

Advisory Circular

WORKING ARRANGEMENT BETWEEN EASA AND CAAS ON AIRWORTHINESS CERTIFICATION – IMPLEMENTATION PROCEDURES

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- 1. **GENERAL.** Pursuant to paragraph 88B of the Air Navigation Order (ANO), the Director-General of the Civil Aviation Authority of Singapore (DGCA) may, from time to time, issue advisory circulars (ACs) on any aspect of safety in civil aviation. This AC contains information about standards, practices and procedures acceptable to CAAS. The revision number of the AC is indicated in parenthesis in the suffix of the AC number.
- 2. PURPOSE. This AC is issued to provide information and guidance relating to the Working Arrangement on Airworthiness Certification between the European Aviation Safety Agency (EASA) and the CAAS, hereinafter referred to as the "WA-AC". This document provides procedures for the issuance of design approvals and certificates to be recognised under the terms of the WA-AC.
- 3. APPLICABILITY. This AC applies to:
 - (a) a holder of a Design Organisation Approval (DOA) issued under Singapore Airworthiness Requirements (SAR-21) who is located in Singapore and intends to perform work under the WA-AC; and
 - (b) a holder of a EASA Part 21 DOA issued by EASA who is located within the European Union (EU), Switzerland, Norway, Iceland and Lichtenstein and intends to apply for CAAS validation of EASA minor change approval or minor design repair approval.
- 4. CANCELLATION. This is the first AC issued on this subject.
- **5. EFFECTIVE DATE.** This AC is effective on 24 November 2017.
- **6. REFERENCES.** SAR Part-21; Commission Regulation (EU) No 748/2012; Working Arrangement between the EASA and the CAAS on Airworthiness Certification.

BACKGROUND.

- 7.1 To facilitate the recognition of approvals issued by EASA and CAAS beyond its territories, CAAS and EASA signed a WA-AC on the 13 July 2017. The WA-AC provides for the validation and acceptance of design and production approvals and certificates of the approved organisations:
 - (a) by EASA and located within Member States of the European Union, Switzerland, Norway, Iceland and Lichtenstein; and
 - (b) by CAAS and located within Singapore.
- 7.2 The design approvals and certificates covered under the WA-AC are Type Certificate (TC), Supplemental Type Certificate (STC), Major Repair Design Approval (RDA), Minor Change Approval, Minor RDA and Approvals for European / Singapore Technical Standard Order. This AC spells out the procedures for the application of the above design approvals and certificates.

8. PARTICIPATION IN THE WORKING ARRANGEMENT.

- 8.1 Under the WA-AC, a holder of a CAAS SAR-21 DOA who is located in Singapore may apply for EASA validation, through CAAS, of the following design approvals and certificates: -
 - (a) EASA Supplemental Type Certificate (STC);
 - (b) EASA Major Repair Design Approval (RDA);
 - (c) EASA Minor Change Approval;
 - (d) EASA Minor RDA;
 - (e) EASA European Technical Standard Order Authorisation (ETSOA).
- A holder of a Part-21 DOA issued by EASA who is located within Europe, Switzerland, Norway, Iceland and Lichtenstein that intends to apply for CAAS validation of their design approvals and certificates under the WA-AC should notify EASA of such intent. However, for a CAAS validation of EASA minor change or minor repair design approval, the holder of a Part-21 DOA issued by EASA may contact CAAS directly via CAAS_AFO_infocenter@caas.gov.sg.
- 8.3 To allow sufficient processing time by CAAS and EASA, applicant intending to apply for a CAAS / EASA validation should notify CAAS or EASA of such intent at the earliest opportunity.

PROCEDURES FOR APPLICATION OF A EASA STC OR A MAJOR CHANGE TO A EASA STC.

- 9.1 A holder of a SAR-21 DOA who is located in Singapore is eligible to apply for a EASA STC or a major change to a EASA STC through CAAS when:
 - (a) such holder already holds a CAAS STC and intends to apply for a EASA STC; or
 - (b) such holder does not hold a CAAS STC but intends to apply for both CAAS and EASA STCs.
- 9.2 For the STC application to be considered, it must be for an aircraft where:
 - (a) the type certificate is issued by EASA; and
 - (b) the type certificate issued by the State of Design is accepted by CAAS under a letter of acceptance of type certificate.

¹ The list of type certificates accepted by CAAS under a letter of acceptance of type certificate can be found on CAAS website.

- 9.3 To support the application of the EASA STC through CAAS, the applicant has to submit to CAAS the following:
 - (a) A copy of the CAAS STC package as required in SAR-21 Subpart C, including a definition of the airworthiness and environmental protection standards which the change to design was approved by the CAAS and the corresponding EASA requirements; and
 - (b) an application package comprising of the following:
 - i. Declaration of classification of design change as a "Major Change" indicating that the design change will be performed in accordance with Annex I (Part 21) to Regulation (EU) No 748/2012, Point 21A.91 and GM 21A.91;
 - ii. A copy of the SAR-21 DOA certificate and scope of approval;
 - A completed EASA Form FO.CERT.00033 Application for Supplemental Type Certificate or other applicable EASA Form as revised;
 - iv. Certification Programme as defined in point 21.A.20 of Annex I (Part 21) to Commission Regulation (EU) No 748/2012 (the applicant may utilise the CAAS STC package as required under paragraph 9.3a) as a basis and include any additional requirements under Commission Regulation (EU) No. 748/2012);
 - v. A declaration that the change and areas affected by the change comply with the applicable EASA type-certification basis and environmental protection requirements as defined in the Certification Programme;
 - vi. In the case of a change affecting the operational suitability data, a declaration that the necessary changes to the operational suitability data meet the applicable operational suitability data certification basis as defined in the Certification Programme:
 - vii. The compliance documents in which the justification of compliance is recorded;
 - viii. A declaration that no feature or characteristic has been identified that may make the product unsafe under the conditions of the certification; and
 - ix. Should the type certificate issued by EASA be different with the type certificate accepted by CAAS, the applicant will need to submit an assessment of the differences in the airworthiness standards and determine the associated compliance demonstrations.
- 9.4 Once the submission package under paragraph 9.3 is assessed to be complete, CAAS will forward the submission package for consideration by EASA. Upon receipt of the submission package, EASA will inform the applicant of the applicable EASA fees and charges.
- 9.5 CAAS and EASA reserves the right to perform conformity verifications, compliance verifications and request for any other information in areas associated with the major type design change as stated in the application.
- 9.6 CAAS may issue a CAAS STC if the applicable requirements have been met and has received the applicable CAAS fees and charges.
- 9.7 The applicant will be notified of further conditions and procedures for EASA approval where necessary. EASA may issue a EASA STC if the applicable requirements have been met and has received the applicable EASA fees and charges.
- 9.8 A major change to the part of the product covered by a CAAS STC must not be made without CAAS approval. Application for such changes can only be made by the CAAS STC holder in accordance with procedures as stated under SAR-21.345. With regards to the CAAS-approved major changes to the EASA-validated CAAS STC, the STC holder has to adhere to the procedures set out under paragraphs 9.4 to 9.6 to apply to EASA for a Major Change approval or to revise the EASA STC (where applicable). A minor change to STC is to be processed in accordance with paragraph 11.

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10. PROCEDURES FOR APPLICATION OF A EASA MAJOR RDA.

- 10.1 A holder of a SAR-21 DOA who is located in Singapore is eligible to apply for a EASA Major RDA through CAAS when:
 - (a) such holder already holds a CAAS RDA and intends to apply for a EASA Major RDA; or
 - (b) such holder does not hold a CAAS RDA but intends to apply for both a CAAS RDA and EASA Major RDA.
- 10.2 For the EASA Major RDA application to be considered, it must be:
 - (a) for an aircraft that was issued with a type certificate by EASA and the type certificate issued by the State of Design is accepted by CAAS under a letter of acceptance of type certificate; and
 - (b) for the purpose to restore the product or article back to its original type-certification basis and environmental protection requirements.
- 10.3 To support the application of the EASA RDA through CAAS, the applicant has to submit to CAAS the following:
 - (a) A copy of the CAAS RDA package as required in SAR-21 Subpart F, including a definition of the airworthiness and environmental protection standards upon which the repair was approved by CAAS and the corresponding EASA requirements;
 - (b) An application package comprising of the following:
 - Declaration of classification of repair design as "Major" indicating that the repair design will be performed in accordance with Annex I (Part 21) to Regulation (EU) No 748/2012, Point 21A.435 and associated guidance material;
 - ii. CAAS DOA and scope of approval;
 - iii. Completed EASA Form FO.CERT.00031- Application for Approval of Major Change / Major Repair Design or other applicable EASA Form as revised;
 - iv. A Certification Programme that contains the following:
 - (a) a description of the damage and repair design that also identifies the configuration of the type design;
 - (b) an identification of all areas of the type design and the approved manuals that are changed or affected by the repair design and its justifications;
 - (c) an identification of any further compliance findings necessary to demonstrate compliance of the repair design and areas affected by the repair design with the applicable type-certification basis (the applicant may utilise the CAAS RDA package as required under paragraph 10.3a) as a basis and include any additional requirements as needed);
 - any proposed amendments to the type-certification basis or environmental protection requirements incorporated by reference in the type-certificate or supplemental type-certificate or auxiliary power unit (APU) ETSOA, as applicable;
 - (e) the proposed means and processes to demonstrate compliance; and
 - (f) where the applicant is not the supplemental type-certificate, or APU ETSOA holder, as applicable, a justification that the submitted identifications is adequate based on either the applicant's resources, or through an arrangement with the supplemental type-certificate or APU ETSOA holder

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- v. A declaration of compliance with the applicable type-certification basis and the compliance documents in which the justifications of compliance have been recorded:
- vi. A declaration that no feature or characteristic has been identified that may make the product unsafe for the uses for which certification is requested;
- vii. Where there is an arrangement with the STC or APU ETSOA holder per paragraph 10.3.(b).(vi):
 - (a) a statement that the holder has advised that it has no technical objection to the information submitted under Paragraph 10.3.(b)(vi) above; and
 - (b) a statement that the holder has agreed to collaborate with the RDA holder to ensure discharge of all obligations for continued airworthiness of the changed product through compliance with Regulation (EU) No 748/2012, Point 21.A.451.
- viii. For an application where the type certificate issued by EASA is different with the type certificate accepted by CAAS, the applicant has to submit an assessment of the differences in the airworthiness standards and determine the associated compliance demonstrations; and
- ix. A record of differences in the affected airworthiness standards between the type certificate accepted by CAAS and EASA.
- 10.4 Once the submission package under paragraph 10.3 is assessed to be complete, CAAS will forward the submission package for consideration by EASA. Upon receipt of the submission package, EASA will inform the applicant of the applicable EASA fees and charges.
- 10.5 CAAS and EASA reserves the right to perform conformity vertifications, compliance verifications and may request for any other information in areas associated with the RDA as stated in the application.
- 10.6 CAAS may issue a CAAS RDA if the applicable requirements have been met and has received the applicable CAAS fees and charges.
- 10.7 The applicant will be notified of further conditions and procedures for EASA approval where necessary. EASA may issue an EASA Major RDA if the applicable requirements have been met and has received the applicable EASA fees and charges.

11. PROCEDURES FOR APPLICATION OF A EASA MINOR CHANGE / MINOR RDA.

- 11.1 A holder of a SAR-21 DOA who is located in Singapore is eligible to apply for EASA Minor Change / Minor RDA through CAAS if the minor changes to Type Certificates and STCs, and minor repair designs are approved by CAAS in accordance with SAR-21.305(c) and SAR-21.505 respectively. CAAS AC 21-1 provides the additional information on approval requirements for modifications and repairs.
- 11.2 To support the application of an EASA Minor Change / Minor RDA through CAAS, the applicant has to submit to CAAS the following:
 - (a) Declaration of classification of design change or repair as "Minor" in accordance with Annex I (Part 21) to Regulation (EU) No 748/2012, Point 21A.91 and GM 21A.91 for modifications and Point 21.A.435 for repairs;
 - (b) A completed Form CAAS(AW)47 or Form CAAS(AW)206;
 - (c) A copy of the CAAS DOA, or in the case of a minor change on a previously approved STC, copy of the associated CAAS STC or EASA STC;

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- (d) A completed EASA Form FO.CERT.00032 Application for Approval of Minor Change / Minor Repair Design; and
- (e) Associated change / repair instructions and compliance documents and its justification.
- 11.3 For a change that affects the operational suitability data, the applicant has to file a declaration that the necessary changes to the operational suitability data meets the applicable operational suitability data certification.
- 11.4 Once the submission package under paragraph 11.2 is assessed to be complete, CAAS will forward the submission package for consideration by EASA. Upon receipt of the submission package, EASA will inform the applicant of the applicable EASA fees and charges.
- 11.5 CAAS may issue a CAAS minor design change approval or a CAAS RDA approval if the applicable requirements have been met and has received the applicable CAAS fees and charges.
- 11.6 The applicant will be notified of further conditions and procedures for EASA approval where necessary. EASA may issue an EASA Minor Change / Minor RDA if the applicable requirements have been met and has received the applicable EASA fees and charges.

12. PROCEDURES FOR APPLICATION OF A EASA ETSOA OR A MAJOR / MINOR CHANGE TO A EASA ETSOA.

- 12.1 A holder of a SAR-21 DOA who is located in Singapore and concurrently holds a EASA Production organisation approval (POA) is eligible to apply for a ETSOA or a Major Change to a EASA ETSOA through CAAS when:
 - (a) such holder already holds a CAAS STSO Certificate of Approval and intends to apply for a EASA ETSOA; or
 - (b) such holder does not hold a CAAS STSO Certificate of Approval and intends to apply for both a CAAS STSO Certificate of Approval and a EASA ETSOA.
- 12.2 EASA will only consider authorisation of articles that have met the applicable EASA ETSO requirements.
- 12.3 To support the application of the EASA ETSO through CAAS, the applicant has to submit to CAAS the following:
 - (a) A completed EASA Form FO.ETSOA.000034 Application for ETSOA;
 - (b) A copy of CAAS STSO Certificate of Approval and the associated package for the article as required in SAR-21 Subpart E;
 - (c) CAAS DOA;
 - (d) EASA POA granted under Commission Regulation (EU) No 748/2012;
 - (e) The required technical data as stated in the applicable airworthiness design standards and should include a Declaration of Design Performance (DDP);
 - (f) the applicant's demonstration and declaration of compliance to EASA ETSO standard; and
 - (g) The applicant explaination for the logic for minor changes in open brackets.
- 12.4 The application package will be reviewed for completeness and the applicant will be notified to submit more information where needed. Once the submission package under paragraph 12.3 is assessed to be complete, CAAS will forward the submission package for consideration by EASA. Upon receipt of the submission package, EASA will inform the applicant of the applicable EASA fees and charges.

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- 12.5 CAAS and EASA reserves the right to perform conformity verifications, compliance verifications and request for any other information in areas associated with the design of the article as stated in the application.
- 12.6 CAAS may issue a CAAS STSO Certificate of Approval if the applicable requirements have been met and has received the applicable CAAS fees and charges.
- 12.7 The applicant will be notified of further conditions and procedures of approval where necessary. EASA may issue a EASA ETSOA if the applicable requirements have been met and has received the applicable EASA fees and charges.
- 12.8 An existing ETSOA holder intending to perform a minor change to an ETSOA article covered by the initial ETSOA through the use of open brackets in the Part Number, and which have been accepted by CAAS, have to notify EASA through CAAS of the minor change on a regular basis.
- 12.9 Any minor change introduced by a design organisation other than the ETSOA holder requires an application for a separate ETSOA through CAAS. The applicant will need to follow the application process as described for an ETSOA.

13. PARTS PRODUCED UNDER THE WA-AC.

13.1 The applicant should note that each new engine and/or propeller, part or appliance produced as a result of the EASA design approvals obtained under the WA-AC has to be delivered with an individual 'EASA Form 1'.

14. PROCEDURES FOR THE APPLICATION OF A CAAS MINOR CHANGE / MINOR RDA BY EASA PART 21 DOA.

- 14.1 A holder of a EASA Part 21 DOA who is located within Member States of the European Union, Switzerland, Norway, Iceland or Lichtenstein is eligible to apply to CAAS for a CAAS Minor Change / Minor RDA if the minor change or RDA is classified as "Minor" in accordance with Annex I (Part 21) to Regulation (EU) No 748/2012, Point 21A.91 and GM 21A.91
- 14.2 To support the application of the CAAS Minor Change / Minor RDA, the applicant has to submit the following:
 - (a) A copy of the EASA DOA or EASA alterate procedures for design organisation;
 - (b) A completed Form CAAS(AW)47 Application Form SAR-21 Modification Approval or Form CAAS(AW)206 – Application Form SAR-21 Repair Design Approval;
 - (c) Associated modification / repair instructions and compliance documents including its justification for compliance; and
 - (d) A declaration that the applicant had demonstrated and declared compliance to the EASA type-certification basis.
- 14.3 CAAS will acertain that the requested modification or repair is indeed classified as "Minor" under CAAS regulations (i.e. not classified as a "Major" modification under SAR 21.300 and CAAS AC 21-1) before processing the application for a CAAS Minor Change / Minor RDA. CAAS may issue a CAAS Minor Change / Minor RDA if the applicable requirements (including SAR-21.1505) have been met and has received the applicable CAAS fees and charges.
- 14.4 In the event where after reviewing, CAAS deems that the requested modification or repair is "Major" under CAAS regulations, CAAS may process the application as a major modification under CAAS SAR-21 Subpart C.

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15. RESPONSIBILITIES FOR HOLDERS OF DESIGN APPROVALS ISSUED UNDER WA-AC.

- 15.1 An applicant should note that he is subjected to the requirements contained in SAR-21.1505.
- 15.2 An applicant that makes an application under the ambit of the WA-AC is to assist EASA and CAAS in analysis and drafting of the respective mitigating actions to mitigate any associated safety risk.

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