CIVIL AVIATION DIRECTIVE – 8107

VALIDATION TO A TYPE CERTIFICATE

CAAM PART 21 SUBPART B–1

CIVIL AVIATION AUTHORITY OF MALAYSIA

ISSUE 01
REVISION 00 – 1ST MAY 2021

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Introduction

In exercise of the powers conferred by regulations 24O of the Civil Aviation Act 1969 [Act 3], the Chief Executive Officer Makes this Civil Aviation Directive (CAD) 8107 – Validation to a Type Certificate (CAAM Part 21 Subpart B-1), pursuant to Regulation 23, 189 and 193 of the Malaysia Civil Aviation Regulation (MCAR) 2016.

This CAD provides the procedure for a validation to a type certificate and establishes the rights and obligations of the applicants for, and holders of, those approvals and for any matters connected therewith.

This CAD 8107 – Validation to A Type Certificate (CAAM Part 21 Subpart B-1) is published by the Chief Executive Officer under section 24O of the Civil Aviation Act 1969 [*Act 3*] and come into operation on 1st May 2021.

Non-compliance with this CAD

Any person who contravenes any provision in this CAD commits an offence and shall on conviction be liable to the punishment under section 24O of the Civil Aviation Act 1969 [*Act 3*] and/or under Malaysia Civil Aviation Regulation 2016.

(Captain Chester Voo Chee Soon)
Chief Executive Officer
Civil Aviation Authority of Malaysia

Civil Aviation Directive components and Editorial practices

This Civil Aviation Directive is made up of the following components and are defined as follows:

Standards: Usually preceded by words such as *"shall"* or *"must"*, are any specification for physical characteristics, configuration, performance, personnel or procedure, where uniform application is necessary for the safety or regularity of air navigation and to which Operators must conform. In the event of impossibility of compliance, notification to the CAAM is compulsory.

Recommended Practices: Usually preceded by the words such as "*should"* or "*may*", are any specification for physical characteristics, configuration, performance, personnel or procedure, where the uniform application is desirable in the interest of safety, regularity or efficiency of air navigation, and to which Operators will endeavour to conform.

Definitions: Terms used in the Standards and Recommended Practices which are not self-explanatory in that they do not have accepted dictionary meanings. A definition does not have an independent status but is an essential part of each Standard and Recommended Practice in which the term is used, since a change in the meaning of the term would affect the specification.

Tables and Figures: These add to or illustrate a Standard or Recommended Practice and which are referred to therein, form part of the associated Standard or Recommended Practice and have the same status.

Notes: Included in the text, where appropriate, Notes give factual information or references bearing on the Standards or Recommended Practices in question but not constituting part of the Standards or Recommended Practices;

Attachments: Material supplementary to the Standards and Recommended Practices or included as a guide to their application.

It is to be noted that some Standards in this Civil Aviation Directive incorporates, by reference, other specifications having the status of Recommended Practices. In such cases, the text of the Recommended Practice becomes part of the Standard.

The units of measurement used in this document are in accordance with the International System of Units (SI) as specified in CAD 5. Where CAD 5 permits the use of non-SI alternative units, these are shown in parentheses following the basic units. Where two sets of units are quoted it must not be assumed that the pairs of values are equal and interchangeable. It may, however, be inferred that an equivalent level of safety is achieved when either set of units is used exclusively.

Any reference to a portion of this document, which is identified by a number and/or title, includes all subdivisions of that portion.

Throughout this Civil Aviation Directive, the use of the male gender should be understood to include male and female persons.

Record of revisions

Revisions to this CAD shall be made by authorised personnel only. After inserting the revision, enter the required data in the revision sheet below. The *'Initials'* has to be signed off by the personnel responsible for the change.

Rev No.	Revision Date	Revision Details	Initials

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1 General

1.1 Citation

1.1.1 This Directives are the Civil Aviation Directives 8107 – Validation to a Type Certificate (CAAM Part 21 Subpart B-1) [CAD 8107], Issue 01/Revision 00, and comes into operation on 1st May 2021.

1.1.2 This CAD 8107 – Validation to a Type Certificate (CAAM Part 21 Subpart B-1), Issue 01/Revision 00 will remain current until withdrawn or superseded.

1.2 Applicability

1.2.1 This CAD shall be applicable to a holder of a foreign type certificate.

1.3 Revocation

1.3.1 This CAD, revokes Airworthiness Notice 8107 issue 1 dated 19 July 2019.

1.4 Definition

1.4.1 In this CAD, unless the context otherwise requires:

CAAM means the Civil Aviation Authority of Malaysia;

certifying authority means foreign authority or agency that is responsible for issuing a type certificate;

EASA means European Aviation Safety Agency;

FAA means Federal Aviation Administration of the United States of America;

first of type means aeronautical product which never been validated by CAAM and in the case of an aircraft, its type or model that is to be entered in the Malaysian Aircraft Register for the first time;

letter of validation means a letter of validation issued by CAAM to a foreign type certificate under regulation 23 of the MCAR; and

MCAR means Civil Aviation Regulations 2016;

2 Application

2.1 CAAM may issue validation to any category of Type Certificate if CAAM is satisfied that the applicant has fulfilled the following requirements—

a) the aeronautical product is a first of type;

b) there is an evidence of need by Malaysian operator to have the aircraft type to be registered in Malaysia;

c) the airworthiness design code used for the product certification is as prescribed by FAA, EASA or any equivalent design code prescribed by any certifying authority familiar to CAAM.

d) the aeronautical product holds FAA type certificate or EASA type certificate or type certificate issued by any certifying authorities familiar to CAAM;

e) through certifying authority, submission of an application form CAAM/AW/8107-01 together with the data as stated in paragraph 3 of this CAD to CAAM and accompanied by the prescribed fee; and

f) CAAM is satisfied that the applicant's safety management system is established, and;

g) any other requirements as specified in this CAD.

2.2 Aeronautical product which holds foreign type certificate may not be required to hold a certificate of validation if —

a) in the case of aircraft including its engine and propellers, hold or has held Malaysian Certificate of Airworthiness; or

b) in the case of aircraft engines and propellers, CAAM is familiar with the certification system of the State of Design and which the product have been determined by CAAM not to have any novel or unusual design features or material.

3 Data

3.1 The applicant shall submit the following data to CAAM:

a) type certificate;

b) Type Certificate Data Sheet;

c) special conditions, exemptions, deviations, equivalent level of safety by the State of Design;

d) Flight Manual including the supplements or equivalent document;

e) Maintenance Data (Airworthiness Limitations);

f) Proposed schedule and agenda for on-site visit as per validation agenda template specified in Appendix 1; and

g) any other data as may be requested by CAAM.

4 Type Validation Process

4.1 CAAM shall conduct technical assessment or design investigation taking into account the product design, construction, modification standard and original certifications basis, to establish that a level of airworthiness equivalent to that provided by CAAM airworthiness standards has been met. Compliance with design related operational requirements will also be investigated.

4.2 For the purpose of paragraph 4.1 of this CAD, the applicant shall:

a) submit declaration of compliance against design related requirements as determined by CAAM; and

b) allow CAAM to conduct on-site visit to the applicant premises and facilities and bear any expense incurred by reason of anything done or incidental to the on-site visit.

4.3 CAAM may issue a Certification Review Paper (CRP) for any significant issue related to the certification of the design or compliance to CAAM's additional requirements. The applicant shall provide response to give effect to the CRP.

4.4 As a result of the technical assessment or design investigation, CAAM may imposed additional requirements or special conditions and the certifying authority may be asked to certify that compliance with such additional requirements or special conditions.

4.5 CAAM may conduct a more in-depth technical assessment or design investigation If CAAM is not familiar with the certifying authority certification system.

5 Importing requirements

5.1 The holder of certificate of validation shall comply with the design related airworthiness and operational requirements as determined by CAAM.

6 Post-validation support

6.1 The holder of the certificate of validation shall notify CAAM if there is any major significant changes to the type certificate before the aircraft of the same type/model is imported into Malaysia.

6.2 For the purpose of paragraph 6.1, CAAM may conduct a design investigation on the major significant changes.

6.3 The holder of the certificate of validation shall provide continuing airworthiness data including updates to CAAM via an undertaking in writing.

NOTE: The holder of the certificate of validation should provide adequate access to the documents related to the airworthiness of aircraft on the Malaysian aircraft register.

7 Training

7.1 The applicant shall provide relevant training to CAAM to support the continuing airworthiness of the aircraft.

7.2 The training shall be provided in advance prior to the first aircraft entry in Aircraft Register.

APPENDIX 1 – Validation Agenda Template

1.0 DESIGN ORGANISATION AND PRODUCTION ORGANISATION OVERVIEW

2.0 TECHNICAL REVIEW

2.1 Aircraft Design

(a) Structures

(b) Performance / Handling Characteristics

(c) Powerplant / Fuel Systems / APU / Engine Intermixing (if applicable)

(d) Flight Controls Systems

(e) Mechanical / Hydraulic Systems

(f) Avionics / Electrical Systems / HIRF / EMI / EWIS

(g) Airborne Software

(h) Environmental Control Systems

(i) Cabin Interiors / Crashworthiness

(j) Any other design features peculiar to the type

(k) Specific technical subject such as flutter, fatigue evaluation, ditching, underslung / hoisting system and night vision etc

2.2 Aircraft Operations

(a) Flight Manual

(b) Operational Approval (Airworthiness) - ETOPS, RVSM, RNP etc (as applicable)

3.0 CERTIFICATION BASIS REVIEW

3.1 Airworthiness Codes

3.2 Environmental & Noise

3.3 Special Conditions

3.4 Equivalent Level of Safety

3.5 Exemptions / Deviations

3.6 Operational Suitability Data (OSD)

4.0 COMPLIANCE TO MALAYSIAN REGULATIONS AND CIVIL AVIATION DIRECTIVES (DESIGN RELATED)

5.0 CONTINUING AIRWORTHINESS

5.1 Instructions for Continued Airworthiness

5.2 OEM-Approved Data for Repairs / Modifications

6.0 DEMO FLIGHT (Optional)

7.0 VISIT TO FINAL ASSEMBLY LINE (Optional)

8.0 POST TYPE CERTIFICATE VALIDATION ACTIVITIES

8.1 Major signifant changes to type design

Note: The above are typical areas to be covered, but it is not limited to, depending on the type design of the product.