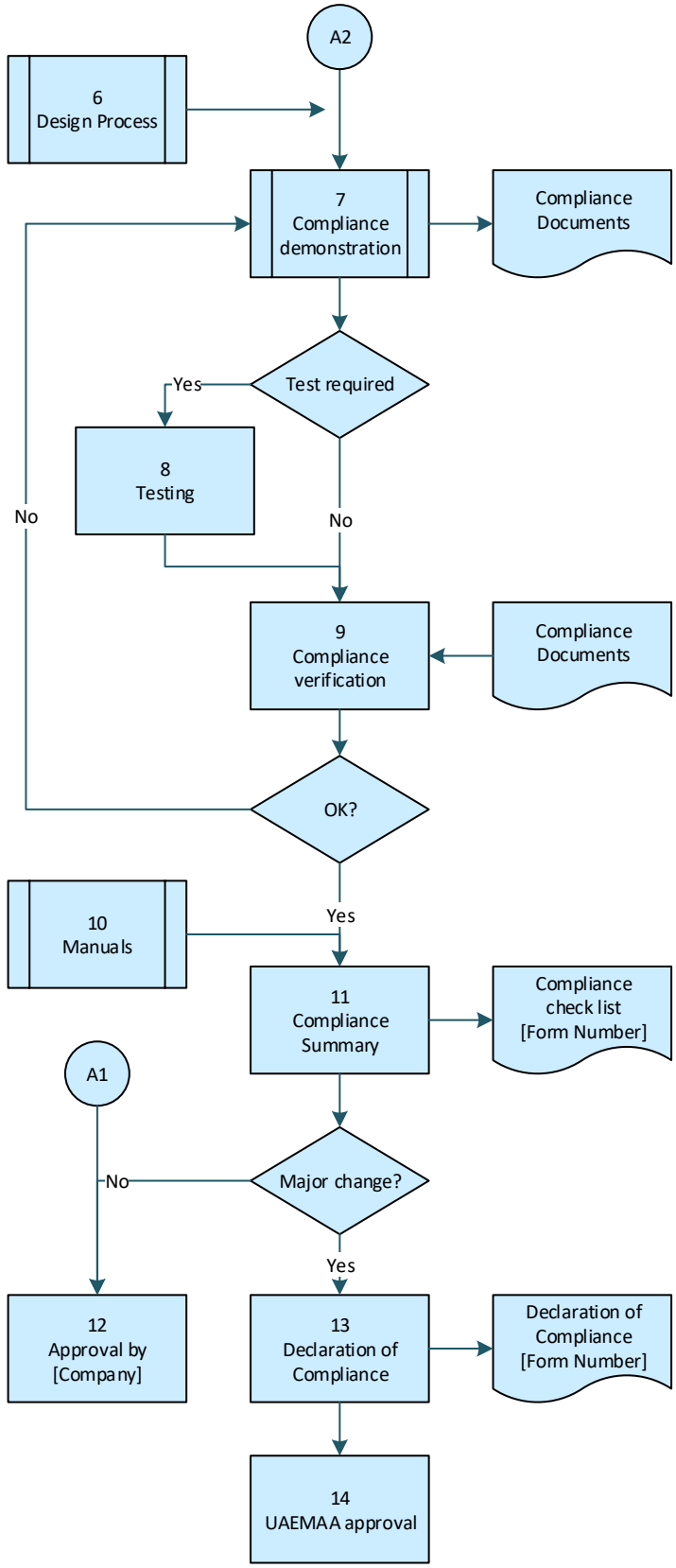
1. *[Describe here who in the design organisation is responsible for specifying and describing the change to be developed.]*

2. The COA together with the CVEs are preparing the classification including the substantiation for it. The COA is responsible for the preparation and will approve it [Form number]. For further details see Section 4.2.

3. The independent checking with respect to completeness and technical content is performed by the appropriate CVE within their field and with respect to their competences. The COA is responsible for the preparation of the CP and will approve it [Form number]. For further details see chapter 4.4.

4. *[Describe here who in the design organisation is filling out the application form and sending it to the MAA. The application for a major change shall be accompanied by an overview drawing of the change including preliminary basic data like proposed operating characteristics and limitations. The HOD or COA should check and sign the form].*

5. The MAA will allocate a Project No. and will inform the DO on the responsible PCM. The PCM checks the CP and will accept it or will ask for revision



6. The design process can start at this point. See Section PART 6~~PART 6~~. The type design documents (specifications, drawings, bill of material, production and installation procedures, etc.) are prepared.

7. The design engineer prepares the compliance demonstration document according to the certification programme (analysis, compliance statements, reports, etc.). Refer to PART 7~~PART 7~~.

8. For tests (ground test and flight tests) see Section 7.3.

9. The independent checking with respect to completeness and technical content is performed by the appropriate CVE within their field and with respect to their competences. (see Section 1.9 and 7.3.8).

10. Manuals (see Section 11.1)

11. The Office of Airworthiness is summarising all compliance documents in the Compliance Summary. With his signature the COA declares that the type investigation is finished (see Section 4.5).

12. The HOD approves the Minor Change by using [Form number]. See Section 4.7.1

13. The HOD signs the Declaration of Compliance and Office of Airworthiness sends the Declaration of Compliance including the compliance summary and all compliance documents defined by the PCM. See Section 4.6 and [Form number].

    Note: Compliance documents and manuals can be sent to the PCM after these documents are approved by the [Organisation name].

14. The MAA will check the documents and will issue the approval of the change in cases where all requirements are met.

4.1 Specification and Description of the Change

21.A.Subpart D

Describe here who in the DO is responsible for specifying and describing the change of the product to be developed.

[TEXT HERE]

4.2 Classification of Design Changes

21.A.91

The procedure should mention directly or by cross reference who is authorised to create, append, modify and approve internally the classification.

The procedure should describe the classification criteria i.a.w. UAEMAR 21.A.91.

Changes must be classified on a UAEMAR Form 31 as:

a. Major,

b. Minor where additional work is necessary to demonstrate compliance with the airworthiness codes and environmental protection requirements (if applicable),

c. Minor requiring no further demonstration of compliance.

This section should describe how changes are communicated to the MAA.

EXAMPLE:
Classification of Changes to a type design into Major or Minor is to determine the type investigation procedure and approval route to be followed.

The classification is performed by the Office of Airworthiness together with the involved CVEs and documented on the form [Form number].

The Office of Airworthiness has to be aware of the interaction between disciplines and consequences this will have when assessing the effects of a change (i.e., operations and structures, systems and structures, systems and systems, etc.).

The classification is approved by Office of Airworthiness.

In any case of doubt the Office of Airworthiness asks the MAA for further clarification.

For classification of changes in the following Sections the wording “appreciable” is used. Following provides guidance on the word “appreciable” as applied to the areas identified at airplane level.

A. Weight – Appreciable changes are:

(a) Changes increasing the certified maximum or decreasing the certified minimum weight limits:

i. Max Taxi Weight

ii. Max Take-off Weight

iii. Max Zero Fuel Weight

iv. Max Landing Weight

v. Minimum Flying Weight

(b) Changes in distribution of weight and the associated moment of inertia that would affect the spin characteristics, dynamic stability or flutter characteristics of the airplane.

B. Balance – Appreciable changes are:

(a) Changes in the certified center of gravity limits

i. Decreasing the forward limit (i.e. move it more forward of the certificated forward limit)

ii. Increasing the aft limit (i.e. move it further aft of the certificated aft limit)

C. Structural Strength – Appreciable changes are:

(a) Changes to primary structure (structure that carries flight, ground, or pressure loads as defined in AC 25.571-1, Damage Tolerance and Fatigue Evaluation of Structure), that is not obviously to the conservative side

(b) Changes in loads / load paths

i. Changes in material

ii. Changes to method of construction

iii. Changes to stiffness

(c) Increase of structural design speeds:

i. VA

ii. VFE

iii. VNE

iv. VD

(d) Internal cabin changes:

i. Changes that increase floor loading limits

ii. Changes to increase cargo compartment loading limits

iii. Changes to cabin configuration resulting in relocation of major items (galleys, lavatories, etc.)

(e) Other factors:

i. Change of fatigue mission profile

ii. New required structural inspections

iii. Increase of control surface deflections

iv. Changes that affect the flutter characteristics

D. Reliability – Appreciable changes are:

(a) Changes that negatively (e.g. is it in curriculum) impact the airplane level reliability with the propensity for pilot distraction or preoccupation to the extent that a reduction in safety margins or rise in the level of preoccupation of the pilot's attention (pilot workload) is likely to happen.

E. Operational Characteristics – Appreciable changes are:

(a) Airplane, engine, and propeller changes that affect the performance data presented in the POH (including the approval of different take-off and landing surface conditions)

(b) Engine cooling changes

(c) Change in types of acceptable fuel

(d) Engine and / or propeller changes

(e) Changes to emergency procedures in the POH

(f) Changes to operating limits in the POH, including changes to the ambient envelope (altitudes and temperatures)

(g) Changes that affect the flight characteristics of the airplane in a manner that is perceptible to the pilot (e.g. change in control surface deflection and/or gearing; thrust/power changes; external configuration changes)

(h) System changes that increase pilot workload

(i) Changes in the certified maximum seating capacity

(j) Changes to unusable fuel supply

F. Environmental protection such as noise, fuel venting or exhaust emission:

(a) Changes that increase the noise level

(b) Changes that reduce noise level, when the reduction shall be identified on the POH

(c) Changes in the emissions level

G. Other characteristics affecting the airworthiness of the product: Appreciable changes are:

(a) Changes as a result of a safety issue

(b) Changes to the Airworthiness Limitations Manual

(c) Interior changes that affect passenger safety (for example new items of mass in the interior, installation of air bag seat belts, changes that affect occupant injury characteristics (e.g. Head Injury Criteria (HIC)) compliance, new seats, etc.)

(d) Changes to systems or equipment that have an effect on safety or are perceptible to the pilot.

NOTE:
When the strict application criteria results in a Major classification, the Office of Airworthiness may request re-classification, if justified, and the MAA could take the responsibility in re-classifying the change. For example if a simple design change planned to be mandated by an airworthiness directive may be re-classified Minor due to the involvement of the MAA in the continued airworthiness process. Reasons for a classification decision shall be recorded by the Office of Airworthiness by using the [Form number].

4.2.1 Minor Changes

21.A.95

EXAMPLE

Changes will be classified as Minor if they have no appreciable effect on:

a. mass
b. balance
c. structural strength
d. reliability
e. operational characteristics
f. noise fuel venting
g. exhaust emission
h. declared life
i. health (adverse effects on cabin bleed quality)
j. other characteristics affecting the airworthiness of the product, part or appliance.

For the case that with the minor change no Certification Specification and no environmental protection requirement is affected, the Office of Airworthiness will state this in the Classification form [Form number] accordingly. A justification of this statement is necessary and is also placed in the Classification form [Form number]. This justification is checked and signed by the applicable CVE.

4.2.1.1 Minor Change Requiring No Further Demonstration of Compliance

EXAMPLE:

These are minor changes where no certification specification including special conditions and environmental protection requirements are applicable. This is documented on form [Form number] with a substantiation for this decision and approved by Office of Airworthiness.

4.2.2 Major Changes

21.A.97

EXAMPLE:

A Change with an appreciable effect on characteristics affecting the airworthiness of the product shall be classified as MAJOR, when one or more of the following conditions are met:

a. Where the change requires an adjustment of the type-certification basis (such as special condition, equivalent safety finding, elect to comply, earlier certification specification (reversion), later certification specification).

b. Where a new interpretation of the certification specifications used for the type type-certification basis, that has not been published as AMC material or otherwise agreed with the MAA is proposed.

c. Where the demonstration of compliance uses methods that have not been previously accepted as appropriate for the nature of the change to the product or for similar changes to other products designed by the applicant.

d. Where the extent of new substantiation data necessary to comply with the applicable certification specifications and the degree to which the original substantiation data has to be re-assessed and re-evaluated is considerable.

e. The change alters the Airworthiness Limitations or the Operating Limitations.

f. The change is made mandatory by an airworthiness directive or the change is the terminating action of an airworthiness directive (ref. UAEMAR 21.A.3B).

g. The design change previously classified minor and approved prior to the airworthiness directive issuance decision needs no re-classification. However, the MAA retains the right to review the change and re-classify/re-approve if found necessary

h. Where the change introduces or affects functions where the failure effect is classified catastrophic or hazardous.

Examples of Major Changes:

Appendix A to GM 21.A.91 gives some examples of Major Changes. It is not intended to present a comprehensive list of all major changes. The DO should produce a more comprehensive list based on the Appendix A to GM 21.A.91 Annex A examples particular to its design activities.

EXAMPLE:

A. Structure:

(a) Changes such as cargo door cut-out, fuselage plugs, change of dihedral, addition of floats;

(b) Changes to materials, processes or methods of manufacture of primary structural elements, such as spars, frames control surfaces, landing gear and critical parts;

(c) changes that adversely affect fatigue or damage tolerance or life limit characteristics;

(d) changes that adversely affect aero elastic characteristics;

B. Flight:

(a) Changes which adversely affect the approved performance, such as high altitude operation, brake changes that affect braking performance.

(b) Changes which adversely affect the flight envelope.

(c) Changes which adversely affect the handling qualities of the product including changes to the flight controls function.

C. Systems:

For systems the classification process is based on the functional aspects of the change and its potential effects on safety.

(a) Aspects of the compliance demonstration use means that have not been previously accepted for the nature of the change to the system.

(b) The change affects the pilot/system interface (displays, controls, approved procedures).

(c) The change introduces complete new types of functions/systems.

D. Environment:

(a) A change that introduces an increase in noise or emissions.

E. Power Plant Installation:

Changes which include:

(a) Control system changes which affect the engine/propeller/airframe interface;

(b) New instrumentation displaying operating limits;

(c) Modifications to the fuel system and tanks (number, size and configuration);

(d) Change of engine/propeller type;

(e) Appreciable effect on fuel system, cooling system, fuel venting, oil system, induction system, …

(f) Appreciable effect on environmental protection characteristic such as for example noise emission.

4.3 Type Certification Basis for a Change to Type Design

21.A.17A, 19, 101

Refer section 3.2.

UAEMAR 21 GM 21.A.101 provides guidance for establishing the design certification basis for changed products in accordance with UAEMAR 21.A.101.

UAEMAR 21.A.19 defines the requirements to identify if it will be necessary for the organisation to apply for a new type certificate.

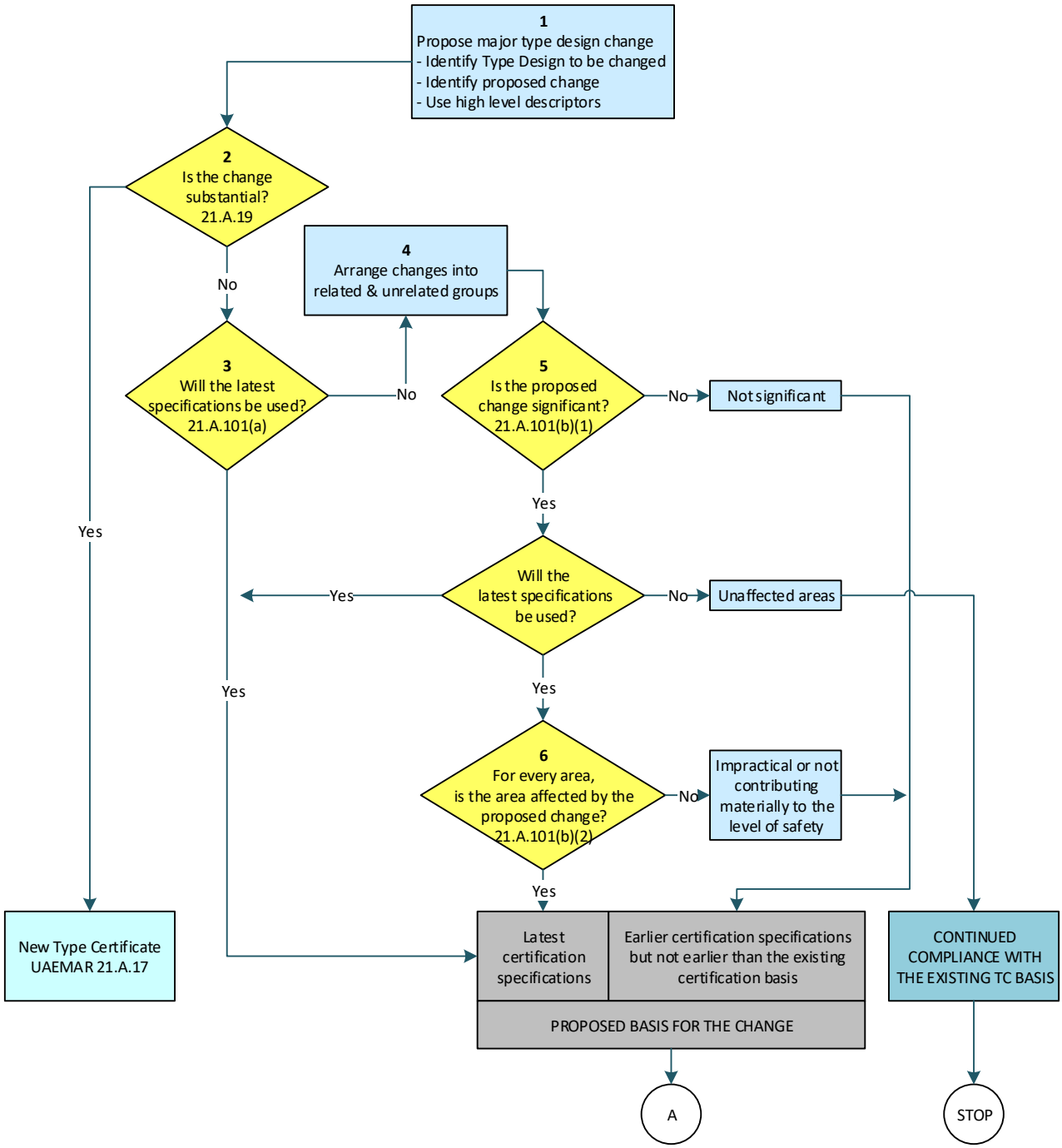
The procedure here shall describe how the MDOA, and who, defines the type certification basis.

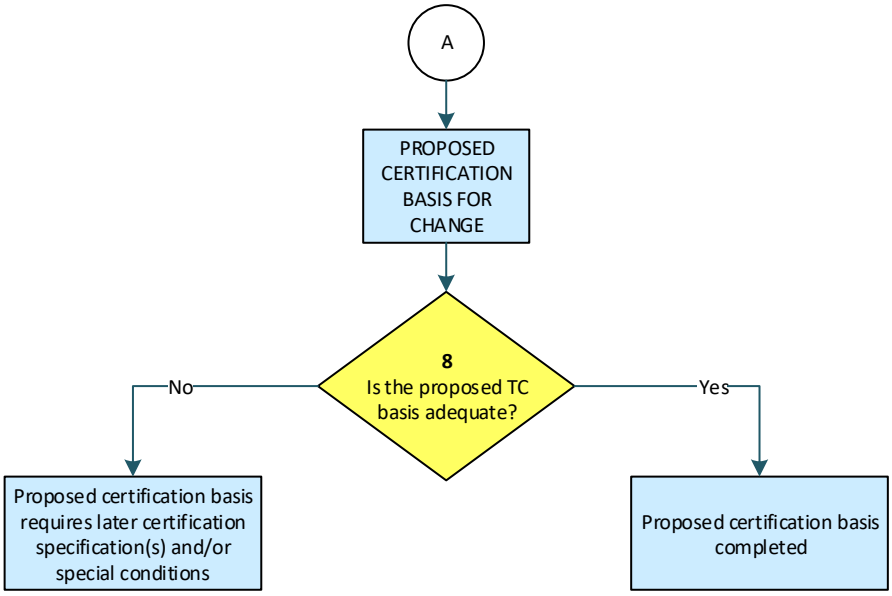
EXAMPLE:

The Chief of Office of Airworthiness is responsible to define the Type Certification Basis according to the procedure below (see also GM to UAEMAR 21.A.101). The Type Certification Basis is recorded for each major change and STC in the Certification Programme. For minor changes the type certification basis listed in the type certification data sheet is used or the newest valid

certification specification. The Chief of Office of Airworthiness will decide which certification basis will be used depending on practicability, safety and quality benefits.

The flow defines the certification basis of a major change see flow chart below.





For further explanations of each step see GM to UAEMAR 21.A.101.

4.4 Certification Programme

21.A.20(b)

Refer to section 3.3

4.5 Compliance Summary (Compliance Check List)

21.A.20(a)

Refer to section 3.3, 0

4.6 Declaration of Compliance (Certificate of Design)

21.A.20(d)

Refer to section 3.5

4.7 Approval of Certificate of Design Changes

21.A.20(e)

This Section describes the process how a Minor or a Major Design Change is approved by the DO.

Minor changes can be approved by either the MAA or the DO under privilege. The basis for the approval of a minor change should be the Compliance Check List.

Major changes are approved by the MAA. The basis for a major change is the declaration of compliance.

4.7.1 Approval of Minor Changes

EXAMPLE:

The approval of a Minor Change is pronounced on the basis of a completed type investigation. Therefor the Compliance Check List is used (see also Section 4.5).

The approval form [Form number] references the Compliance Check List [Form number]. In case the Compliance Check List is approved by Office of Airworthiness the Head of Design Organisation approves the Minor Change by using the form [Form number].

4.7.2 Approval of Major Changes

EXAMPLE:

On the basis of the completed Compliance Check List (see also Section 4.5) the Head of Design Organisation states the Declaration of Compliance (Section 4.6). For this the form [Form number] is used. The Office of Airworthiness sends this document to the assigned PCM. In case all type investigation documents are completed and correct the MAA will issue the approval for the Major Design Change.

PART 5 – REPAIRS

21.A.Subpart M

This Section describes the procedure for Minor or Major design repairs. The procedure should define following aspects:

a. Management of the project,

b. Certification Programme,

c. Compliance Demonstration,

d. Tests,

e. Compliance summary,

f. Certificate of Design,

g. Approval.

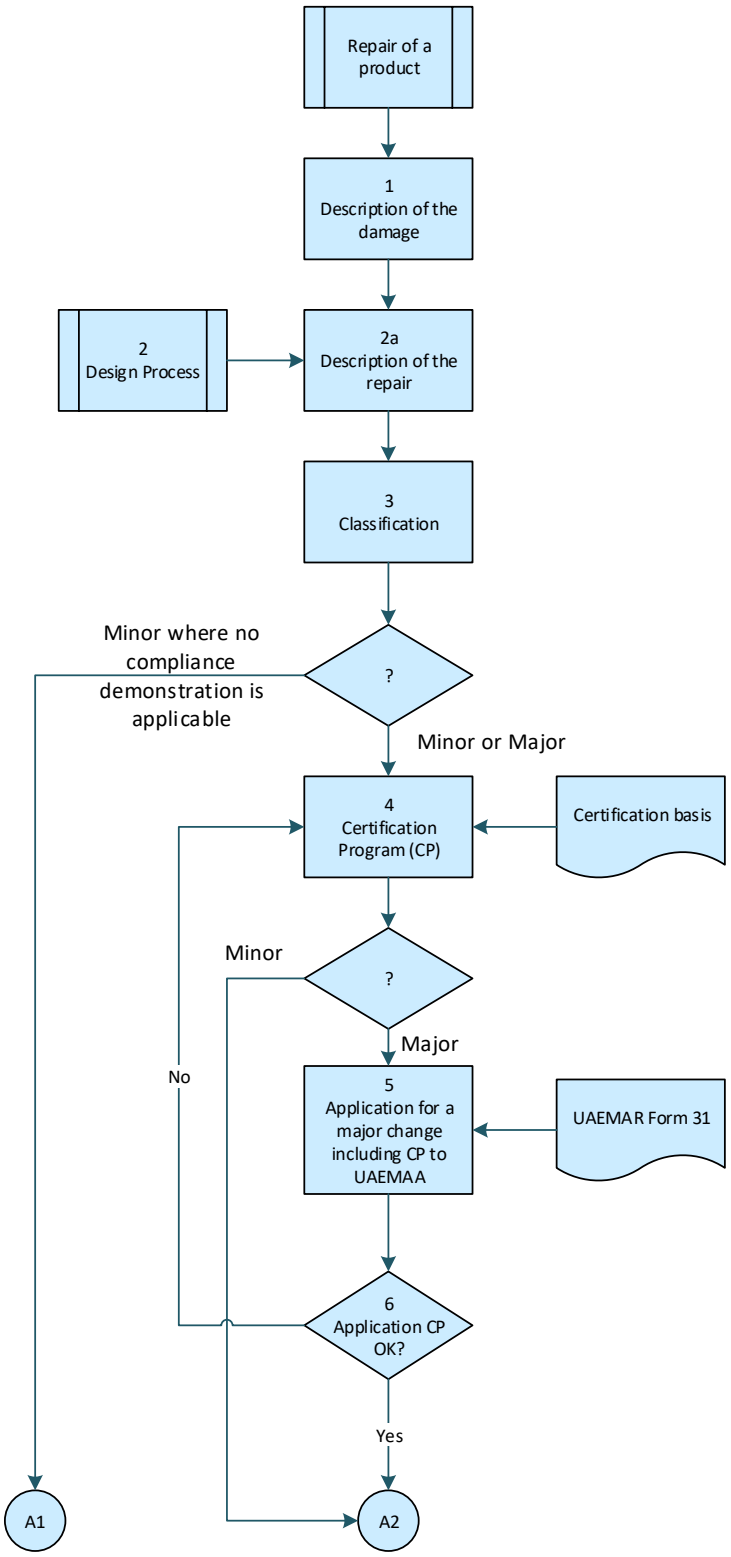
Where an Organisation is seeking privilege(s) in accordance with UAEMAR 21.A.263(c) Sections 1 and/or 2 they should ensure that the content of this section meets the requirements of:

1. AMC No. 1 to 21.A.263(c)(1) for classification of repairs as minor or major.

2. AMC No. 1 to 21.A.263(c)(2) Procedure for the approval of minor changes to type design or approval of minor repairs

Privileges are not valid until the MAA have assessed the organisations competence, included the relevant privilege on the Organisations Terms of Approval.

Example (for repairs on parts or products where the repair holder is not the TC/STC holder or the privilege to approve major repair design is not applicable):



1. *[Describe here who in the design organisation is responsible for describing the damage to be repaired].*

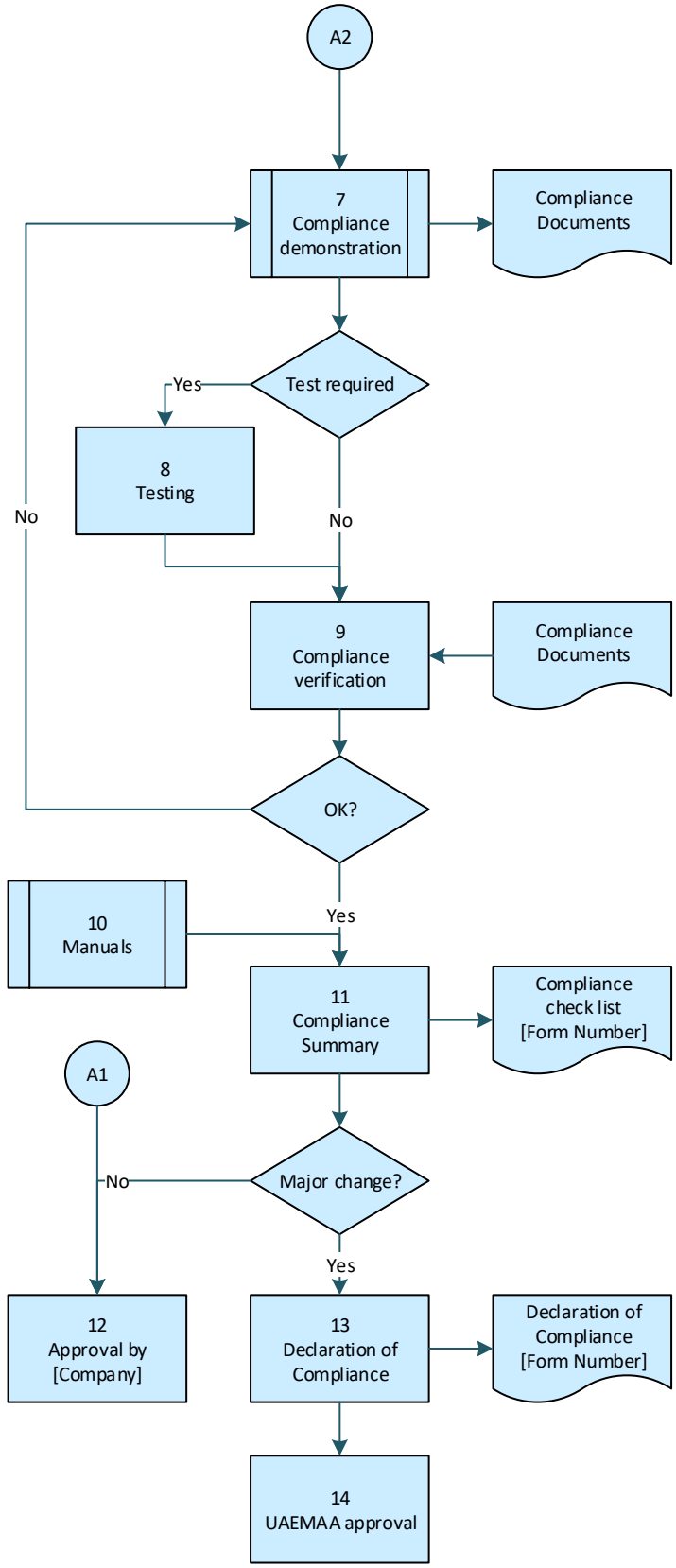
2. The design process can start at this point. See PART 6~~PART 6~~. The type design documents (specifications, drawings, bill of material, production and installation procedures, etc.) are prepared. *[Describe here who in the design organisation is responsible for specifying and describing the repair to be developed.]*

3. The COA together with the CVEs are preparing the classification including the substantiation for it. The COA is responsible for the preparation and will approve it. For further details see Section 4.2.

4. The COA together with the CVEs are preparing the CP. The CP for repairs is part of RAS [Form number]. The COA is responsible for the preparation of the CP and will approve it.

5. *NOTE:*
This step is only necessary when the privilege to approve major repair design is not applicable.
[Describe here who in the design organisation is filling out the application form and sending it to the MAA. The application for a major change shall be accompanied by an overview drawing of the change including preliminary basic data like proposed operating characteristics and limitations. The HOD or COA should check and sign the form].

6. The MAA will allocate a Project No. and will inform the DO on the responsible PCM. The PCM checks the CP and will accept it or will ask for revision.



7. The design engineer prepares the compliance demonstration document according to the certification programme (analysis, compliance statements, reports, etc.). Refer to PART 7~~PART 7~~.

8. For tests (ground test and flight tests) see Section 7.3.

9. The independent checking within respect to completeness and technical content is performed by the appropriate CVE within their field and with respect to their competences.

10. Manuals (see Section 11.1)

11. The Office of Airworthiness is summarising all compliance documents in the Compliance Summary. With his signature the COA declares that the type investigation is finished. (see Section 5.7).
NOTE:
Companies designing a major repair for a product where they are also TC holders can apply for the privilege to approve the repairs by themselves.

12. The HOD approves the Minor Repair by using [Form number].

13. The HOD signs the Declaration of Compliance and Office of Airworthiness sends the Declaration of Compliance including the compliance summary and all compliance documents defined by the PCM (See Section 5.8) Note: Compliance documents and manuals can be sent to the PCM after these documents are approved by the [Organisation name].

14. The MAA will check the documents and will issue the approval of the repair in cases where all requirements are met.

5.1 Damage description

21.A.433

Describe:

a. How repair requests are received and from who?

b. What happens if there is insufficient information to design a repair

c. Who in the DO is responsible for specifying and describing the repair to be designed?

EXAMPLE:

The Design Organisation usually receives a damage report from an operator or a maintenance organisation. The engineering checks if the description is sufficient to be in the position to prepare a repair on this basis. If not the engineering will request further information from the operator or maintenance organisation.

The damage description will be inserted in the Repair Approval Sheet [Form number].

5.2 Repair description

Describe here who in the design organisation is responsible for specifying and describing the repair to be developed

EXAMPLE:

The engineering specifies the repair on the basis of the damage description (see Section 5.1). The repair description will be inserted in the Repair Approval Sheet [Form number].

5.3 Unrepaired damage

21.A.445

Describe how unrepaired damage is evaluated for its airworthiness consequences and who can approve that the damage is left unrepaired.

EXAMPLE:

Also when a damaged product, part or appliance, is left unrepaired, and is not covered by previously approved data, the evaluation of the damage for its airworthiness consequences will be performed according to the procedures in PART 5.

5.4 Classification of Repairs

21.A.435

The procedure should mention directly or by cross reference who is authorised to create, append, modify and approve internally the classification of repairs.

The procedure should describe the classification criteria i.a.w. UAEMAR 21.A.435.

This section should describe how changes are communicated to the MAA

Repairs must be classified as:

a. Major

b. Minor where additional work is necessary to demonstrate compliance with the airworthiness codes.

c. Minor requiring no further demonstration of compliance

EXAMPLE:

The form [Form number] is used to document the classification including the substantiation. The result is transferred then to the first page of the Repair Approval Sheet [Form number].

The classification for Repairs is similar to the classification of Changes.

For classification of repairs in the following Sections the wording “appreciable” is used. The guidance on the word “appreciable” is detailed in Section 4.2.

It is understood that not all the certification substantiation data is available to the Office of Airworthiness classifying repairs. A qualitative judgement of the effects of the repair is therefore acceptable for the initial classification. The subsequent review of the design of the repair may lead to it being re-classified, owing to early judgements being no longer valid.

5.4.1 Minor Repairs

EXAMPLE:

Repairs whose effects are considered Minor and require minimal or no assessment of the original certification substantiation data to ensure that the aircraft still complies with all the relevant requirements, are to be considered Minor.

Repairs will be classified as Minor if they have no appreciable effect on of the product, part or appliance:

1. Weight and Balance:
   The weight of the repair may have a greater effect upon smaller aircraft as opposed to larger aircraft. The effects to be considered are related to overall aircraft centre of gravity and aircraft load distribution. Control surfaces are particularly sensitive to the changes due to the effect upon the stiffness, mass distribution and surface profile which may have an effect upon flutter characteristics and controllability.

2. Structural performance:
   This includes static strength, fatigue, damage tolerance, flutter and stiffness characteristics. Repairs to any element of the structure should be assessed for their effect upon the structural performance

3. Systems:
   Repairs to any elements of a system should be assessed for the effect intended on the operation of the complete system and for the effect on system redundancy. The consequence of a structural repair on an adjacent or remote system should also be considered as above, (for example: airframe repair in area of a static port).

4. Reliability

5. Operational characteristics:
   Changes may include:
   - stall characteristics
   - handling
   - performance and drag
   - vibration
6. Noise fuel venting
7. Exhaust emission
8. Declared life
9. Health:
   Adverse effects on cabin bleed quality.
10. Other characteristics affecting the airworthiness:
    - changes to load path and load sharing
    - fire protection / resistance

Repairs whose effects are considered minor and require minimal or no assessment of the original certification substantiation data to ensure that the aircraft still complies with all the relevant requirements, are to be considered Minor.

For the case that with the minor repair no Certification Specification and no environmental protection requirement is affected, the Office of Airworthiness will state this in the Classification form [Form number] accordingly. A justification of this statement is necessary and is also placed in the Classification form [Form number]. This justification is checked and signed by the applicable CVE.

5.4.1.1 Minor Repair Requiring No Further Demonstration of Compliance

EXAMPLE:

Minor repairs where no compliance demonstration is required are minor repairs where no certification specification including special conditions and environmental protection requirements are applicable. This is documented on form [Form number] with a substantiation for this decision and approved by the Office of Airworthiness.

5.4.2 Major Repairs

EXAMPLE:

A Repair with an appreciable effect on characteristics affecting the airworthiness of the product could be classified as MAJOR, when one or more of the following conditions are met:

1. After repair a permanent additional inspection to the approved maintenance programme is required.
   Temporary repairs for which specific inspections are required prior installation of a permanent repair do not necessarily need to be classified as Major. Also, inspections and changes to inspection frequencies not required as part of the approval to ensure continued airworthiness do not cause classification as Major for the associated repair.
2. Repairs to life limited or critical parts.
3. A repair that introduced a change to the AFM.
4. Repairs which need extensive static, fatigue and damage tolerance strength justification, testing in its own right.
5. Repairs which need methods, techniques or practices that are unusual (i.e. unusual material selection, heat treatment, material process, jigging diagrams, etc.).
6. Repairs that require a re-assessment and re-evaluation of the original certification substantiation data to ensure that the aircraft still complies with all the relevant requirements.

5.5 Type Certification Basis for Repair Design

21.A.17A

Refer to Section 3.2.

EXAMPLE:

The [Organisation name] will demonstrate compliance with the type certification basis and environmental protection requirements listed in the type certification data sheet or the newest valid certification specifications. The Chief of Office of Airworthiness will decide which certification basis will be used depending on practicability, safety and quality benefits.

5.6 Certification Programme

21.A.20(b)

Refer to Section 3.3.

EXAMPLE:

For repairs the [Form number] is used to document the certification programme.

5.7 Compliance with the Type Certification Basis

21.A.20(a)

Refer to Section 3.4

EXAMPLE:

For repairs the [Form number] is used for the compliance check list.

5.8 Declaration of Compliance (Certificate of Design)

21.A.20(e)

Refer to Section 3.5.

5.9 Approval of Repairs

21.A.437

This Section describes the process how a Minor or a Major Design Repair is approved.

Minor Repairs can be approved by either the MAA or the DO under privilege.

Major Repairs are approved by the MAA.

[TEXT HERE]

5.9.1 Approval of Minor Repairs

EXAMPLE:

The approval of a Minor Repair is pronounced on the basis of a completed type investigation. To demonstrate this the Compliance Check List is used (see also Section 5.7) which is part of the [Form number]. After the Office of Airworthiness stated that the type investigation is completed the Head of Design Organisation approves the minor repair by using the [Form number].

5.9.2 Approval of Major Repairs

EXAMPLE (no privilege for major repair approval existing):

On the basis of the completed Compliance Check List (see also Section 5.7) the Head of Design Organisation states the Declaration of Compliance (see Section 5.8). For this the [Form number] is used. The Office of Airworthiness sends this document to the assigned PCM. In case all type investigation documents are completed and correct the MAA will issue the approval for the Major Repair.

PART 6 – DESIGN PROCESS

21.A.239

Detailed description required how the DO manages a design project. The design process shall also describe the tools being used.

The type design documents (specifications, drawings, bill of material, production and installation procedures, etc.) are prepared. Describe here the complete design process (who is taking the project lead, which tools are used, which kind of tasks are delegated to a design supplier, etc.). A link to a separate document describing the design process could be sufficient.

6.1 Initiation of Design Process

The procedure should describe how the design process is initiated within the design organisation.

6.2 Management of Design Project

[TEXT HERE]

6.3 Drawings, Bill of Material

[TEXT HERE]

6.4 Configuration Control

21.A.133(b) & (c)

Configuration control is essential to provide identification and traceability of designed and repaired parts and products. This chapter should describe how this can be assured by the DO.
Following issues have to be addressed:

- *Who is responsible for the configuration control?*
- *Description of the tool be used*
- *Part Number*
- *Serial Number*
- *Drawing Number*
- *Bill of Material*
- *Relation between drawing and part number*
- *How are issues and revisions handled?*

6.4.1 Marking

21.A.Subpart Q

The procedure should describe how the marking requirement of 21.A.Subpart Q are taken into account and specified in the design data:

1. *Information to be marked, including EPA letters, as relevant*
2. *Size*
3. *Place*
4. *Type of marking*

PART 7 – COMPLIANCE DEMONSTRATION

21.A.239(a)(1)

This section should describe:

a. The scope of compliance documents,

b. The document numbering system,

c. Who issues compliance documents,

d. Who approved compliance documents,

The compliance document(s) shall cover following issues:

a. Reference to the project,

b. Reference to the airworthiness code to which compliance is demonstrated,

c. Summary or conclusion which states compliance to the referenced requirements,

d. Author (design engineer) signature,

e. How the test specimen is assessed and by who,

f. CVE signature (as checked).

NOTE: The MAA reserves the right to witness the tests performed within the certification process.

7.1 Compliance Statements

[TEXT HERE]

7.2 Analysis

[TEXT HERE]

7.3 Investigation and Testing

21.A.33 and 35

EXAMPLE:

[Organisation name] performs investigations and tests necessary to demonstrate compliance with the applicable type certification basis and environmental protection requirements. These tests are defined in the Certification Programme and detailed in a Test Plan.

7.3.1 Test Plan

EXAMPLE:

For each compliance test a test plan which is based on the agreed certification programme shall be issued. The test plan is part of the compliance demonstration. The test plan describes in detail the scope of the test including the Certification Specification supported by the test, the test procedure including inspection requirement, the proposed test results including fail/pass criteria, the test

location, test facility, etc. For the test plan the [Form number] shall be used. The test plan has to be checked and approved by the relevant CVE.

7.3.2 Conformity Inspection, Conformity Statement

EXAMPLE:

The build standard of the test specimen must be representative of the TC/Change/ Repair for the particular test. The authorised quality assurance representative of the manufacturer ensures via samples of the manufacturing and equipment documentation before the test starts that:

a. the test specimen, all relevant parts, the manufacturing processes, materials, construction and assembly conform to the specifications (e.g. Test Plan, Engineering Order, etc.)
b. any deviations and non-conformances were justified and approved by the relevant CVE
c. qualification of the test facility set-up and their calibration.

The result is summarised in a statement of conformity or in an UAEMAR Form 1 (only for conformity, not eligible for installation on in-service type-certificated aircraft / engine / propeller) presented to the MAA if requested by the Office of Airworthiness. For the statement of conformity the Form [Form number] is used.

In case the conformity statement is part of the test report, the CVE confirms with his signature the upper mentioned issues after the test was performed.

7.3.3 Witnessing

EXAMPLE:

Both the MAA and the Office of Airworthiness reserve the right to witness the tests performed within the certification process. All compliance tests have to be reported to the Office of Airworthiness in due time (at least 2 weeks before start). In case the MAA requested to witness the test the Office of Airworthiness informs the MAA as soon as possible.

The Office of Airworthiness witnesses all tests, which are:

1. required by the certification specification
2. delegated from the Project Certification Manager (PCM) of the MAA to the Office of Airworthiness

Nevertheless, the Office of Airworthiness and the MAA has right to witness any other compliance tests any time.

Witnessing of these tests can be delegated from the Office of Airworthiness to a CVE.

To document the witnessing the Form [Form number] is used.

7.3.4 Laboratory Tests

EXAMPLE:

The test facility and test bed equipment shall be adequate for the test performed.

If the own test bed and equipment is not adequate, external test facilities support may be used when approved by the [Organisation name] or supervised by personal of the [Organisation name] qualified personal and shall be audited regularly by the [Organisation name] (see also PART 12).

7.3.5 Ground Tests

[TEXT HERE]

7.3.6 Flight Tests

EXAMPLE:

See Section 0~~13.5~~ - [Flight Test Operations Manual]

7.3.7 Test Report

EXAMPLE:

The test report is the final document for a test. The [Form number] is used for the test report. The test report contains following information:

a. reference to the project no.

b. reference to the certification programme

c. reference to the conformity inspection

d. title of the project

e. purpose of the test

f. list of the certification specification requirements which are supported by the test

g. reference to the test plan

h. detailed description of the deviations to the test plan

i. test result (fail/pass criteria)

j. statement that the part tested complies with the specified requirements under fail/pass criteria mentioned in the test plan

NOTE: The test report is a compliance demonstration document therefor see also Section 7.3.8

7.3.8 Compliance Demonstration Document

This Section describes:

a. The scope of a Compliance Document

b. The document numbering system

c. By whom a Compliance Document is issued

d. By whom a Compliance Document is approved

A reference to a form which implements the main issues of a compliance document would be beneficial.

The Compliance Document shall cover the following issues:

a. Reference to the project

b. Reference to the certification specification to which compliance is demonstrated

c. Summary/conclusion which states compliance to the referenced requirements

d. Author (design engineer) signature

e. CVE signature (as checked)

EXAMPLE:

Compliance Demonstration Document shall be prepared. It is also possible to merge several requirements in one Compliance Demonstration Document if reasonable. This Compliance Demonstration Document describes the Means of Compliance and summarises the compliance findings. The complete set of Compliance Demonstration Documents shall cover the defined requirements listed in the Certification Programme.

All Compliance Demonstration Documents are archived in order to provide the information necessary to ensure the continued airworthiness. See also Section 10.1.

The compliance demonstration documents shall be signed by:

1. The Design Engineer (author)
2. The CVE (checked and approved)

NOTE: The Design Engineer and the CVE shall not be the same person.

The Design Engineer signs the document that the:

- technical content is correct.
- technical content and the means of compliance is in accordance with the referenced Certification Programme.
- compliance demonstration fulfils the referenced certification specification.
- referenced documents are available.

The CVE signs the document that he independently:

- checked the technical content including all referenced documents despite they were already checked by other CVE.
- checked that the referenced certification specification is completely fulfilled.

PART 8 – PERMIT TO FLY

21.A.Subpart P

8.1 Establishment and Approval of Flight Conditions

21.A.708, 710

In case the Design Organisations wishes to obtain the privilege to approve flight conditions (UAEMAR 21.A.263(c)(6)), a procedure in accordance with UAEMAR AMC 21.A.263(c)(6) shall be prepared.

Design Organisations not holding the UAEMAR 21.A.263(c)(6) privilege shall prepare a procedure describing the establishment and application for approval of flight conditions. This procedure shall cover following points of AMC 21A.263(c)(6):

a. Management of the aircraft configuration

b. Determination of the conditions that must be complied with to perform safely a flight

c. Documentation of flight conditions substantiations

In addition it shall include:

a. description of how the addressee is identified based on the criteria specified in UAEMAR 21.A.709(a) (i.e. related to the safety of the design or not),

b. identification of the application form to be used (UAEMAR Form 18b) and the documents to accompany that application

c. identification of the person(s) authorised to sign the application

[TEXT HERE]

8.2 Application for / Issue of a Military Permit to Fly

In case the DOs wishes to obtain the privilege to issue a Military Permit to Fly (UAEMAR 21.A.263(c)(7)) a procedure in accordance with UAEMAR AMC 21.A.263(c)(7) shall be prepared.

DOs not holding the UAEMAR 21.A.263(c)(7) privilege shall prepare a procedure describing the application for a Military Permit to Fly. This procedure shall cover following points:

a. identification of the application form (UAEMAR Form 21) to be used and the documents to accompany that application,

b. identification of the person(s) authorised to sign the application,

c. identification of issues invalidating a permit to fly,

d. Communication with the MAA.

[TEXT HERE]

PART 9 – COORDINATION BETWEEN DESIGN AND PO/MO

9.1 Coordination between design and production

21.A.4(a)

The procedure should:

a. Describe the link established between design and production. In the case where the production is made by a separate legal entity, a formal arrangement shall be signed between the two companies. The minimum information in UAEMAR AMC No 1 to 21.A.133(b) and (c) should be included in the formal agreement.

b. Cover the transfer of information from the DO to the production organisation (refer to UAEMAR AMC 21.A.4).

c. Cover the deviation and concession process. Production deviations from the approved design data should be treated through the changes approval process.

d. Mention directly or by cross reference who is authorised to sign associated documents.

EXAMPLE (for a company where the production is in the same entity as the MDOA):

Coordination between the [Organisation name] design organisation and the [Organisation name] production organisation is ensured through the [Organisation name] quality system wherein the design organisation assures that:

a. All necessary airworthiness data as drawings, specifications, dimensional data, processes, surface treatment, shipping conditions, qualification requirements are correct and up to date

b. All above mentioned documents are timely transferred to the production organisation to enable the production organisation to draw up a certificate of conformity or a release note.

c. All continued airworthiness aspects are supported by the production organisation.

9.1.1 Data Exchange

EXAMPLE:

To assure the data exchange the Office of Airworthiness provides all approved data to the production organisation in a separate folder [“approved design data”] where just approved data is collected. In case parts have to be produced for compliance demonstration or prototyping purposes the data is provided by the Office of Airworthiness in the folder [“released design data”]. Both folders are protected and no changes can be made by unauthorised staff.

This arrangement enables the production organisation to verify that their deliveries conform to applicable airworthiness data.

The procedure to provide data to the production organisation comprises the major steps:

a. checking of approved / release signatures requested on the authorisation record

b. formal approval / release of the design documents

c. provide documents to the production organisation including delivery documentation via the [Organisation name] data base.

9.1.2 Production Deviations, Concessions

EXAMPLE:

Every unintended deviation from the design data on a part during production shall be documented with the concession form [Form number].

The following steps have to be followed:

a. The production organisation describes the deviation / non-compliance of the part.

b. The design engineer assesses the part. The following possibilities are available:

   1. scrap
   2. us as is
   3. rework the part

   When the decision is that the part has to be scrapped the rejected part is marked unserviceable according to the process of the production organisation.

c. The deviation will be classified as major/minor according to Section 4.2 by the Office of Airworthiness.

d. In case of major the process according to Section 4.2 has to be followed. In case of minor the Office of Airworthiness defines the affected certification specification on the concession form.

e. The design engineer prepares the compliance demonstration which can be directly performed on the concession form or referenced there.

f. The applicable CVEs checks and approve the compliance demonstration

g. The Office of Airworthiness approves the concession direct on the concession form.

h. The concession including all referenced documents are archived according to Section 10.1.

9.2 Coordination between Design and Maintenance

When the first installation of a design change, or a repair design, requires the assistance of a Maintenance and Repair Organisation (MRO), the DO needs to ensure effective and efficient coordination with the MRO. This coordination is especially important when the MRO will perform some of the compliance demonstration activities.

In these cases, the MDOA Holder should establish how the transfer of information will be organised, how the tasks performed by the MRO will be supervised, and how the final deliverables will be validated. Topics such as configuration management, component handling, on-aircraft development of the change or repair, etc., have to be addressed.

The procedure should list the responsibilities taken over by each organisation, including the involvement of the MRO in the preparation and review of design data and the related statement of conformity. In the case where the MRO is a separate legal entity, a formal arrangement shall be signed between the two companies.

[TEXT HERE]

PART 10 – DOCUMENT CONTROL

21.A.55, 105, 447

10.1 Record Keeping

The procedure should describe the record keeping or archiving system in place in the DO and define who is responsible for this task.

For each design activity, all relevant design information, drawings, test reports, instructions and limitations issued, justification for classification and evidence of the design approval, shall:

a. Be held by the design approval holder at the disposal of the MAA, and

b. Be retained by the design approval holder in order to provide the information necessary to ensure the continued airworthiness of the products, parts or appliances.

There is no limitation of duration. Records should be kept available for a minimum of 2 years after the products, parts or appliances out of service date.

EXAMPLE:

The preparation and approvals of all certification documents has to follow the MDOE procedures. Any handwritten change to the pre-filled form (e.g. editorial corrections) has to be signed by the responsible Design Engineer with date and signature.

The full design data which are produced by [Organisation name] are stored within the [Organisation name] electronic document storage/retrieval and archiving system [Database]. All design data including drawings, test reports, instructions, limitations and basic documents like coordination memos are stored in [Database]. All forms (templates) to be used in the design organisation are also stored in [Database].

All certification documents and ICA are linked to the internal project number. The originals (signed documents) are stored in the archive by the Office of Airworthiness and will not be handed out to unauthorised persons. Copies can be made on request.

Additionally, to storing them digitally in the system, the originals of documents (reports) are stored separately for long term archiving. The originals of drawings and schemes are, additionally to the storage in the system, stored as pdf-files with digital signatures. All data are stored on 2 different places.

For Type Design data the retention period is “Life of Product” plus further 2 years.

The MAA has any time access to all type investigation documents.

[TEXT HERE]

PART 11 – CONTINUED AIRWORTHINESS

21.A.61, 107, 120, 449

The procedure should describe the system put in place for ensuring safe operation of the product and informing the MAA and operators concerning Instructions for Continued Airworthiness.

Where an Organisation is seeking privilege(s) in accordance with UAEMAR 21.A263(c)3 they should ensure that the content of this section meets the requirements of UAEMAR AMC No 1 to 21.A.263(c)1 for classification of repairs as minor or major.

11.1 Manuals

21.A.57

The procedure should explain how the DO is organised to produce, maintain and update copies of all manuals required by the certification basis for the product and provide copies, on request, to the MAA (UAEMAR 21.A.57, 21.A.119).

The manuals UAEMAR 21 is to include:

a. Aircraft Maintenance Manual

b. Illustrated Parts Catalogue

c. Aircraft Repair Manuals

d. Aircrew Manual

11.1.1 Aircraft Flight Manual (AFM)

[TEXT HERE]

11.1.2 Aircraft Maintenance Manual (AMM)

[TEXT HERE]

11.1.3 Structural Repair Manual (SRM)

[TEXT HERE]

11.1.4 Parts Catalogue

[TEXT HERE]

11.2 Instructions for Continued Airworthiness

21.A.61, 107, 120, 449

In order to fully answer the requirements, the process describing the manual management process should be completed with specific instructions concerning the preparation and publication of accomplishment instructions to the owners, by the mean of Service Bulletins or Repair Approval Sheets. Service Bulletins can be used for describing accomplishment instructions (change implementation) but also for inspection instructions, further to an applicable Airworthiness Directive. Repair Approval Sheets are used to describe a repair but also for further inspection instructions related to a repair.

The MAA does not approve information or instructions. Statement should refer to the fact that the documentation has been produced in accordance with MDOA procedures, or refer to technical data that has been approved by the MAA or by the Design Organisation.

EXAMPLE:

The following documents are issued by [Organisation name]:

- Aircraft Maintenance Manual (AMM) (including Airworthiness Limitations like life limited parts)
- Service Bulletins (SB)
- Alert Service Bulletins (ASB)
- Repair Approval Sheets (RAS)

11.2.1 Service Bulletins (SB)

EXAMPLE:

Service Bulletins (SB) are issued to provide instructions for changes/modifications of a part or product. It can be also used to provide maintenance organisations with necessary maintenance data for the performance of maintenance, including inspections. The categories of application specify the order of precedence in which Service Bulletins are incorporated.

1. Customer Option:
   The Service Bulletin will be incorporated upon costumer request.

2. Recommended:
   The incorporation of this Service Bulletin is recommended by the [Organisation name] Design Organisation.

3. Mandatory:
   This Service Bulletin will be sent to the MAA for approval with the request to issue an Airworthiness Directive. The Service Bulletin must be incorporated according to the requirements of the Airworthiness Directive.

The establishing and checking of Service Bulletins is based on the approved minor or major changes. Therefore, every Service Bulletin states that “the technical content of this document is approved under the authority of MDOA ref. UAE.MAA.21J.XXXX”.

- The Chief of the Office of Airworthiness will approve the Service Bulletin when, in case of major change, the change is approved by the MAA and in case of minor change when the Head of Design Organisation has approved the minor change.

- With the signature the Chief of the Office of Airworthiness confirms that the technical content has been checked and the change described is approved.
- For the Service Bulletin the form [Form number] is used.

Numbering System of Service Bulletins:

SB-[Organisation Id]-[sequential number] (e.g.: SB-DO-061)

11.2.2 Alert Service Bulletin (ASB)

EXAMPLE:

Alert Service Bulletins are used just in case of safety-critical situations. The Alert Service Bulletin must contain at least all information required for implementing immediate measures.

In urgent cases where the safety of aircraft may be affected, an Alert Service Bulletin is produced as quickly as possible and sent to the operators and the MAA. In such cases the measures defined by the [Organisation name] may be released for publication by the Design Organisation's authorised signatories only (Chief of the Office of Airworthiness, Head of the Design Organisation). Usually the content of an Alert Service Bulletin is implementation of extraordinary inspections or life limitations which are not based on an approved change but on fleet experience, events or analysis results.

- Alert Service Bulletin are by definition Mandatory, therefore the MAA will be requested to issue an Airworthiness Directive.
- The Chief of the Office of Airworthiness will approve the Alert Service Bulletin.
- In case technical changes will be introduced the Alert Service Bulletin must be based on an already approved change.
- With the signature the Chief of the Office of Airworthiness confirms that the technical content has been checked and the change described is approved.

For the Alert Service Bulletin the [Form number] is used.

Numbering System of Service Bulletins:

ASB-[Organisation Id]-[sequential number] (e.g.: ASB-DO-001).

11.2.3 Repair Approval Sheet (RAS)

EXAMPLE:

The RAS is intended to provide information for maintenance stations which describes a specific repair, which is not covered in the repair manuals. It is prepared only for a component on the basis of the information supplied to the [Organisation name]. The approval procedure for Repair Approval Sheet is described in PART 5.

For the Repair Approval Sheet the [Form number] is used.

Numbering System of Service Bulletins:

RAS-[Organisation id]-[sequential number] (e.g.: RAS-DO-019)

11.3 Failures, Malfunctions and Defects

21.A.3A

The procedure should describe the system put in place for collection, investigation and analysis of data related to failures, malfunctions, defects or other occurrences which cause or might cause adverse effects on the continued airworthiness of DO products, parts or appliances.

The procedure should mention directly or by cross reference with Section 1.9, who is authorised to create, append, and modify the data collected and report to the MAA.

The procedure should also explain how the organisation carries out any required technical investigation subsequent to an occurrence.

Finally, the procedure should explain, in the case where an Airworthiness Directive is published, how the organisation is cooperating with the MAA (UAEMAR 21.A.3B).

The procedure should include airworthiness review meetings with the MAA, as appropriate.

11.3.1 Monitoring Occurrences

EXAMPLE:

The Chief of the Office of Airworthiness is responsible for the monitoring of events/occurrences on [Organisation name]'s products but also other aeronautical products as far as relevant to determine their effect on airworthiness being designed by [Organisation name].

All information is collected by the Office of Airworthiness. The information be received from:

- Internally
- Production Organisation
- Maintenance Organisation
- Operator, owner

The form to be used to report to [Organisation name] is provided with the aircraft manual. In addition on each Service Bulletin and on [Organisation name]'s webpage the contact address (e-mail) is distributed, so the information can be transferred in any way to the [Organisation name]. In any case the information will be evaluated and relevant actions will be introduced.

11.3.2 Classification and Investigation of Occurrences

EXAMPLE:

Occurrences, which present definitely no flight safety risk (e.g. pure quality issues, where none of the affected parts have been delivered) will be filtered out by the Office of Airworthiness. In this case the issue will be closed at this early stage and forwarded directly to the affected department for further action.

All other occurrences will be discussed and classified with the related CVEs considering following points:

- Is all information available which enable a decision?
- Is there further information necessary from the costumer/ TC-Holder?

- Has the customer/ TC-Holder to be informed in advance?
- Is flight safety affected?
- Are corrective actions required?
- Are immediate actions required?

The result of this initial investigation is recorded on the “Occurrence Record Form” [Form number].

Based on the result of the investigation necessary actions are defined and initiated.

Classification	Description	Report
Catastrophic	Failure conditions, which would result or could have resulted in multiple fatalities, usually with the loss of the aeroplane.	Immediately: • Inform the MAA by phone, or e-mail • Inform all known operator of affected aeroplanes or affected persons. Within 72 hours: • Complete report to the MAA. • Technical Note to the MAA for issuing an AD
Hazardous	Failure conditions, which could reduce the capability of the aeroplane or the ability of the crew to cope with adverse operating, conditions to the extent that there would be: • A large reduction in safety margins or functional capabilities; • Physical distress or excessive workload such that the flight crew cannot be relied upon to perform their tasks accurately or completely; or • Serious or fatal injury to a relatively small number of the occupants other than the flight crew.	Immediately: • Inform the MAA by phone, or e-mail • Inform all known operator of affected aeroplanes or affected persons. Within 72 hours: • Complete report to the MAA. • Technical Note to the MAA for issuing an AD
Major	Failure conditions, which could reduce the capability of the aeroplane or the ability of the crew to cope with adverse operating conditions to the extent that there would be: • A significant reduction in safety margins or functional capabilities • A significant increase in crew workload or in conditions impairing crew efficiency or discomfort to the flight crew • A physical distress to passengers or crew, possibly including injuries.	In dependence of the level of a possible hazard within 72 hours: • Complete report to the MAA • Inform all known operator of affected aeroplanes or affected persons. • Technical Note to the MAA for issuing an AD
Minor	Failure conditions which would not significantly reduce aeroplane safety, and which involve crew actions that are well within their capabilities. Minor failure conditions may include: • A slight reduction in safety margins or functional capabilities • A slight increase in crew workload such as routine flight plan changes • Some physical discomfort to passengers or cabin crew	• Treatment as complaint • Inform all known operators or affected persons by Service Bulletin Only if necessary: technical note to the MAA for issuing an AD

11.3.2.1 List of examples of reportable occurrences

EXAMPLE:

The EASA AMC 20-8 lists reportable occurrences. This list of examples will not be used by the [Organisation name] directly for the purpose of determining when an occurrence has to be reported to the MAA. It will rather serve as guidance for establishing a system for data collection. After receipt of reports from a primary source of information, the [Organisation name] will perform an analysis to determine whether an occurrence has resulted or may result in an unsafe condition and report it to the MAA.

11.3.3 Occurrence Report

EXAMPLE:

To report an event or any other safety related issue the “Occurrence Report” [Form number] is used. In this form all information is recorded including:

- Affected aircraft/part
- Problem description
- Immediate actions taken
- Investigations, further steps
- Information if this occurrence has to be reported to the MAA or not including justification.

This report is signed by the affected CVE and Office of Airworthiness.

11.3.4 Reporting to the Military Airworthiness Authority

EXAMPLE:

To inform the MAA the Occurrence Reporting Form (UAEMAR Form 44) is used.

11.3.5 Airworthiness Directives (AD)

EXAMPLE:

An AD is a document issued by the MAA which mandates actions to be performed on the aircraft to restore an acceptable level of safety.

The MAA shall issue an airworthiness directive when:

- an unsafe condition has been determined by the MAA to exist in an aircraft, as a result of a deficiency in the aircraft, or an engine, propeller, part or appliance installed on this aircraft; and
- that condition is likely to exist or develop in other aircraft.

The Office of Airworthiness provides all necessary information and support to define measures to be implemented to restore the level of safety. For this the [Organisation name] will issue a Service Bulletin or an Alert Service Bulletin.

See also Sections 11.2.1 and 11.2.2.

PART 12 – DESIGN SUPPLIERS

21.A.239

Where design suppliers are used, the processes should describe:

a. How the technical assessment of partners or design supplier is carried out by the organisation.

b. How design changes initiated by design suppliers and how these changes are notified and accepted by the DO.

c. Scope of work.

d. Which Sections of the MDOE are to be followed.

e. Nomination of Design Engineer or CVE.

f. Possibility of scheduled or unscheduled audits at the design supplier by the DO.

g. How reportable defects are communicated to the of Design.

h. Arrangements to allow MAA access.

EXAMPLE:

In case [Organisation name] sees the need to subcontract design work outside the [Organisation name] design organisation the Head of Design will select a design supplier with sufficient qualification.

It is possible to involve design suppliers:

- with own UAEMAR design organisation approval (with MDOA) (or equivalent), or
- without own UAEMAR design organisation approval (without MDOA), or
- as a single person

When employing design suppliers, individual “Work Share Agreements” will be signed between [Organisation name] and the design suppliers where [Organisation name]’s basic requirements towards the design suppliers are listed. The agreement contains a description of the design suppliers organisation and design activities (see UAEMAR 21.A.243(b)).

Following arrangements have to be defined:

- Scope of Work
- List of affected Sections of the MDOE which have to be followed.
- Nomination as design engineer or CVE.
- Possibility for [Organisation name] to carry out scheduled or unscheduled audits at the design supplier.
- Agreement to allow the MAA to perform any investigations necessary to determine compliance and continued compliance with the applicable requirements of UAEMAR 21.A.257(a)).
- Design suppliers are obligated to inform the Head of Design immediately, by telephone or electronic mail, of any defects that may be classified as “Reportable defects” as defined in EASA AMC 20-8.

- Should an error be found in, or a change be required to the design drawings or documentation, the supplier will raise a design query note to the [Organisation name].
- For design suppliers with MDOA:
  - Information on MAA or internal level one or level two findings must be provided to [Organisation name] in case it affects the working arrangement.
  - Information of any changes to the terms of approval or limitations must be provided to [Organisation name].
  - Regular coordination and link up of ISMs from both sides.
  - Access is given to design suppliers DOE sections that are relevant for the subcontracted task.

12.1 Selection Criteria for Design Suppliers

EXAMPLE:

For completely unknown design suppliers a detail qualification assessment will be conducted at the location of the design supplier. For design suppliers with verified qualification from independent institutions, covering the intended scope of work, this verification can be used as selection basis. For design suppliers where work experience exists between [Organisation name] and the design supplier, based upon previous work conducted, even when outside of or prior to the existence of the [Organisation name], this experience can be considered sufficient as selection basis without further evaluation.

If the design supplier's scope of work entails test activities, the relevant test equipment as well as test procedures are verified (with regards to capacity, appropriateness, accuracy, calibration records etc.). The Work Share Agreement must show a requirement that [Organisation name] must be informed of any modification to the equipment that might have influence on the assessment, prior to usage of this changed equipment for tasks conducted on behalf of [Organisation name].

Only if the result of these assessments is satisfactory, the company may be chosen to perform the intended tasks for [Organisation name]. The assessment results will be archived in the same way as compliance demonstration reports (see Section 10.1).

12.1.1 Subcontracting to Design Suppliers without MDOA

EXAMPLE:

Before allocating any task to a non-qualified potential design supplier, the QMS of that company, if existing, is evaluated under the responsibility of the [Organisation name] ISM, considering the specific task intended for subcontracting. In addition the qualification of the potential design supplier is verified by the Head of Design, also considering the specific task intended for subcontracting.

Additional audits are instigated on request of [Organisation name]'s Head of Design Organisation or Chief of the Office of Airworthiness or by Chief of ISM at any time. The audits are limited to those processes that are relevant to and concern the work that is performed for [Organisation name] design organisation. As single person offices typically do not have or require a quality management system, in this case only an initial assessment is required. This assessment shall confirm the qualification for the intended task. A re-audit is not required. Continuous quality and correctness of delivered data is ensured by the provisions of the deliverables acceptance.

Non-approved design suppliers or single person offices may conduct design tasks only under supervision of a design engineer of [Organisation name]'s design organisation. All design results have to be checked and signed by the design engineer of [Organisation name]. The results are further on treated as if generated by this design engineer (UAEMAR 21A.239(c)). Upon completion and delivery, design results and compliance documentation are checked and signed by the design engineer of [Organisation name] and only then verified and approved by CVE of [Organisation name] following this Exposition. (UAEMAR 21A.243(b)).

12.1.2 Subcontracting to Design Suppliers with MDOA

EXAMPLE:

Design suppliers must verify and prove to [Organisation name] that the task they perform for [Organisation name] is covered by their MDOA. For this they have to give [Organisation name] access to their DOE and associated process descriptions. In case of unclear issues the ISM of [Organisation name] may conduct an audit at the design supplier. [Organisation name] reserves the right (refer to Work Share Agreement) to request and receive all information and results of ISM activities and MAA audits performed at design supplier level.

This information is perused and evaluated by [Organisation name] and if evaluation results give reasons for concern, [Organisation name] may decide to perform an own audit on the subject area. Additional audits are instigated on request of [Organisation name]'s Head of Design Organisation, Chief of the Office of Airworthiness or Chief of ISM. If any of the audits above provides unsatisfactory results that can not immediately be remedied with positive effect to the subcontracted work in order to satisfy the requirements of this MDOE, then these design suppliers are treated like design suppliers without MDOA.

Approved design suppliers can conduct complete design tasks within their scope of work. The design supplier must be provided with all required information regarding the Certification Programme as necessary for the task. The Design supplier runs the design activity under his approved design assurance system.

Depending on the agreements defined within the individual work share agreement, deliverables from qualified design suppliers may be accepted with CVE approval from the design supplier and do not

require CVE verification within [Organisation name]. In all other cases verification is done (in addition) by a CVE within [Organisation name]. (21A.239(c)).

12.2 Design Supplier, CVE Nomination

It is possible to nominate a person of the design supplier as CVE of the DO for a specific task. Where this is the case, the selection and approval of the design suppliers CVE should follow that defined for internal CVE's, refer section 1.7.2.

12.2.1 CVE at a design supplier without MDOA

EXAMPLE:

It is possible to nominate a person of the design supplier as CVE of [Organisation name] design organisation for a specific task. In this case his personal records, like Curriculum Vitae, documented evidence of qualification and experience, etc. are to be provided to [Organisation name]'s Head of Design Organisation where it is treated and stored in the same way as mentioned in Section 1.7. The nominated person must be trained and made aware of all DOE Sections and procedures relevant to their activity. In addition, they get full access to all DOE sections that are applicable to his specific task and duties. It must be ensured that the CVE reports direct to the Office of Airworthiness at [Organisation name]. This will be stated in the nomination sheet of each CVE.

12.2.2 CVE at Design Supplier with MDOA

EXAMPLE:

Nominated design engineers or CVEs of design suppliers with approved design organisation may be accepted on the basis of the approved provisions of the design supplier's DOE. In this case no personnel records for these design engineers or CVEs of approved design suppliers are kept at [Organisation name].

The Work Share agreement defines technical expertise needed to cover [Organisation name] scope of work for the project. In addition, the CVEs are identified in this agreement. The design supplier is obliged to inform [Organisation name] about any changes to its qualification requirements or to the status of nomination of the person.

PART 13 – SAFETY MANAGEMENT SYSTEM

13.1 Description of the Safety Management System

UAEMAR SMS

This section can be dedicated to describe the organisation's Safety Management System (note that a reference to an external SMS manual within the Exposition document may also/instead be used).

APPENDICES

Appendix A – Abbreviations and Acronyms

This section should set out the meaning of any abbreviations, acronyms and unique terms used in the exposition. For example:

AD	*Airworthiness Directive*
AMC	*Acceptable Means of Compliance*
DO	*Design Organisation*
GM	*Guidance Material*
MDOE	*Military Design Organisation Exposition*
UAE MAA	*United Arab Emirates Military Airworthiness Authority*
UAEMAR	*United Arab Emirates Military Airworthiness Regulations*

[TEXT HERE]

Appendix B – Definitions

This section should set out the definitions used in the exposition.

[TEXT HERE]

Appendix C – List of Referenced Procedures

This section should list referenced procedures used in the exposition.

[TEXT HERE]

Reference	Title	Revision

Appendix D – List of Forms and Templates

This section should list the forms and templates used in the exposition. For example:

[TEXT HERE]

Reference	Title	Revision
	Application and Classification	
	Certification Programme	
	Compliance Demonstration Report	
	Compliance Check List	
	Test Plan	
	Statement of Conformity	
	Test Witness Report	
	Minor Change Approval	
	Declaration of Compliance	
	Service Bulletin	
	Occurrence Record Form	
	Alert Service Bulletin	
	Repair Approval Sheet	
	CVE nomination sheet	
	Audit Plan	
	Audit Report	
	Action and Finding List	

Appendix E – Flight Test Operations Manual

This section should contain or reference the Flight Test Operations Manual.

Appendix F – UAEMAR 21 Requirements Cross Reference Matrix

This section shall include a compliance matrix (template provided below) for the organisation to demonstrate how its MDOE meets the requirements of UAEMAR 21J. Tick box ☑ to validate and add additional references if needed to meet UAEMAR 21 requirements.

UAEMAR	MDOE paragraph(s) and other documentation references	QM Validation
SUBPART A	**GENERAL PROVISIONS**	
21.A.001		N/A
21.A.002		N/A
21.A.003A		N/A
21.A.003A (a)		N/A
21.A.003A (a) 1.	11.3	☐
21.A.003A (b)		N/A
21.A.003A (b) 1.	11.3.4	☐
21.A.003A (b) 2.	11.3.3	☐
21.A.003A (c)		N/A
21.A.003A (c) 1.	11.3.2	☐
21.A.003A (c) 2.	11.3.3	☐
21.A.003B		N/A
21.A.003B (a)		N/A
21.A.003B (b)		N/A
21.A.003B (b) 1.		N/A
21.A.003B (b) 2.		N/A
21.A.003B (c)		N/A
21.A.003B (c) 1.	1.8.3, 11.3.5	☐
21.A.003B (c) 2.	1.8.3, 11.3.5	☐
21.A.003B (d)		N/A
21.A.003B (d) 1.		N/A
21.A.003B (d) 2.		N/A
21.A.003B (d) 3.		N/A
21.A.003B (d) 4.		N/A
21.A.003B (d) 5.		N/A
21.A.004		N/A
21.A.004 (a)	9.1	☐
21.A.004 (b)	9.1	☐

UAEMAR	MDOE paragraph(s) and other documentation references	QM Validation
SUBPART B	**MILITARY TYPE CERTIFICATES AND MILITARY RESTRICTED TYPE CERTIFICATES**	
21.A.011		N/A
21.A.013		N/A
21.A.014		N/A
21.A.014 (a)	Military Design Organisation Approval	☐
21.A.014 (b)	Authority Agreement (if applicable)	☐
21.A.014 (b) 1.		N/A
21.A.014 (b) 2.		N/A
21.A.014 (b) 3.		N/A
21.A.014 (b) 4.		N/A
21.A.014 (c)	PART 12~~PART 12~~, Government Organisation Agreements	☐
21.A.015		N/A
21.A.015 (a)	PART 3~~PART 3~~	☐
21.A.015 (b)		N/A
21.A.015 (c)		N/A
21.A.016A		N/A
21.A.016B		N/A
21.A.016B (a)	3.3, 3.4	☐
21.A.016B (a) 1.		N/A
21.A.016B (a) 2.		N/A
21.A.016B (a) 3.		N/A
21.A.016B (a) 4.		N/A
21.A.016B (b)	3.3, 3.4	☐
21.A.017A		N/A
21.A.017A (a)	3.2, 4.3, 5.5, 5.7 and Type Certification Basis	☐
21.A.017A (a) 1.		N/A
21.A.017A (a) 1. (i)		N/A
21.A.017A (a) 1. (ii)		N/A
21.A.017A (a) 2.		N/A
21.A.017A (a) 3.		N/A
21.A.017A (b)		N/A
21.A.017A (c)		N/A

UAEMAR	MDOE paragraph(s) and other documentation references	QM Validation
21.A.017A (d)	3.2, 4.3, 5.5, 5.7 and Type Certification Basis	☐
21.A.017A (e)		N/A
21.A.017B		N/A
21.A.018	1.8.2~~1.8.2~~, 3.5~~3.5~~, 4.2~~4.2~~ sub-para F, 4.2.2~~4.2.2~~ sub-para D, 5.5~~5.5~~, PART 7~~PART 7~~	☐
21.A.019	PART 4~~PART 4~~	☐
21.A.020		N/A
21.A.020 (a)	3.2, 4.3, 5.5	☐
21.A.020 (b)	3.3, 4.4, 5.6	☐
21.A.020 (c)	3.4, 4.5, 5.7	☐
21.A.020 (d)	3.5, 4.6, 5.8	☐
21.A.020 (e)	1.7.2, 3.5, 4.6, 5.8, 12.1.2, 12.2.2	☐
21.A.021		N/A
21.A.021 (a)		N/A
21.A.021 (b)		N/A
21.A.021 (c)		N/A
21.A.021 (c) 1.		N/A
21.A.021 (c) 2.		N/A
21.A.021 (c) 3.		N/A
21.A.021 (c) 4.		N/A
21.A.021 (d)		N/A
21.A.023		N/A
21.A.023 (a)		N/A
21.A.023 (a) 1.		N/A
21.A.023 (a) 2.		N/A
21.A.023 (b)		N/A
21.A.023 (b) 1.	1.8.3, PART 3~~PART 3~~	☐
21.A.023 (b) 2.	3.2, 4.3, 5.5	☐
21.A.031		N/A
21.A.031 (a)		N/A
21.A.031 (a) 1.	4.1, 6.3, 6.4, PART 9~~PART 9~~, PART 10~~PART 10~~, PART 12~~PART 12~~	☐
21.A.031 (a) 2.	PART 6~~PART 6~~, 9.1, 9.1.2	☐
21.A.031 (a) 3.	1.8.3, 3.2, 4.2.2, 4.3, 5.5, 11.2	☐

UAEMAR	MDOE paragraph(s) and other documentation references	QM Validation
21.A.031 (a) 4.	1.3.1, 1.8.2, 1.8.3, 3.2, 4.2, 4.3, 5.5	☐
21.A.031 (b)	PART 3~~PART 3~~, PART 4~~PART 4~~, 5.5, PART 6~~PART 6~~	☐
21.A.033		N/A
21.A.033 (a)	3.3, 4.4, 5.6, 7.3	☐
21.A.033 (b)		N/A
21.A.033 (b) 1.		N/A
21.A.033 (b) 1. (i)	PART 6~~PART 6~~, 7.3	☐
21.A.033 (b) 1. (ii)	PART 6~~PART 6~~, 7.3	☐
21.A.033 (b) 1. (iii)	7.3.2	☐
21.A.033 (b) 2.	7.3	☐
21.A.033 (c)	PART 7~~PART 7~~	☐
21.A.033 (d)	7.3.3	☐
21.A.033 (e)		N/A
21.A.033 (e) 1.	7.3.8	☐
21.A.033 (e) 2.		N/A
21.A.035		N/A
21.A.035 (a)	7.3.6, 8.1	☐
21.A.035 (b)		N/A
21.A.035 (b) 1.	3.4, 4.5, 5.7, 7.3	☐
21.A.035 (b) 2.	7.3	☐
21.A.035 (c)		N/A
21.A.035 (d)		N/A
21.A.035 (e)		N/A
21.A.035 (f)		N/A
21.A.035 (f) 1.	3.1, 3.3, 4.1, 4.2, 4.4, 4.6, 5.6, PART 7~~PART 7~~, PART 10~~PART 10~~	☐
21.A.035 (f) 2.	3.1, 3.3, 4.1, 4.2, 4.4, 4.6, 5.6, PART 7~~PART 7~~, PART 10~~PART 10~~	☐
21.A.041		N/A
21.A.042	1.1, 1.2, 1.3, 4.6, 5.8, PART 12~~PART 12~~	☐
21.A.044	1.1, 1.2, 1.3	☐
21.A.044 (a)		N/A
21.A.044 (b)		N/A
21.A.044 (c)		N/A

UAEMAR	MDOE paragraph(s) and other documentation references	QM Validation
21.A.047		N/A
21.A.051		N/A
21.A.051 (a)		N/A
21.A.051 (a) 1.		N/A
21.A.051 (a) 2.		N/A
21.A.051 (b)		N/A
21.A.051 (c)	1.1, 2.4, 11.3	☐
21.A.055	10.1	☐
21.A.057	11.1	☐
21.A.061		N/A
21.A.061 (a)	11.2	☐
21.A.061 (b)	11.2	☐
SUBPART C	**NOT APPLICABLE**	
SUBPART D	**CHANGES TO MILITARY TYPE CERTIFICATES AND MILITARY RESTRICTED TYPE CERTIFICATES**	
21.A.090		N/A
21.A.091	PART 4~~PART 4~~, 4.2	☐
21.A.092		N/A
21.A.092 (a)		N/A
21.A.092 (b)		N/A
21.A.093	PART 4~~PART 4~~, 4.1	☐
21.A.093 (a)		N/A
21.A.093 (a) 1.		N/A
21.A.093 (a) 2.		N/A
21.A.093 (b)		N/A
21.A.095	4.2.1, 4.2.1.1	☐
21.A.095 (a)		N/A
21.A.095 (b)		N/A
21.A.097		N/A
21.A.097 (a)	4.2.2	☐
21.A.097 (a) 1.		N/A
21.A.097 (a) 2.		N/A
21.A.097 (a) 3.		N/A

UAEMAR	MDOE paragraph(s) and other documentation references	QM Validation
21.A.097 (a) 4.		N/A
21.A.097 (a) 5.		N/A
21.A.097 (b)		N/A
21.A.101		N/A
21.A.101 (a)	3.2, 4.3, 5.5	☐
21.A.101 (b)	3.2, 4.3, 5.5	☐
21.A.101 (b) 1.		N/A
21.A.101 (b) 1. (i)		N/A
21.A.101 (b) 1. (ii)		N/A
21.A.101 (b) 2.		N/A
21.A.101 (b) 3.		N/A
21.A.101 (c)		N/A
21.A.101 (d)		N/A
21.A.101 (e)		N/A
21.A.101 (f)		N/A
21.A.103		N/A
21.A.103 (a)		N/A
21.A.103 (a) 1.		N/A
21.A.103 (a) 2.		N/A
21.A.103 (a) 2. (i)		N/A
21.A.103 (a) 2. (ii)		N/A
21.A.103 (a) 2. (iii)		N/A
21.A.103 (b)		N/A
21.A.105		N/A
21.A.105 (a)	10.1	☐
21.A.105 (b)	10.1	☐
21.A.107		N/A
21.A.107 (a)	PART 11~~PART 11~~, 11.2	☐
21.A.107 (b)	PART 11~~PART 11~~, 11.2	☐
21.A.109		N/A
21.A.109 (a)	1.1, 1.3	☐
21.A.109 (b)	6.4.1	☐
SUBPART E	**MILITARY SUPPLEMENTAL TYPE CERTIFICATES**	

UAEMAR	MDOE paragraph(s) and other documentation references	QM Validation
21.A.111		N/A
21.A.112A		N/A
21.A.112B		N/A
21.A.112B (a)	MDOA	☐
21.A.112B (b)	MAA Agreement	☐
21.A.112B (c)	UAE Government / MAA Agreements	☐
21.A.113		N/A
21.A.113 (a)	4.3	☐
21.A.113 (b)	4.3	☐
21.A.114	4.5, 4.6, 5.7, 5.8	☐
21.A.115		N/A
21.A.115 (a)		N/A
21.A.115 (b)		N/A
21.A.115 (c)		N/A
21.A.115 (c) 1.		N/A
21.A.115 (c) 2.		N/A
21.A.116	Transferee Organisation MDOA (as applicable)	☐
21.A.117		N/A
21.A.117 (a)	PART 4~~PART 4~~, 4.2	☐
21.A.117 (b)	PART 4~~PART 4~~, 4.2	☐
21.A.117 (c)	PART 4~~PART 4~~, 4.2	☐
21.A.118A		N/A
21.A.118A (a)		N/A
21.A.118A (a) 1.	1.8.2	☐
21.A.118A (a) 2.	1.8.2	☐
21.A.118A (b)	6.4.1	☐
21.A.118B		N/A
21.A.118B (a)		N/A
21.A.118B (a) 1.		N/A
21.A.118B (a) 2.		N/A
21.A.118B (b)		N/A
21.A.118B (c)	1.1, 2.4, 11.3	☐
21.A.119	11.1	☐

UAEMAR	MDOE paragraph(s) and other documentation references	QM Validation
21.A.120		N/A
21.A.120 (a)	PART 11~~PART 11~~, 11.2	☐
21.A.120 (b)	PART 11~~PART 11~~, 11.2	☐
SUBPART F	**PRODUCTION WITHOUT MILITARY PRODUCTION ORGANISATION APPROVAL**	
21.A.121		N/A
21.A.121 (a)		N/A
21.A.121 (b)		N/A
21.A.122		N/A
21.A.122 (a)		N/A
21.A.122 (b)		N/A
21.A.124		N/A
21.A.124 (a)		N
21.A.124 (b)		N/A
21.A.124 (b) 1.		N/A
21.A.124 (b) 1. (i)		N/A
21.A.124 (b) 1. (ii)		N/A
21.A.124 (b) 2.		N/A
21.A.125A		N/A
21.A.125A (a)		N
21.A.125A (b)		N/A
21.A.125A (b) 1.		N
21.A.125A (b) 2.		N
21.A.125A (b) 3.		N
21.A.125A (c)		N
21.A.125B		N/A
21.A.125B (a)		N/A
21.A.125B (a) 1.		N/A
21.A.125B (a) 2.		N/A
21.A.125B (b)		N/A
21.A.125B (c)		N/A
21.A.125B (c) 1.		N/A
21.A.125B (c) 2.		N/A
21.A.125B (c) 3.		N/A

21.A.125B (d)		N/A
21.A.125C		N/A
21.A.125C (a)		N/A
21.A.125C (a) 1.		N/A
21.A.125C (a) 2.		N/A
21.A.125C (a) 3.		N/A
21.A.125C (a) 4.		N/A
21.A.125C (b)		N/A
21.A.126		N/A
21.A.126 (a)		N
21.A.126 (a) 1.		N/A
21.A.126 (a) 2.		N/A
21.A.126 (a) 3.		N/A
21.A.126 (a) 4.		N/A
21.A.126 (b)		N
21.A.126 (b) 1.		N/A
21.A.126 (b) 2.		N/A
21.A.126 (b) 3.		N/A
21.A.126 (b) 4.		N/A
21.A.126 (b) 5.		N/A
21.A.126 (b) 6.		N/A
21.A.127		N/A
21.A.127 (a)		N
21.A.127 (b)		N
21.A.127 (b) 1.		N/A
21.A.127 (b) 2.		N/A
21.A.127 (b) 3.		N/A
21.A.127 (b) 4.		N/A
21.A.127 (b) 5.		N/A
21.A.127 (b) 6.		N/A
21.A.128		N
21.A.129		N
21.A.129 (a)		N/A
21.A.129 (b)		N/A

21.A.129 (c)		N/A
21.A.129 (d)		N/A
21.A.129 (e)		N
21.A.129 (f)		N/A
21.A.129 (f) 1.		N/A
21.A.129 (f) 2.		N
21.A.129 (f) 3.		N
21.A.130		N/A
21.A.130 (a)		N
21.A.130 (b)		N/A
21.A.130 (b) 1.		N/A
21.A.130 (b) 2.		N/A
21.A.130 (b) 3.		N/A
21.A.130 (b) 4.		N/A
21.A.130 (c)		N
21.A.130 (c) 1.		N/A
21.A.130 (c) 2.		N/A
21.A.130 (c) 3.		N/A
21.A.130 (d)		N
SUBPART G	**MILITARY PRODUCTION ORGANISATION APPROVAL**	
21.A.131		N/A
21.A.131 (a)		N/A
21.A.131 (b)		N/A
21.A.133		N/A
21.A.133 (a)		N/A
21.A.133 (b)		N/A
21.A.133 (c)		N/A
21.A.134		N
21.A.135		N/A
21.A.139		N/A
21.A.139 (a)		N
21.A.139 (b)		N/A
21.A.139 (b) 1.		N/A
21.A.139 (b) 1. (i)		N

21.A.139 (b) 1. (ii)		N
21.A.139 (b) 1. (iii)		N
21.A.139 (b) 1. (iv)		N
21.A.139 (b) 1. (v)		N
21.A.139 (b) 1. (vi)		N
21.A.139 (b) 1. (vii)		N
21.A.139 (b) 1. (viii)		N
21.A.139 (b) 1. (ix)		N
21.A.139 (b) 1. (x)		N
21.A.139 (b) 1. (xi)		N
21.A.139 (b) 1. (xii)		N
21.A.139 (b) 1. (xiii)		N
21.A.139 (b) 1. (xiv)		N
21.A.139 (b) 1. (xv)		N
21.A.139 (b) 1. (xvi)		N
21.A.139 (b) 1. (xvii)		N
21.A.139 (b) 2.		N
21.A.143		N/A
21.A.143 (a)		N/A
21.A.143 (a) 01.		N
21.A.143 (a) 02.		N
21.A.143 (a) 03.		N
21.A.143 (a) 04.		N
21.A.143 (a) 05.		N
21.A.143 (a) 06.		N
21.A.143 (a) 07.		N
21.A.143 (a) 08.		N
21.A.143 (a) 09.		N
21.A.143 (a) 10.		N
21.A.143 (a) 11.		N
21.A.143 (a) 12.		N
21.A.143 (a) 13.		N
21.A.143 (b)		N
21.A.143 (c)		N

21.A.145		N
21.A.145 (a)		N
21.A.145 (b)		N/A
21.A.145 (b) 1.		N
21.A.145 (b) 2.		N
21.A.145 (b) 3.		N
21.A.145 (c)		N/A
21.A.145 (c) 1.		N
21.A.145 (c) 2.		N
21.A.145 (c) 3.		N
21.A.145 (d)		N/A
21.A.145 (d) 1.		N
21.A.145 (d) 2.		N
21.A.145 (d) 3.		N
21.A.147		N/A
21.A.147 (a)		N
21.A.147 (b)		N/A
21.A.148		N
21.A.149		N
21.A.151		N
21.A.153		N
21.A.157		N
21.A.158		N/A
21.A.158 (a)		N
21.A.158 (a) 1.		N/A
21.A.158 (a) 2.		N/A
21.A.158 (b)		N/A
21.A.158 (c)		N/A
21.A.158 (c) 1.		N/A
21.A.158 (c) 2.		N/A
21.A.158 (c) 3.		N/A
21.A.158 (d)		N/A
21.A.159		N/A
21.A.159 (a)		N/A

21.A.159 (a) 1.		N/A
21.A.159 (a) 2.		N/A
21.A.159 (a) 3.		N/A
21.A.159 (a) 4.		N/A
21.A.159 (a) 5.		N/A
21.A.159 (a) 6.		N/A
21.A.159 (b)		N/A
21.A.163		N/A
21.A.163 (a)		N
21.A.163 (b)		N
21.A.163 (c)		N
21.A.163 (d)		N
21.A.163 (e)		N
21.A.165		N
21.A.165 (a)		N
21.A.165 (b)		N
21.A.165 (c)		N/A
21.A.165 (c) 1.		N
21.A.165 (c) 2.		N
21.A.165 (c) 3.		N
21.A.165 (c) 4.		N
21.A.165 (d)		N
21.A.165 (e)		N
21.A.165 (f)		N/A
21.A.165 (f) 1.		N
21.A.165 (f) 2.		N
21.A.165 (f) 3.		N
21.A.165 (g)		N
21.A.165 (h)		N
21.A.165 (i)		N
21.A.165 (j)		N
21.A.165 (k)		N
SUBPART H	**MILITARY CERTIFICATES OF AIRWORTHINESS AND MILITARY RESTRICTED CERTIFICATES OF AIRWORTHINESS**	

21.A.171		N/A
21.A.172		N/A
21.A.173		N/A
21.A.173 (a)		N/A
21.A.173 (b)		N/A
21.A.173 (b) 1.		N/A
21.A.173 (b) 2.		N/A
21.A.174		N/A
21.A.174 (a)	UAEMAR Form 25a	☐
21.A.174 (b)		N/A
21.A.174 (b) 1.		N/A
21.A.174 (b) 2.		N/A
21.A.174 (b) 2. (i)		N/A
21.A.174 (b) 2. (ii)		N/A
21.A.174 (b) 2. (iii)		N/A
21.A.174 (b) 3.		N/A
21.A.174 (b) 3. (i)		N/A
21.A.174 (b) 3. (ii)		N/A
21.A.174 (c)		N/A
21.A.175	Certification Basis (English language)	☐
21.A.177		N/A
21.A.179		N/A
21.A.179 (a)		N/A
21.A.179 (a) 1.		N/A
21.A.179 (a) 2.		N/A
21.A.179 (a) 2. (i)		N/A
21.A.179 (a) 2. (ii)		N/A
21.A.179 (b)		N/A
21.A.180	MAA Compliance Oversight Program, 1.8.3, 7.3	☐
21.A.181		N/A
21.A.181 (a)		N/A
21.A.181 (a) 1.		N/A
21.A.181 (a) 2.		N/A
21.A.181 (a) 3.		N/A

21.A.181 (a) 4.		N/A
21.A.181 (a) 5.		N/A
21.A.181 (b)		N/A
21.A.182	Aircraft Military Register, 6.4.1	☐
SUBPART I	**NOISE CERTIFICATES**	
SUBPART J	**MILITARY DESIGN ORGANISATION APPROVAL**	
21.A.231		N/A
21.A.233		N/A
21.A.233 (a)		N/A
21.A.233 (b)		N/A
21.A.234	UAEMAR Form 80	☐
21.A.235		N/A
21.A.239		N/A
21.A.239 (a)	1.3, 1.8, 2.1, 12.1.2	☐
21.A.239 (a) 1.	3.2, PART 7~~PART 7~~	☐
21.A.239 (a) 2.	1.1, 1.8.2	☐
21.A.239 (a) 2. (i)		N/A
21.A.239 (a) 2. (ii)		N/A
21.A.239 (a) 3.	PART 2	☐
21.A.239 (b)	PART 2	☐
21.A.239 (c)	1.3	☐
21.A.239 (d)	1.1, PART 2, 11.3, SMS	☐
21.A.243		N/A
21.A.243 (a)	1.1, 1.2, 1.5, PART 12	☐
21.A.243 (a) 1.	7.3	☐
21.A.243 (b)	1.3, 1.5, PART 12	☐
21.A.243 (c)	1.1, 1.2, 1.3	☐
21.A.243 (d)	1.7, 1.8, 1.9	☐
21.A.243 (e)	1.1, SMS	☐
21.A.245		N/A
21.A.245 (a)	0~~1.6~~, 1.7	☐
21.A.245 (b)	1.5, 0~~1.6~~, 1.7, 1.8, 1.9, PART 6~~PART 6~~, PART 9~~PART 9~~	☐
21.A.247	1.3, UAEMAR Form 82	☐

21.A.249		N/A
21.A.251		N/A
21.A.253	1.2, 1.3, 1.8.2, PART 12, UAEMAR Form 82	☐
21.A.257		N/A
21.A.257 (a)	7.3, 11.3, PART 12	☐
21.A.257 (b)	7.3	☐
21.A.258		N/A
21.A.258 (a)	2.4, PART 12	☐
21.A.258 (a) 1.		N/A
21.A.258 (a) 2.		N/A
21.A.258 (b)		N/A
21.A.258 (c)		N/A
21.A.258 (c) 1.	1.8, PART 2	☐
21.A.258 (c) 2.	1.8, PART 2	☐
21.A.258 (c) 3.	1.8, PART 2	☐
21.A.258 (d)	1.8, PART 2	☐
21.A.259		N/A
21.A.259 (a)		N/A
21.A.259 (a) 1.		N/A
21.A.259 (a) 2.		N/A
21.A.259 (a) 3.		N/A
21.A.259 (a) 4.		N/A
21.A.259 (b)		N/A
21.A.263		N/A
21.A.263 (a)		N/A
21.A.263 (b)		N/A
21.A.263 (b) 1.		N/A
21.A.263 (b) 2.		N/A
21.A.263 (b) 3.		N/A
21.A.263 (b) 4.		N/A
21.A.263 (b) 5.		N/A
21.A.263 (c)		N/A
21.A.263 (c) 1.		N/A
21.A.263 (c) 2.		N/A

21.A.263 (c) 3.		N/A
21.A.263 (c) 4.		N/A
21.A.263 (c) 5.		N/A
21.A.263 (c) 6.		N/A
21.A.263 (c) 7.		N/A
21.A.263 (d)		N/A
21.A.263 (d) 1.		N/A
21.A.263 (d) 1. (i)		N/A
21.A.263 (d) 1. (ii)		N/A
21.A.263 (d) 1. (iii)		N/A
21.A.263 (d) 1. (iv)		N/A
21.A.263 (d) 2.		N/A
21.A.263 (d) 2. (i)		N/A
21.A.263 (d) 2. (ii)		N/A
21.A.263 (d) 2. (iii)		N/A
21.A.265	1.8.2	☐
21.A.265 (a)		N/A
21.A.265 (b)		N/A
21.A.265 (c)		N/A
21.A.265 (d)		N/A
21.A.265 (e)		N/A
21.A.265 (f)		N/A
21.A.265 (g)		N/A
SUBPART K	**PARTS AND APPLIANCES**	
21.A.301		N/A
21.A.303	1.7.2, 3.4, 3.5, 7.1	☐
21.A.303 (a)		N/A
21.A.303 (b)		N/A
21.A.303 (c)		N/A
21.A.303 (d)		N/A
21.A.305	3.1, 3.4, 4.7, 5.8	☐
21.A.307	PART 11	☐
21.A.307 (a)	PART 6, 9.1	☐
21.A.307 (b)		N/A

21.A.307 (c)	PART 6	☐
SUBPART L	**NOT APPLICABLE**	
SUBPART M	**REPAIRS**	
21.A.431		N/A
21.A.431 (a)		N/A
21.A.431 (b)		N/A
21.A.431 (c)		N/A
21.A.431 (d)		N/A
21.A.432A		N/A
21.A.432A (a)		N/A
21.A.432A (b)		N/A
21.A.432B		N/A
21.A.432B (a)	Explanatory Statement, MDOA Certificate	☐
21.A.432B (b)	PART 6, PART 12, MAA Approval Agreement	☐
21.A.432B (c)	Government / MAA Approval Agreement	☐
21.A.433		N/A
21.A.433 (a)		N/A
21.A.433 (a) 1.	5.7	☐
21.A.433 (a) 2.	5.1, 5.2, 7.3	☐
21.A.433 (a) 3.	5.8	☐
21.A.433 (b)	Type Certificate Holder Agreement	☐
21.A.435		N/A
21.A.435 (a)	5.4	☐
21.A.435 (b)		N/A
21.A.435 (b) 1.		N/A
21.A.435 (b) 2.		N/A
21.A.437	5.9	☐
21.A.437 (a)		N/A
21.A.437 (b)		N/A
21.A.437 (c)		N/A
21.A.439	9.1	☐
21.A.439 (a)		N/A
21.A.439 (b)		N/A
21.A.439 (c)		N/A

21.A.441		N/A
21.A.441 (a)		N/A
21.A.441 (b)	9.1	☐
21.A.443	9.1, PART 10	☐
21.A.445		N/A
21.A.445 (a)		N/A
21.A.445 (a) 1.		N/A
21.A.445 (a) 2.	5.3, MDOA Certificate	☐
21.A.445 (b)	5.3	☐
21.A.447		N/A
21.A.447 (a)	10.1	☐
21.A.447 (b)	10.1	☐
21.A.449		N/A
21.A.449 (a)	1.8.3	☐
21.A.449 (b)	PART 10	☐
21.A.451		N/A
21.A.451 (a)	1.3, PART 5, 6.4.1	☐
21.A.451 (a) 1.		N/A
21.A.451 (a) 1. (i)		N/A
21.A.451 (a) 1. (ii)		N/A
21.A.451 (a) 2.		N/A
21.A.451 (b)		N/A
21.A.451 (b) 1.	1.3, 1.8, PART 5	☐
21.A.451 (b) 2.	6.4.1	☐
SUBPART N	**NOT APPLICABLE**	
SUBPART O	**UAE MILITARY TECHNICAL STANDARD ORDER AUTHORISATIONS**	
21.A.601		N/A
21.A.602A		N/A
21.A.602B		N/A
21.A.602B (a)	1.1, MDOA Certificate	☐
21.A.602B (b)		N/A
21.A.602B (b) 1.	MDOA Certificate	☐
21.A.602B (b) 2.	MDOA Certificate	☐

21.A.603		N/A
21.A.603 (a)	UAEMAR Form 34	☐
21.A.603 (b)	UAEMAR Form 34	☐
21.A.604		N/A
21.A.604 (a)	UAEMAR Form 34	☐
21.A.604 (b)		N/A
21.A.604 (c)		N/A
21.A.605		N/A
21.A.605 (a)		N/A
21.A.605 (b)		N/A
21.A.605 (c)		N/A
21.A.605 (d)		N/A
21.A.605 (e)		N/A
21.A.605 (f)		N/A
21.A.606		N/A
21.A.606 (a)		N/A
21.A.606 (b)		N/A
21.A.606 (c)		N/A
21.A.607		N/A
21.A.608		N/A
21.A.608 (a)	PART 5, PART 6, PART 7, 9.1, PART 11, UAEMAR Form DDP	☐
21.A.608 (a) 1.		N/A
21.A.608 (a) 2.		N/A
21.A.608 (a) 3.		N/A
21.A.608 (a) 4.		N/A
21.A.608 (a) 5.		N/A
21.A.608 (a) 6.		N/A
21.A.608 (a) 7.		N/A
21.A.608 (b)		N/A
21.A.609	9.1, 11.1, 12.1	☐
21.A.609 (a)		N/A
21.A.609 (b)		N/A
21.A.609 (c)		N/A
21.A.609 (d)		N/A

21.A.609 (e)		N/A
21.A.609 (f)		N/A
21.A.609 (g)		N/A
21.A.610		N/A
21.A.610 (a)	1.9, PART 4, 9.1, 9.1.2, 9.2	☐
21.A.610 (b)	1.9, PART 4, PART 9	☐
21.A.611		N/A
21.A.611 (a)	1.3.1, 1.8.3, 1.9, PART 4	☐
21.A.611 (b)	4.2	☐
21.A.611 (c)		N/A
21.A.613	10.1	☐
21.A.615	7.3	☐
21.A.615 (a)		N/A
21.A.615 (b)		N/A
21.A.619		N/A
21.A.619 (a)		N/A
21.A.619 (a) 1.		N/A
21.A.619 (a) 2.		N/A
21.A.619 (a) 3.		N/A
21.A.619 (a) 4.		N/A
21.A.619 (b)		N/A
21.A.621		N/A
SUBPART P	**MILITARY PERMIT TO FLY**	
21.A.701		N/A
21.A.701 (a)	PART 8	☐
21.A.701 (a) 01.		N/A
21.A.701 (a) 02.		N/A
21.A.701 (a) 03.		N/A
21.A.701 (a) 04.		N/A
21.A.701 (a) 05.		N/A
21.A.701 (a) 06.		N/A
21.A.701 (a) 07.		N/A
21.A.701 (a) 08.		N/A
21.A.701 (a) 09.		N/A

21.A.701 (a) 10.		N/A
21.A.701 (a) 11.		N/A
21.A.701 (a) 12.		N/A
21.A.701 (a) 13.		N/A
21.A.701 (a) 14.		N/A
21.A.701 (a) 15.		N/A
21.A.701 (b)		N/A
21.A.703		N/A
21.A.703 (a)		N/A
21.A.703 (b)		N/A
21.A.703 (c)		N/A
21.A.705		N/A
21.A.707		N/A
21.A.707 (a)	8.2, UAEMAR Form 21	☐
21.A.707 (b)		N/A
21.A.707 (b) 1.		N/A
21.A.707 (b) 2.		N/A
21.A.707 (b) 3.		N/A
21.A.707 (c)		N/A
21.A.708	8.1	☐
21.A.708 (a)		N/A
21.A.708 (b)		N/A
21.A.708 (b) 1.		N/A
21.A.708 (b) 2.		N/A
21.A.708 (b) 3.		N/A
21.A.708 (b) 4.		N/A
21.A.708 (b) 5.		N/A
21.A.708 (b) 6.		N/A
21.A.708 (c)		N/A
21.A.708 (d)		N/A
21.A.709		N/A
21.A.709 (a)	8.1, UAEMAR Form 18a	☐
21.A.709 (b)		N/A
21.A.709 (b) 1.		N/A

21.A.709 (b) 2.		N/A
21.A.709 (b) 3.		N/A
21.A.710		N/A
21.A.710 (a)	8.1, UAEMAR Form 18b	☐
21.A.710 (a) 1.		N/A
21.A.710 (a) 2.		N/A
21.A.710 (b)		N/A
21.A.710 (c)		N/A
21.A.711		N/A
21.A.711 (a)		N/A
21.A.711 (a) 1.		N/A
21.A.711 (a) 2.		N/A
21.A.711 (a) 3.		N/A
21.A.711 (b)		N/A
21.A.711 (c)		N/A
21.A.711 (d)		N/A
21.A.711 (e)		N/A
21.A.711 (f)	8.2	☐
21.A.711 (g)	8.1, PART 11	☐
21.A.713		N/A
21.A.713 (a)	8.1, UAEMAR Form 18a, UAEMAR Form 18b	☐
21.A.713 (b)		N/A
21.A.715	Certification Basis (English language)	☐
21.A.719	8.2	☐
21.A.721	7.3.2, 8.2	☐
21.A.723		N/A
21.A.723 (a)		N/A
21.A.723 (a) 1.		N/A
21.A.723 (a) 2.		N/A
21.A.723 (a) 3.		N/A
21.A.723 (b)		N/A
21.A.723 (c)		N/A
21.A.725		N/A
21.A.727	PART 8, PART 11	☐

21.A.729		N/A
21.A.729 (a)	8.1, 10.1	☐
21.A.729 (b)	PART 8, 10.1, PART 11	☐
SUBPART Q	**IDENTIFICATION OF PRODUCTS, PARTS AND APPLIANCES**	
21.A.801		N/A
21.A.801 (a)	6.4.1	☐
21.A.801 (a) 1.		N/A
21.A.801 (a) 2.		N/A
21.A.801 (a) 3.		N/A
21.A.801 (a) 4.		N/A
21.A.801 (b)	6.4.1	☐
21.A.801 (c)	6.4.1	☐
21.A.801 (d)		N/A
21.A.803		N/A
21.A.803 (a)	6.4	☐
21.A.803 (b)	6.4	☐
21.A.803 (c)		N/A
21.A.803 (c) 1.	6.4	☐
21.A.803 (c) 2.	6.4	☐
21.A.803 (d)		N/A
21.A.804		N/A
21.A.804 (a)	6.4	☐
21.A.804 (a) 1.		N/A
21.A.804 (a) 2.		N/A
21.A.804 (a) 3.		N/A
21.A.804 (b)		N/A
21.A.805	6.4	☐
21.A.807		N/A
21.A.807 (a)	6.4	☐
21.A.807 (a) 1.		N/A
21.A.807 (a) 2.		N/A
21.A.807 (a) 3.		N/A
21.A.807 (a) 4.		N/A
21.A.807 (b)		N/A

21.A.807 (c)	6.4	☐

TABLE OF CHANGES

All amended paragraphs are indicated by the use of a ‘sidebar’ in the margin. This can be readily cross-referenced using this table which details each change.

Nomenclature Used:

Additions to the text are tabulated below in green. Deletions of text are indicated by the use of ►◄. In both cases, the reason for the difference is clarified in the ‘notes’ column’.

Paragraph	Sub-para	MDOE Example and Guidelines Edition 1.0 wording	MDOE Example and Guidelines Edition 1.1 wording	Notes