

Advisory Circular

IMPLEMENTATION PROCEDURES FOR THE TECHNICAL ARRANGEMENT ON AVIATION MAINTENANCE BETWEEN CAAS AND UKCAA

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GENERAL

Advisory Circulars (ACs) are issued by the Director-General of Civil Aviation (DGCA) from time to time to provide practical guidance or certainty in respect of the statutory requirements for aviation safety. ACs contain information about standards, practices, and procedures acceptable to CAAS. An AC may be used, in accordance with section 11 of the Air Navigation Act 1966 (ANA), to demonstrate compliance with a statutory requirement. The revision number of the AC is indicated in parenthesis in the suffix of the AC number.

PURPOSE

This AC is issued to provide information and guidance relating to the Technical Arrangement on Aviation Maintenance (“the TA-M”) between the Civil Aviation Authority of Singapore (CAAS) and the Civil Aviation Authority of the United Kingdom of Great Britain and Northern Ireland (UKCAA). This document sets out procedures relating to the approval of a SAR-145 approved maintenance organisation (SAR-145 AMO) under the TA-M.

APPLICABILITY

This AC applies to a SAR-145 AMO located in Singapore intending to perform work under the TA-M.

CANCELLATION

This AC supersedes AC 145-15 (Rev 0) and updates on the requirements relating to the issue of an Authorised Release Certificate (ARC) performed under the TA-M.

EFFECTIVE DATE

This AC is effective from 1 January 2025.

REFERENCES

- SAR-145; and
- CAAS-UKCAA TA-M.

1 INTRODUCTION

- 1.1 The TA-M on the maintenance of civil aeronautical products¹ between CAAS and UKCAA comes into effect on 1 January 2021.
- 1.2 The TA-M allows a Singapore-based SAR-145 AMO approved under the provisions of the TA-M to perform maintenance on UK civil aeronautical products in accordance with the requirements of UKCAA Part 145 and SAR-145.
- 1.3 A SAR-145.50 certificate of release to service issued for maintenance performed on an aircraft in accordance with this TA-M will be accepted by UKCAA as equivalent to a UKCAA Part 145.A.50 certificate of release to service.
- 1.4 A Form CAAS(AW)95 Authorised Release Certificate (ARC) issued for civil aeronautical products other than an aircraft in accordance with this TA-M will be accepted by UKCAA as equivalent to a CAA Form 1 ARC.

2 PARTICIPATION IN THE TECHNICAL ARRANGEMENT

- 2.1 A SAR-145 'A' or 'B' rated AMO located in Singapore should notify CAAS of its intention to seek approval under the terms of the TA-M in order to be able to perform maintenance on United Kingdom's civil aeronautical products.
- 2.2 A SAR-145 AMO holding only 'C' and/or 'D' ratings need not apply for approval under the TA-M. Such AMO will be accepted by the UKCAA for the performance of maintenance on UK civil aeronautical products within the scope of the SAR-145 AMO's ratings and limitations.

3 PROCEDURES FOR THE ACCEPTANCE OF A SAR-145 AMO

- 3.1 A SAR-145 'A' or 'B' rated AMO located in Singapore that intends to participate in the TA-M should follow the procedures as follows:
 - a) The application for approval under the TA-M should be submitted to the CAAS Principal Maintenance Inspector (PMI) responsible for the oversight of the organisation.

¹ Civil aeronautical product means any civil aircraft, aircraft engine, propeller, sub assembly, appliance, material, part or component to be installed thereon.

- b) The applicant must include in its application a copy of the supplement to its SAR-145 Maintenance Organisation Exposition (MOE), that should clearly demonstrate how the applicant intends to meet any special provisions of the TA-M. Appendix 1 of this document provides guidance on how to compile such a supplement.
- c) The applicant must provide CAAS with a Letter of Intent (LOI) from one of the following sponsor organisations:
 - (i) a United Kingdom air operator;
 - (ii) a UKCAA Part 145 AMO located in the UK; or
 - (iii) another SAR-145 AMO that is participating in the TA-M.

The LOI issued by the sponsor organisation must state its intention to engage the maintenance services of the applicant.

- 3.2 The applicant should facilitate any on-site audit by CAAS, if required.
- 3.3 The applicant will be approved under the TA-M when CAAS approves the MOE supplement and the scope of work that may be performed. CAAS will inform the UKCAA of the approval of the SAR-145 AMO under the TA-M.
- 3.4 The SAR-145 AMO must notify CAAS of any intent to make changes to the organisation in accordance with UKCAA Part 145.A.85, at least 3 weeks before such changes take place, with an amended supplement to CAAS.

4 SAR-145 AMO PERFORMING WORK ON UK CIVIL AERONAUTICAL PRODUCTS UNDER THE TA-M

- 4.1 A SAR-145 AMO that is approved under the TA-M to perform maintenance on UK civil aeronautical products must do so in accordance with the following provisions:
 - a) Maintenance of UK civil aeronautical products must be released in accordance with SAR-145 requirements. A SAR-145.50 certificate of release to service must be issued for maintenance performed on an aircraft. A Form CAAS(AW)95 ARC, with a statement "Released in accordance with the TA-M between UKCAA and CAAS", must be issued for maintenance performed on an engine, engine modules, auxiliary power units (APU) and propellers;
 - b) Maintenance of UK civil aeronautical products must be performed in accordance with the conditions specified by the owner or operator of the civil aeronautical products maintained;
 - c) UKCAA requirements in Airworthiness Directives, related to the work undertaken, must be complied with;
 - d) Design of repairs and modifications must be in accordance with UKCAA approved data;
 - e) UKCAA criteria must be used to determine whether a repair or modification is major or minor;
 - f) Technical records must be completed in accordance with UKCAA requirements;

- g) Any part installed pursuant to the TA-M must be manufactured and maintained by an organisation that is approved or acceptable to UKCAA;
- h) Only maintenance personnel who are familiar with the TA-M, the implementation procedures of this Advisory Circular and customers' special conditions may be allowed to perform inspections and issue the certificate of release to service for UK civil aeronautical products under the TA-M; and
- i) Conditions in Appendix 2 must be met for a certificate of release to service to be issued after the maintenance of a UK registered aircraft.

5 CONTRACTED AND SUBCONTRACTED WORK

- 5.1 A SAR-145 AMO performing maintenance on UK civil aeronautical products under the TA-M may contract work to another SAR-145 AMO that is participating in the TA-M.
- 5.2 Where work is contracted to a maintenance organisation outside of Singapore, the organisation must be approved by UKCAA or be otherwise acceptable to UKCAA under the terms of an existing TA-M or bilateral maintenance agreement with the competent authority of the country in which the organisation is located.

The SAR-145 AMOs can refer to the following URLs for guidance:

- a) List of UKCAA bilateral arrangements with foreign CAAs.
<https://www.caa.co.uk/commercial-industry/aircraft/airworthiness/modifications/bilateral-agreements/>
- b) List of SAR-145 AMOs approved by UKCAA or acceptable to UKCAA under the terms of an existing TA-M or bilateral maintenance agreement
<https://www.caa.co.uk/Commercial-industry/Aircraft/Airworthiness/Organisation-and-maintenance-programme-approvals/List-of-approved-organisations/>
- 5.3 The SAR-145 AMO may subcontract work to an unapproved maintenance organisation provided the SAR-145 AMO extends its quality system to that sub-contracted organisation and the work is within the scope of the ratings and limitations of the contracting SAR-145 AMO.
- 5.4 All maintenance on UK civil aeronautical products must be performed within the facilities of the SAR-145 AMO, or within the facilities of the SAR-145 AMO's contracted and subcontracted organisations approved under the SAR-145 AMO's MOE. The final certification of the civil aeronautical product i.e. ARC issuance, must be done by the SAR-145 AMO.
- 5.5 It is the SAR-145 AMO's responsibility to ensure that the customer is informed when subcontracting of work is required.

6 REVOCATION OF RECOGNITION PURSUANT TO THE TA-M

- 6.1 Notwithstanding any of the foregoing, UKCAA or CAAS may revoke the approval or recognition (as the case may be) of a SAR-145 AMO pursuant to the TA-M, if UKCAA or CAAS finds that the SAR-145 AMO is not maintaining the applicable standards or otherwise not achieving the intent of the TA-M.

7 SAFETY OVERSIGHT

- 7.1 Safety oversight of a SAR-145 AMO located in Singapore recognised under the TA-M will continue to be conducted by CAAS, including the scope of services provided under the TA-M.
- 7.2 UKCAA may, with reasonable prior notification through CAAS, inspect the SAR-145 AMO recognised under the TA-M, to investigate safety issues. UKCAA may also participate in CAAS audits and inspections of these SAR-145 AMOs.

8 LIST OF PARTICIPATING ORGANISATIONS UNDER THE TECHNICAL ARRANGEMENT

- 8.1 The list of organisations that have been approved under the TA-M will be published on the CAAS website at:

<https://www.caas.gov.sg/operations-safety/aircraft/maintenance-repair-overhaul>

APPENDIX 1: SUPPLEMENT TO THE MAINTENANCE ORGANISATION EXPOSITION (MOE)

Purpose

This Appendix provides guidance for a SAR-145 AMO based in Singapore on the development of a Supplement to the SAR-145 MOE required under the TA-M between CAAS and UKCAA. Where the material required by this Supplement is already incorporated into the MOE, the Supplement need only contain a reference to where the requirement is located in the MOE.

COVER PAGE

**UKCAA SUPPLEMENT TO SAR-145 AMO
MAINTENANCE ORGANISATION EXPOSITION**

REF _____

Company Name and Facility Address

CAAS SAR-145 APPROVAL NO. _____

DATE OF SUPPLEMENT: _____

This supplement, together with the SAR-145 MOE, form the basis of acceptance by UKCAA for maintenance carried out by this organization on civil aeronautical products under the regulatory control of UKCAA.

Maintenance carried out and certified in accordance with the referenced MOE and this Supplement is accepted as meeting the requirements of UKCAA Part 145.

1. INTRODUCTION

This paragraph should address why the UKCAA Supplement is necessary.

“The Civil Aviation Authority of Singapore (CAAS) and the United Kingdom Civil Aviation Authority (UKCAA) concluded a Technical Arrangement (TA-M) on 18 December 2020 that allows the reciprocal acceptance of approved maintenance organizations (SAR-145 AMO) qualifying under the provisions of the arrangement.

This supplement is therefore intended to inform the staff of the SAR-145 AMO of additional considerations that need to be considered when working in accordance with the TA-M.”

2. ACCOUNTABLE MANAGER’S COMMITMENT STATEMENT

This paragraph represents the agreement by the Accountable Manager that the SAR-145 AMO will comply with the conditions specified in the supplement. The accountable manager is usually the SAR-145 AMO’s Chief Executive Officer (CEO) but can be the person holding another responsible position if he/ she has full financial authority.

An acceptable statement may be as follows:

“This supplement defines in conjunction with the CAAS SAR-145 AMO’s MOE Ref the SAR-145 AMO and procedures upon which UKCAA acceptance is based.

These procedures are approved by the undersigned and must be adhered to when maintenance work is being performed for any customer that operates under the jurisdiction of the UKCAA and the TA-M.

It is recognized that the SAR-145 AMO’s procedures do not override the necessity of complying with any additional requirements formally published by UKCAA and notified to this SAR-145 AMO from time to time.

It is further understood that CAAS and the UKCAA reserve the right to withdraw recognition or suspend or cancel any privileges granted pursuant to the TA-M if it is considered that procedures are not followed or that the standards are not maintained.

Signed by the Accountable Manager

For and on behalf of [the SAR-145 AMO],

_____ (name) _____ (signature) _____ (date)

Note: When the Accountable Manager is replaced, the new Accountable Executive/ Manager must sign the statement at the earliest opportunity so as not to invalidate the acceptance.

3. BASIS OF RECOGNITION AND LIMITATION

UKCAA’s recognition is based on full compliance with SAR-145 requirements, SAR-145 MOE and UKCAA supplement.

This recognition is limited to the scope of work permitted under the current approval granted by CAAS to the SAR-145 AMO in accordance with SAR-145 requirements and to the Singapore locations specified therein.

4. INTERNAL QUALITY ASSURANCE SYSTEM

This paragraph should reference the location in the AMO's SAR-145 MOE for the internal quality assurance system description and procedures.

5. ACCESS BY CAAS AND UKCAA

This paragraph should specify that officers from CAAS and UKCAA must be allowed access to the SAR-145 AMO for the purpose of assuring compliance with procedures and standards and to investigate specific problems.

There must also be an indication that in the case of a serious non-compliance with regulations or established standards, the SAR-145 AMO must accept that it may be subjected to UKCAA enforcement action in order to maintain status with UKCAA.

6. WORK ORDERS / CONTRACTS

This paragraph addresses the subject of work orders / contracts. The SAR-145 AMO must ensure that the maintenance contract is understood and agreed to by both parties.

The UK customer must ensure that the work orders / contracts are detailed and clear, and the SAR-145 AMO must ensure it receives work orders that it understands.

The work order should specify the inspection, overhaul, repair, preservation or modification to be carried out, the Airworthiness Directives to be complied with and parts to be replaced.

7. MAINTENANCE OF AIRCRAFT

This paragraph should describe the procedures for the maintenance of aircraft under the TA-M.

Release to service of an aircraft under the TA-M should be carried out in accordance with SAR-145 and conditions in Appendix 2. The certificate of release to service should include the following statement:

“Released in accordance with the TA-M between UKCAA and CAAS.”

When maintenance cannot be performed in accordance with the work order / contract, this fact must be made known to the customer.

8. MAINTENANCE OF COMPONENTS

This paragraph should describe the procedures for the maintenance of complete engines, propellers and APUs under the TA-M.

Release to service of complete engines, engine modules, propellers and APUs under the TA-M should be carried out in accordance with SAR-145. Form CAAS(AW)95 should be issued with the following statement reflected in Block 12 of the form:

“Released in accordance with the TA-M between UKCAA and CAAS.”

When maintenance cannot be performed in accordance with the work order / contract, this fact must be made known to the customer.

9. USE OF ACCEPTABLE COMPONENTS

This paragraph should describe the procedures to specify the use of components that are acceptable to UKCAA during the maintenance of UK civil aeronautical products.

Replacement parts must be manufactured or maintained by organisations approved or accepted by UKCAA.

The SAR-145 AMO should refer to Appendix 3 for acceptable ARCs for new / used components.

10. REPAIRS AND MODIFICATIONS

This paragraph should specify that the customer will obtain or establish the process to obtain necessary UKCAA approvals prior to the incorporation of major repairs and major modifications. The SAR-145 AMO will ensure that major repairs and major modifications are incorporated only when in receipt of the appropriate approvals.

The UKCAA criteria must be used to determine whether repairs and modifications are major.

The SAR-145 AMO will ensure that repairs and modifications, are performed in accordance with UKCAA Part 21 or in accordance with the data listed in Appendix 4.

11. CONTRACTING AND SUBCONTRACTING

This paragraph should describe the procedures for contracting and subcontracting.

The AMO may contract maintenance to other organisations within Singapore that hold a SAR-145 approval and is accepted under this TA-M, or other organisations outside the Singapore that are approved by the UKCAA or otherwise acceptable to the UKCAA.

The SAR-145 AMOs can refer to the following URLs for guidance:

- List of UKCAA bilateral arrangements with foreign CAAs.

<https://www.caa.co.uk/commercial-industry/aircraft/airworthiness/modifications/bilateral-agreements/>

- List of SAR-145 AMOs approved by UKCAA or acceptable to UKCAA under the terms of an existing TA-M or bilateral maintenance agreement

<https://www.caa.co.uk/Commercial-industry/Aircraft/Airworthiness/Organisation-and-maintenance-programme-approvals/List-of-approved-organisations/>

The SAR-145 AMO may subcontract work to other unapproved organisations provided that such organisations are under the control of the AMO and the AMO certifies the required return to service.

12. AIRWORTHINESS DIRECTIVES/ AIRWORTHINESS LIMITATIONS

This paragraph must describe the procedures for ensuring compliance with Airworthiness Directives (AD) and any airworthiness limitations. The applicable UKCAA regulations on ADs must be complied with.

ADs, Airworthiness Limitations, and other requirements declared mandatory by the State of Registry must be made available to maintenance personnel.

The customer must provide a copy of all ADs that must be complied with to the SAR-145 AMO and identify any airworthiness limitations to the SAR-145 AMO. The customer remains responsible for specifying any AD compliance required during maintenance and any airworthiness limitations through the work order.

13. MANDATORY REPORTING REQUIREMENT

This paragraph should specify the procedures to ensure all mandatory reportable conditions found in aeronautical products are reported to the customer of the aeronautical product, CAAS and UKCAA.

The SAR-145 AMO will report to CAAS and UKCAA, any unairworthy conditions related to a civil aeronautical product being maintained. The report will be submitted within 72 hours after the discovery of any failure, defect or malfunction that affects the safety of the civil aeronautical product.

The SAR-145 AMOs can refer to the following URL to report unairworthy conditions to UKCAA.

<https://www.caa.co.uk/Our-work/Make-a-report-or-complaint/MOR/Occurrence-reporting/>

The SAR-145 AMOs should use Form CAAS(AW)152 to report unairworthy conditions to CAAS. They can refer to the following URL to report unairworthy conditions to CAAS

<https://www.caas.gov.sg/docs/default-source/default-document-library/aw152r1.docx>

14. NOTIFICATION OF CHANGES

This paragraph should describe how the SAR-145 AMO intends to notify CAAS of any proposal to carry out the changes listed in UKCAA Part 145.A.85 within the required timeframe.

15. RECORD KEEPING

This paragraph should describe how the SAR-145 AMO intends to meet the requirements of the TA-M on the retention of technical records.

The AMO will retain a copy of each work order accompanied by all attached supplementary forms and parts certifications for a period of 3 years.

16. PERSONNEL RESPONSIBLE FOR RELEASE TO SERVICE

This paragraph should describe the procedures on how the SAR-145 AMO will ensure that personnel responsible for release to service an aeronautical product under the TA-M are familiar with the TA-M, any advisory material issued by CAAS in relation to this TA-M, this Supplement and any applicable customer's special conditions in relation to the performance of maintenance. Relevant personnel should also be informed of any updates of the laws, regulations, standards, practices, procedures and systems relevant to the TA-M.

APPENDIX 2: CONDITIONS TO BE MET BY A SAR-145 AMO, TO WHICH THIS TA-M APPLIES, FOR THE ISSUANCE OF A CERTIFICATE OF RELEASE TO SERVICE (CRS) FOR THE MAINTENANCE OF A UK REGISTERED AIRCRAFT

Purpose

This appendix provides guidance for 'A' rated SAR-145 AMOs based in Singapore, on the issuance of a CRS after maintenance on a UK registered aircraft is completed.

1. A CRS must be issued when all the maintenance required to be carried out on an aircraft at a time has been completed and certified.
2. The CRS must be issued in the flight technical log for the aircraft and include the following:
 - 2.1. Information identifying the certification as the CRS;
 - 2.2. The signature of the person issuing the CRS;
 - 2.3. Either the licence number or any other unique number that identifies the person and related to his or her privilege to issue the CRS; and
 - 2.4. The date and time of the issue of the CRS.
3. Before a person issues the CRS, he or she must ensure that:
 - 3.1. The certification of completion of maintenance has been issued by an individual who is permitted under Singapore legislation to certify for maintenance;
 - 3.2. Any defect in the aircraft that the person is aware of has been rectified;
 - 3.3. Rectification of defect has been deferred in accordance with paragraphs 4, 5 and 6; or
 - 3.4. If the defect could not be rectified or deferred, the details of the defect has been entered in the flight technical log for the aircraft.
4. The rectification of a defect may only be deferred if:
 - 4.1 The defect does not adversely affect the airworthiness of the aircraft;
 - 4.2 The operation of the aircraft for a flight with the defect is permitted by any of the following:
 - (a) The instructions for continuing airworthiness of the aircraft;
 - (b) The Minimum Equipment List for the aircraft;
 - (c) The Configuration Deviation List for the aircraft;
 - (d) An Airworthiness Directive; or

- 4.3 The defect is in an item of operational or emergency equipment that:
- (a) Is fitted to the aircraft; and
 - (b) Is not required by the certification basis for the aircraft
- 5 If the rectification of a defect is deferred, it must be deferred by a person who is permitted under Singapore legislation to certify for completion of whatever maintenance would be required for the rectification of the defect.
- 6 If the rectification of a defect is deferred, a record of the deferral must be made in the flight technical log for the aircraft by the person who defers the rectification of the defect and the record must include the following information:
- 6.1. A description of the defect;
 - 6.2. The justification for the person's decision to defer the rectification of the defect considering the requirements and conditions of paragraphs 4 and 5;
 - 6.3. Any limitations or conditions specified in a document mentioned in paragraph 4 in relation to the deferral of the rectification of the defect and the operation of the aircraft;
 - 6.4. The signature of the person; and
 - 6.5. The licence number, or any other unique number, that identifies the person and related to his or her privilege to certify for the completion of whatever maintenance would be required for rectification of the defect in accordance with paragraph 4.

APPENDIX 3: ACCEPTANCE OF NEW / USED COMPONENTS

New and used aircraft parts that have UK CAA Form 1 or equivalent ARCs are accepted for fitment onto a UK civil aeronautical product.

The following URL lists the acceptable ARCs for new / used components.

<https://www.caa.co.uk/commercial-industry/aircraft/airworthiness/approval-information-and-guidance/guidance-on-acceptance-of-components/>

APPENDIX 4: MODIFICATION AND REPAIR DATA

1. The following modification and repair data are acceptable to the UKCAA:
 - 1.1 Approved or accepted by the UKCAA in accordance with the UK Implementation Procedures for Airworthiness Covering Design Approval, Production and Surveillance Activities, Export Airworthiness Approval, Post Design Approval Activities, and Technical Assistance under the Agreement between the Government of The United States of America and the Government of The United Kingdom of Great Britain and Northern Ireland for the Promotion of Aviation Safety and its implementing procedures.
 - 1.2 Approved or accepted by the UKCAA under the scope of the Working Arrangement Between the Civil Aviation Directorate of The Department of Transport of Canada and the Civil Aviation Authority of The United Kingdom of Great Britain and Northern Ireland for the Promotion of Aviation Safety.
 - 1.3 Approved or accepted by the UKCAA under the scope of the Memorandum of Understanding (MoU) Between the Civil Aviation Authority, United Kingdom and Agência Nacional De Aviação Civil, Brazil for Promotion of Civil Aviation Safety.
 - 1.4 Approved or accepted by the UKCAA under the scope of the Working Arrangement between The Civil Aviation Bureau, Ministry of Land, Infrastructure, Transport and Tourism Japan (JCAB) and Civil Aviation Authority of the United Kingdom of Great Britain and Northern Ireland (CAA).
 - 1.5 Data approved by EASA where the Agency is responsible as the State of Design on behalf of the EU Member State.
 - (a) Modification and repair data approved by EASA is acceptable to the UKCAA if it was approved before 31 December 2020.
2. The AMOs can refer to the URL below for the list of UKCAA bilateral arrangements with foreign CAAs.

<https://www.caa.co.uk/Commercial-industry/Aircraft/Airworthiness/Organisation-and-maintenance-programme-approvals/Bilateral-agreements/What-is-a-bilateral-agreement/>