

# Advisory Circular

## IMPLEMENTATION PROCEDURES FOR THE TECHNICAL ARRANGEMENT ON MAINTENANCE BETWEEN CAAS AND CAANZ

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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 Maintenance (“the TA-M”) between CAAS and the Civil Aviation Authority of New Zealand (CAANZ).

### APPLICABILITY

This AC applies to a SAR-145 approved maintenance organisation (“AMO”) located in Singapore intending to perform work under the TA-M.

### CANCELLATION

This is the first AC issued on this subject.

### EFFECTIVE DATE

This AC is effective from 6 June 2023.

## REFERENCES

- Singapore Airworthiness Requirements Part 145 (SAR-145); and
- CAAS-CAANZ TA-M.

## 1 INTRODUCTION

- 1.1 The TA-M on the maintenance of civil aeronautical products<sup>1</sup> between CAAS and CAANZ came into effect on 30 September 2022.
- 1.2 The TA-M allows a Singapore-based SAR-145 AMO accepted under the provisions of the TA-M to perform maintenance on New Zealand civil aeronautical products in accordance with the requirements of CAANZ Part 145. The SAR-145 AMO may apply for its line maintenance facility located outside Singapore to be included, provided it meets the applicable requirements of the TA-M.
- 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 CAANZ as equivalent to a CAANZ Part 43 Subpart C 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 CAANZ as equivalent to a CAANZ Part 145 Form 1 ARC.

## 2 PARTICIPATION IN THE TECHNICAL ARRANGEMENT

- 2.1 A SAR-145 AMO 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 New Zealand's civil aeronautical products.

## 3 PROCEDURES FOR THE ACCEPTANCE OF A SAR-145 AMO

- 3.1 A SAR-145 AMO that intends to participate in the TA-M should submit an application for acceptance under the TA-M to the CAAS Principal Maintenance Inspector (PMI) responsible for the oversight of the organisation at least 90 days prior to the expected acceptance date, together with the following documents:
- a) A copy of a supplement to its SAR-145 Maintenance Organisation Exposition (MOE), that clearly demonstrates 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. A SAR-145 AMO may identify in the supplement its line maintenance facility outside Singapore to be included, provided it meets the applicable requirements of the TA-M.
  - b) A Letter of Intent (LOI) from one of the following sponsor organisations:
    - (i) a New Zealand air operator;
    - (ii) a CAANZ Part 145 AMO located in New Zealand; or
    - (iii) another SAR-145 AMO that is participating in the TA-M.

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<sup>1</sup> Civil aeronautical product means any civil aircraft, aircraft engine, propeller, appliance, part or component to be installed thereon.

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

- 3.2 The SAR-145 AMO should facilitate any on-site audit by CAAS, if required.
- 3.3 The SAR-145 AMO will be accepted under the TA-M when CAAS approves the MOE supplement and the scope of work that may be performed. CAAS will inform the CAANZ of the acceptance 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 listed in CAANZ Part 145.105, at least 3 weeks before such changes take place, with an amended supplement to CAAS.

#### **4 REQUIREMENTS FOR SAR-145 AMOS PERFORMING WORK ON NEW ZEALAND CIVIL AERONAUTICAL PRODUCTS UNDER THE TA-M**

##### Performance of maintenance under the TA-M

- 4.1 A SAR-145 AMO that is accepted under the TA-M to perform maintenance on New Zealand civil aeronautical products must do so in accordance with the following provisions:
  - a) The maintenance performed will be within the AMO's SAR-145 scope of ratings and limitations approval issued by CAAS;
  - b) The AMO uses aircraft components, parts or materials that are acceptable to CAANZ;
  - c) Design of repairs and modifications must be in accordance with CAANZ approved data;
  - d) All maintenance on New Zealand civil aeronautical products must be performed within the facilities of the AMO, or within the facilities of the AMO's contracted and subcontracted organisations listed in the SAR-145 MOE, and the final certification of the civil aeronautical product is done by an AMO accepted under the TA-M;
  - e) Maintenance of New Zealand 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 and a Form CAAS(AW)95 ARC must be issued for maintenance performed on a complete engine, propeller, appliance, part or component;

##### Reporting of unairworthy conditions

- 4.2 The SAR-145 AMO will report to CAANZ:
  - a) in accordance with CAANZ Part 12, any unairworthy conditions;
  - b) any reportable service difficulty (CA005D);

related to a civil aeronautical product being maintained. The report will be submitted as soon as practicable (or on the case of an incident concerning an aircraft performing Extended Diversion Time Operations, within 72 hours) after the discovery of any failure, defect or malfunction that affects the safety of the civil aeronautical product.

#### Contracting and subcontracting

- 4.3 A SAR-145 AMO accepted under the TA-M may contract component maintenance to other approved organisations that are able to issue a maintenance release certification acceptable to CAANZ.
- 4.4 A SAR-145 AMO may subcontract maintenance to an unapproved organisation working under the SAR-145 AMO's quality system if the work is within the scope of the ratings and limitations of the SAR-145 AMO. The final certification of the civil aeronautical product i.e., certificate of release or ARC issuance, must be done by a SAR-145 AMO accepted under the TA-M.

#### Maintenance release

- 4.5 A SAR-145 AMO accepted under the TA-M must ensure that:
- a) its certifying staff understand their responsibilities in accordance with SAR-145, this TA-M and the CAANZ Supplement; and
  - b) any certificate of release to service for maintenance completed on a New Zealand civil aeronautical product includes the SAR-145 AMO approval number and a statement "Released under the provisions of the TA-M between CAANZ and CAAS".

### **5 REVOCATION OF ACCEPTANCE PURSUANT TO THE TA-M**

- 5.1 CAANZ or CAAS may revoke the acceptance of a SAR-145 AMO pursuant to the TA-M, if CAANZ or CAAS finds that the SAR-145 AMO is not maintaining the applicable standards or otherwise not achieving the intent of the TA-M.

### **6 SAFETY OVERSIGHT**

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

### **7 LIST OF PARTICIPATING SINGAPORE ORGANISATIONS UNDER THE TA-M**

- 7.1 The list of Singapore organisations that have been accepted 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)**

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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 CAANZ. 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.

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**COVER PAGE**

**CAANZ 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 CAANZ for maintenance carried out by this organization on civil aeronautical products under the regulatory control of CAANZ.

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

**1. INTRODUCTION**

This paragraph should address why the CAANZ Supplement is necessary.

“The Civil Aviation Authority of Singapore (CAAS) and the Civil Aviation Authority of New Zealand (CAANZ) concluded a Technical Arrangement on Maintenance (TA-M) on 30 September 2022 that allows the reciprocal acceptance of approved maintenance organizations (AMOs) 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 CAANZ 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 CAANZ and the TA-M.

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

It is further understood that CAAS and the CAANZ reserve the right to withdraw acceptance 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**

CAANZ’s recognition is based on full compliance with SAR-145 requirements, the SAR-145 MOE and the CAANZ 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. ACCESS BY CAAS AND CAANZ**

This paragraph should specify that officers from CAAS and CAANZ 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 CAANZ enforcement action in order to maintain status with CAANZ.

#### **5. MAINTENANCE OF AIRCRAFT**

This sub-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 must include the following statement:

“Released under the provisions of the TA-M between CAANZ and CAAS.”

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

The SAR-145 AMO may use this paragraph to identify its line maintenance facility outside Singapore to be included, provided it meets the applicable requirements of the TA-M.

#### **6. MAINTENANCE OF COMPONENTS**

This sub-paragraph should describe the procedures for the maintenance of complete engines, propellers, appliances, parts or components under the TA-M.

Release to service of complete engines, propellers, appliances, parts and components under the TA-M should be carried out in accordance with SAR-145. The Authorised Release Certificate (ARC) Form CAAS(AW)95 should be issued.

The following statement should be reflected in Block 12 of the ARC:

“Released under the provisions of the TA-M between CAANZ and CAAS.”

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

## **7. SCOPE OF WORK**

This paragraph should state that the maintenance performed will be within the AMO's SAR-145 scope of ratings and limitations approval issued by CAAS.

## **8. SAFETY MANAGEMENT SYSTEM (SMS)**

This paragraph should describe the procedures on how the SAR-145 AMO will establish a SMS that is in accordance with the CAAS SMS requirements.

## **9. REPAIRS AND MODIFICATIONS**

This paragraph should specify that the customer will obtain or establish the process to obtain necessary CAANZ 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 CAANZ 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 CAANZ Part 21 or in accordance with the data listed in the current revision of CAANZ Advisory Circular 43-09.

## **10. CONTRACTING AND SUBCONTRACTING**

This paragraph should describe the procedures for contracting and subcontracting.

The AMO may contract maintenance to other approved organisations (including SAR-145 AMOs within Singapore accepted under this TA-M) that are able to issue a maintenance release certification acceptable to CAANZ.

The SAR-145 AMO can refer to the current revision of CAANZ Advisory Circular 00-1 for acceptable maintenance release certifications.

The AMO can refer to the URL below for the list of CAANZ bilateral arrangements with foreign CAAs.

<https://aviation.govt.nz/about-us/who-we-work-with/international-agreements-and-arrangements/>

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

## **11. 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 New Zealand 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.

## **12. 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 5 years.

## **13. LOCATION OF MAINTENANCE**

This paragraph should state that maintenance of New Zealand civil aeronautical products will only be performed within the facilities of the AMO, or within the facilities of the AMO's contracted and subcontracted organisations approved under the SAR-145 MOE.

## **14. MANDATORY REPORTING REQUIREMENTS**

This paragraph should specify the procedures to ensure that the SAR-145 AMO will report to CAANZ:

- (a) in accordance with CAANZ Part 12, any unairworthy conditions;.
- (b) any reportable service difficulty (CA005D);

related to a civil aeronautical product being maintained.

The report will be submitted as soon as practicable (or on the case of an incident concerning an aircraft performing Extended Diversion Time Operations, within 72 hours) after the discovery of any failure, defect or malfunction that affects the safety of the civil aeronautical product.

The SAR-145 AMO should refer to the following URL to report unairworthy conditions or service difficulties to CAANZ.

<https://aviation.govt.nz/safety/safety-reporting/electronic-occurrence-reporting/>

## **15. USE OF ACCEPTABLE COMPONENTS**

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

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

The SAR-145 AMO should refer to the current revision of CAANZ Advisory Circular 00-1 for acceptable ARCs for new / used components.

## **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 NEW ZEALAND REGISTERED AIRCRAFT**

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### Purpose

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

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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. The statement:

“Released under the provisions of the TA-M between CAANZ and CAAS.”
  - 2.2. Information identifying the certification as the CRS;
  - 2.3. The signature of the person issuing the CRS;
  - 2.4. Either the licence number or any other unique number that identifies the person with the privilege to issue the CRS; and
  - 2.5. 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 with the privilege to certify for the completion of whatever maintenance required for rectification of the defect in accordance with paragraph 4.