

Technical Arrangement – Maintenance (TA-M) between New Zealand and Singapore – Advice for Aircraft Maintenance Organisations (AMOs)

General

Civil Aviation Authority (CAA) Advisory Circulars (ACs) contain information about standards, practices, and procedures that the Director has found to be an acceptable means of compliance with the associated rule.

Consideration will be given to other methods of compliance that are presented to the Director. When new standards, practices, or procedures are found to be acceptable they will be added to the appropriate AC.

Purpose

This AC provides an acceptable means of compliance for New Zealand Civil Aviation Rule Part 145-certificated organisations, or Aircraft Maintenance Organisations (AMOs), to meet the requirements of rule 43.1(b) for doing work on aircraft registered in another State that is party to a technical agreement with CAANZ. Specifically, this AC follows from the Technical Arrangement – Maintenance (TA-M) signed between the Civil Aviation Authority of Singapore (CAAS) and the Civil Aviation Authority of New Zealand (CAANZ) and outlines the steps AMOs need to take to utilise this arrangement.

Related Rules

This AC relates to Parts 43 and 145. It provides advice on:

- the TA-M on the maintenance of aeronautical products between CAANZ and CAAS, and
- how New Zealand-based CAANZ Part 145-certificated AMOs, if approved under the provisions of the TA-M, can perform maintenance on CAAS-certificated aeronautical products in accordance with rule 43.1(b).

Change Notice

This is the initial issue of this AC.

Version History

History Log

Revision No.	Effective date	Summary of changes
AC145-2, Rev 0	3 April 2023	Initial issue

Table of Contents

1. Introduction	4
2. Abbreviations	4
3. References	4
4. How NZ AMOs can participate in the CAAS – CAANZ TA-M	5
How to apply	5
5. How CAANZ Part 145-certificated organisations carry out maintenance on CAAS-certificated products under the TA-M	6
6. Contracted and sub-contracted work	6
7. Revocation of recognition under the TA-M	7
8. Safety oversight	8
9. List of participating New Zealand organisations	8
APPENDIX 1: Supplement to Maintenance Organisation Exposition (MOE)	9
Purpose	9
1. Introduction.....	10
2. Accountable Manager’s Commitment Statement	10
3. Basis of recognition and limitation.....	11
4. Access by CAANZ and CAAS.....	11
5. Maintenance of aircraft.....	11
6. Maintenance of components	12
7. Scope of work	12
8. Safety Management System (SMS)	12
9. Repairs and modifications	12
10. Contracting and sub-contracting.....	13
11. Work orders and contracts.....	13
12. Airworthiness Directives (ADs) and Airworthiness Limitations.....	13
13. Location of maintenance.....	14
14. Mandatory reporting requirements.....	14
15. Use of acceptable components	14
16. Notification of changes	14
17. Record keeping	14
18. Authorisations to perform maintenance and Release-to-Service (RTS)	15
APPENDIX 2: TA-M conditions for issuing an RTS for maintenance of Singapore-registered aircraft	16
Purpose	16

1. Introduction

- 1.1. The TA-M on the maintenance of civil aeronautical products between CAANZ and CAAS was signed on 30 September 2022, allowing a New Zealand-based CAANZ Part 145-certificated AMO, if approved under the provisions of the TA-M, to perform maintenance on CAAS aeronautical products in accordance with the requirements of CAANZ Part 145.
- 1.2. A Part 43 Subpart C release-to-service (RTS) issued for maintenance performed on an aircraft in accordance with this TA-M will be accepted by CAAS as equivalent to a CAAS SAR-145.50 certificate of RTS.
- 1.3. A CAA Form One Authorised Release Certificate issued for civil aeronautical products other than an aircraft in accordance with this TA-M will be accepted by CAAS as equivalent to a Form CAAS(AW)95 Authorised Release Certificate (ARC).
- 1.4. It is important to note that this AC needs to be read in conjunction with a close reading of the TA-M which can be found on the CAA website at this link:
https://www.aviation.govt.nz/assets/about-us/international/CAAS_CAANZ-TA-M-Signed-09_2022.pdf

2. Abbreviations

While some abbreviations used in this AC are standard abbreviations from Rule Part 1, *Definitions and Abbreviations*, they have been listed here for convenience.

AD	Airworthiness Directive
AMO	Aircraft Maintenance Organisation
CAANZ	Civil Aviation Authority of New Zealand
CAAS	Civil Aviation Authority of Singapore
CDL	Configuration Deviation List
MEL	Minimum Equipment List
MOE	Maintenance Organisation Exposition
NAA	National Airworthiness Authority
RTS	Release-to-service
TA-M	Technical Arrangement - Maintenance

Note: For the purposes of this AC, the term Part 145-certificated organisation, denotes a New Zealand organisation holding a CAANZ Part 145 certificate.

3. References

- [CAAS-NZCAA TA-M](#)
- [Part 145, Aircraft Maintenance Organisations Certification](#)

- [Part 43, General Maintenance Rules, Subpart C](#)
- [AC00-5, Parts Documentation – CAA Form One – Authorised Release Certificate](#)
- [AC145-1, Aircraft Maintenance Organisations](#)
- [CAAS SAR-21 Subpart C and F](#)
- [CAAS SAR-145](#)
- [CAAS Advisory Circular 21-1 - Approval Requirements for Modifications and Repairs](#)
- [CAAS Advisory Circular 145-3 -Acceptability of Aircraft Parts](#)
- [CAAS\(AW\)152](#)
- [Surveillance & Enforcement \(caas.gov.sg\)](#)

4. How NZ AMOs can participate in the CAAS – CAANZ TA-M

4.1 This section outlines how an CAANZ-certificated Part 145 AMO located in New Zealand should formally notify CAANZ of its intention to seek approval under the TA-M to perform maintenance on CAAS civil aeronautical products.

How to apply

4.2 For a Part 145-certificated organisation to participate in the TA-M, an applicant needs to:

- Complete the relevant sections of [CAA 24145-01](#) to apply for an F1 rating, that is sections 1,2,3 and 10, as well as any sections that have changed and any information needed to demonstrate the organisation’s preparedness to participate in the TA-M.
- Include in its application a copy of the supplement to its CAANZ Part 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 AC provides guidance on how to compile such a supplement.
- Be able to demonstrate their ability to participate in this arrangement, for example in the form of a letter of intent or similar document.
- Email the form and attachments to CAANZ’s Certification Organisations Unit at certification@caa.govt.nz

4.3 The applicant will be approved under the TA-M when CAANZ approves the MOE supplement and the scope of work that may be performed under the terms of the supplement. CAANZ will inform CAAS of the approval of the CAANZ Part 145-certificated Organisation under the TA-M.

4.4 The CAANZ Part 145-certificated Organisation must notify CAANZ of any intent to make changes (listed in [CAAS SAR 145.85](#)) to the organisation with regard to its TA-M supplement before making any such change.

- 4.5 If CAANZ approves the application, amended Part 145 Certificate and Exposition Acceptance Documents, reflecting the addition of an F1 rating to carry out maintenance using the CAANZ and CAAS TA-M, will be issued, with appropriate notes.

5. How CAANZ Part 145-certificated organisations carry out maintenance on CAAS-certificated products under the TA-M

- 5.1. A CAANZ Part 145-certificated organisation that is approved under the TA-M to perform maintenance on CAAS civil aeronautical products must:
- 5.1.1 Release maintenance of CAAS civil aeronautical products in accordance with CAANZ Part 145 requirements, for example issuing:
 - a Part 43 Subpart C RTS for maintenance performed on an aircraft, and/ or
 - a CAA Form One for maintenance performed on a component such as an engine, propeller or APU.
 - 5.1.2 Perform maintenance of CAAS civil aeronautical products in accordance with the conditions specified by the owner or operator of the civil aeronautical products maintained
 - 5.1.3 Comply with CAAS requirements in Airworthiness Directives (ADs), related to the work undertaken
 - 5.1.4 Embody repairs and modifications in accordance with CAAS-approved data
 - 5.1.5 Use CAAS criteria to determine whether a repair or modification is major or minor
 - 5.1.6 Complete technical records in accordance with CAAS requirements
 - 5.1.7 Only install parts that are manufactured and maintained by an organisation that is approved or acceptable to CAAS
 - 5.1.8 Only allow maintenance personnel who are familiar with the TA-M, the implementation procedures of the organisation and customers' special conditions to perform inspections and issue the certificate of RTS for CAAS aeronautical products under the TA-M, and
 - 5.1.9 Meet conditions in Appendix 2 for an RTS to be issued after the maintenance of a CAAS-registered aircraft.

6. Contracted and sub-contracted work

- 6.1 A CAANZ Part 145-certificated organisation performing maintenance on CAAS civil aeronautical products under the TA-M may contract work to another CAANZ Part 145-certificated organisation within New Zealand that is participating in the TA-M.

- 6.2 Where work is contracted to a maintenance organisation outside of New Zealand, the organisation must be:
- Part 145-certificated or approved by CAAS, or
 - otherwise acceptable to CAAS under the terms of an existing TA-M or bilateral maintenance agreement with the National Airworthiness Authority (NAA) of the country in which the organisation is located, or
 - any other Part 145-certificated organisations that can issue a certification that is acceptable to CAAS.
- 6.3 For easy reference, there is a list of CAAS bilateral arrangements with foreign CAAs here:
- <https://www.caas.gov.sg/who-we-are/areas-of-responsibility/upholding-a-safe-aviation-environment/surveillance-enforcement>
- 6.4 A CAANZ Part 145-certificated organisation may sub-contract work to an uncertificated maintenance organisation provided:
- the certificated organisation extends their SMS to encompass the activity performed by the sub-contractor, and
 - the AMO confirms the work is within the scope of the ratings and limitations of the sub-contracting Part 145-certificated organisation, and
 - the AMO certifies the maintenance carried out by the sub-contracted organisation.
- 6.5 All maintenance on CAAS civil aeronautical products must be performed within the facilities of:
- the CAANZ Part 145-certificated organisation, or
 - within the facilities of the CAANZ Part 145-certificated organisation's contracted and sub-contracted organisations, if approved under the CAANZ Part 145-certificated organisation's MOE.
- 6.6 The final certification of the CAAS civil aeronautical product, must be done by the CAANZ Part 145-certificated organisation.

7. Revocation of recognition under the TA-M

- 7.1 CAAS or CAANZ may revoke the approval or recognition of a CAANZ Part 145-certificated organisation pursuant to the TA-M, if the NAA finds either that the CAANZ Part 145-certificated organisation is not maintaining the applicable standards, or it is otherwise not achieving the intent of the TA-M.

8. Safety oversight

- 8.1 CAANZ will continue to conduct safety oversight of any CAANZ Part 145-certificated organisation located in New Zealand recognised under the TA-M, including the scope of services provided under the TA-M.
- 8.2 CAAS may, with reasonable prior notification through CAANZ, inspect the CAANZ Part 145-certificated organisation recognised under the TA-M, to investigate safety issues. CAAS may also participate in CAANZ audits and inspections of these CAANZ Part 145-certificated organisations.

9. List of participating New Zealand organisations

- 9.1 A list of New Zealand organisations approved under the TA-M will be published on the CAANZ website.

APPENDIX 1: Supplement to Maintenance Organisation Exposition (MOE)

Purpose

This Appendix provides guidance for a CAANZ Part 145-certificated organisation based in New Zealand on the development of a Supplement to the CAANZ Part 145 MOE required under the TA-M between CAANZ and CAAS.

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.

Figure 1: Suggested cover page

COVER PAGE

CAAS SUPPLEMENT TO CAANZ PART 145 MAINTENANCE ORGANISATION EXPOSITION REF

Company Name and Facility Address

CAANZ Participant NO. _____

DATE OF SUPPLEMENT: _____

This supplement, together with the CAANZ Part 145 MOE, forms the basis of acceptance by CAANZ for maintenance carried out by this organisation on aeronautical products under the regulatory control of CAAS.

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

1. Introduction

- 1.1. This paragraph should address why the CAAS Supplement is necessary.

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

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

2. Accountable Manager’s Commitment Statement

- 2.1 This paragraph represents the agreement by the Accountable Manager that the CAANZ Part 145-certificated organisation will comply with the conditions specified in the supplement. The accountable manager is usually the CAANZ Part 145-certificated organisation’s Chief Executive (CE).
- 2.2 An acceptable statement may be as follows:

“This supplement defines, in conjunction with the CAANZ Part 145-certificated Aircraft Maintenance Organisation’s Exposition Ref..... the CAANZ Part 145 AMO and procedures upon which CAAS 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 CAAS and the TA-M.

It is recognised that the CAANZ Part 145-certificated Aircraft Maintenance Organisation procedures do not override the necessity of complying with any additional requirements formally published by CAAS and notified to this CAANZ Part 145-certificated Aircraft Maintenance Organisation from time to time.

It is further understood that CAANZ and the CAAS 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 CAANZ Part 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

- 3.1 CAAS recognition is based on full compliance with the:
- CAANZ Part 145 requirements
 - CAANZ Part 145 MOE, and
 - CAAS supplement.
- 3.2 This recognition is limited to the scope of work permitted under the current approval granted by CAANZ to the CAANZ Part 145-certificated organisation in accordance with CAANZ Part 145 requirements and to the New Zealand locations specified therein.

4. Access by CAANZ and CAAS

- 4.1 This paragraph should specify that inspectors from CAANZ and CAAS must be allowed access to the CAANZ Part 145-certificated organisation for the purpose of assuring compliance with procedures and standards and to investigate specific problems.
- 4.2 There must also be an indication that, in the case of a serious non-compliance with regulations or established standards, the CAANZ Part 145-certificated organisation must accept it may be subjected to CAAS enforcement action in order to maintain status with CAAS.

5. Maintenance of aircraft

- 5.1 This paragraph should describe the procedures for maintenance of aircraft under the TA-M.
- 5.2 RTS of an aircraft under the TA-M should be carried out in accordance with CAANZ Part 145 and conditions in Appendix 2. The statement:
- “Released under the provisions of the TA-M between CAANZ and CAAS”
- must be added to the RTS statement issued in accordance with CAANZ rule 43.105.
- 5.3 When maintenance cannot be performed in accordance with the work order or contract, this should be recorded, and the fact must be made known to the customer.
- 5.4 The CAANZ Part 145 AMO may use this paragraph to identify its line maintenance stations outside New Zealand to be included under the terms of the TA-M.

6. Maintenance of components

- 6.1 This paragraph should describe procedures for the maintenance of components under the TA-M.
- 6.2 RTS of components under the TA-M should be carried out in accordance with CAANZ Part 145. A CAA Form One should be issued with the following statement:

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

in Block 12.

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

7. Scope of work

- 7.1 All work performed will be within the scope of the ratings and limitations of the AMO’s CAANZ Part 145 certificate.

8. Safety Management System (SMS)

- 8.1 This paragraph should reference the location in the MOE for the SMS, description and procedures, including reference to CAANZ Part 100, where applicable.

9. Repairs and modifications

- 9.1 This paragraph should specify that the customer will obtain or establish the process to obtain necessary CAAS approvals prior to the incorporation of major repairs and major modifications. The CAANZ Part 145-certificated organisation will ensure that major repairs and major modifications are incorporated only when in receipt of the appropriate approvals.
- 9.2 The CAAS criteria must be used to determine whether repairs and modifications are major.
- 9.3 The CAANZ Part 145-certificated organisation will ensure that repairs and modifications are performed in accordance with CAAS SAR-21 Subpart F requirements or in accordance with:
- Modification and repair technical data specific in CAAS SAR-21 Subpart C and F <https://www.caas.gov.sg/legislation-regulations/regulatory-requirements/safety-regulation/airworthiness>
 - CAAS Advisory Circular 21-1 - Approval Requirements for Modifications and Repairs <https://www.caas.gov.sg/legislation-regulations/guidelines-advisory/airworthiness>

Note: The applicable versions of CAAS SAR-21 and AC 21-1 are the versions in effect at the time the modification and repair work are commenced.

10. Contracting and sub-contracting

- 10.1 This paragraph describes how the Part 145-certificated organisation plans to contract maintenance to other organisations within New Zealand that hold a Part 145 Certificate and are accepted under this TA-M, or other organisations outside of New Zealand that are approved by or otherwise acceptable to CAAS.
- 10.2 The Part 145 certificated organisation can refer to CAAS AC145-3, *Acceptability of Aircraft Parts*, for acceptable maintenance release certifications or to the following list of CAAS bilateral arrangements with foreign CAAs for guidance:
- <https://www.caas.gov.sg/who-we-are/areas-of-responsibility/upholding-a-safe-aviation-environment/surveillance-enforcement>
- 10.3 The CAANZ Part 145-certificated organisation may sub-contract work to non-certificated organisations, provided:
- the certificated organisation extends their SMS to encompass the activity performed by the sub-contractor
 - the AMO certifies that sub-contracted organisation
 - the AMO confirms the work is within the scope of the ratings and limitations of the sub-contracting Part 145-certificated organisation, and
 - the AMO certifies the required RTS.

11. Work orders and contracts

- 11.1 This paragraph addresses the subject of work orders and contracts. The CAANZ Part 145-certificated organisation must ensure that the maintenance contract is understood and agreed to by both parties.
- 11.2 The CAAS customer must ensure that the work orders and contracts are detailed and clear, and the CAANZ Part 145-certificated organisation must ensure it receives work orders that it understands.
- 11.3 The work order should specify the inspection, overhaul, repair, preservation or modification to be carried out and technical data to be used, the ADs to be complied with and parts to be replaced.

12. Airworthiness Directives (ADs) and Airworthiness Limitations

- 12.1 This paragraph describes the procedures for ensuring compliance with ADs and any airworthiness limitations. The applicable CAAS regulations on ADs must be complied with.
- 12.2 ADs, Airworthiness Limitations, and other requirements declared mandatory by the State of Registry must be made available to maintenance personnel.
- 12.3 The customer remains responsible for specifying any AD compliance required during maintenance and any airworthiness limitations through the work order.

13. Location of maintenance

- 13.1 All maintenance performed will be within the AMO's facilities, or the facilities of the AMO's contracted or subcontracted organisation approved under the AMO's CAANZ Part 145 MOE.
- 13.2 The final certification of the civil aeronautical product, i.e. the RTS, is to be done by the AMO in New Zealand.

14. Mandatory reporting requirements

- 14.1 This paragraph should specify the procedures to ensure all mandatory reportable conditions found in aeronautical products are reported to the type certificate holder of the aeronautical product, CAANZ and CAAS.
- 14.2 The CAANZ Part 145-certificated organisation will report any unairworthy conditions related to a civil aeronautical product being maintained to CAANZ and CAAS. 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.
- 14.3 CAANZ Part 145-certificated organisations can refer to form CAAS(AW)152 to report unairworthy conditions to CAAS:

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

Note: You can report unairworthy conditions to CAAS by email at: CAAS_AM@caas.gov.sg

15. Use of acceptable components

- 15.1 This paragraph should describe the procedures to specify the use of components that are acceptable to CAAS during the maintenance of Singaporean civil aeronautical products.
- 15.2 Replacement parts must be manufactured or maintained by organisations approved or accepted by CAAS.
- 15.3 Guidance on the use of new and used aircraft parts may be found in the latest version of:
- CAAS Advisory Circular 145-3 - *Acceptability of Aircraft Parts*:
<https://www.caas.gov.sg/legislation-regulations/guidelines-advisory/airworthiness>

16. Notification of changes

- 16.1 This paragraph should describe how the CAANZ Part 145-certificated organisation intends to notify CAANZ of any proposal to carry out the changes listed in SAR-145.85 within the required timeframe.

17. Record keeping

- 17.1 This paragraph should describe how the CAANZ Part 145-certificated organisation intends

to meet the requirements of the TA-M with regard to the retention of technical records.

- 17.2 The AMO will retain a copy of each technical directive/work order, accompanied by all attached supplementary forms and parts certifications, in accordance with CAANZ rule 145.63, *Records*.

18. Authorisations to perform maintenance and Release-to-Service (RTS)

- 18.1 This paragraph should describe the procedures on how the CAANZ Part 145-certificated organisation will ensure that personnel carrying out maintenance and RTS of an aeronautical product under the TA- M are trained and authorised. Such staff must be familiar with:

- the TA-M
- any advisory material in relation to this TA-M
- this Supplement, and
- any applicable customer's special conditions in relation to the performance of maintenance.

- 18.2 Authorised personnel should also be informed of any updates of the laws, regulations, standards, practices, procedures and systems relevant to the TA-M.

APPENDIX 2: TA-M conditions for issuing an RTS for maintenance of Singapore-registered aircraft

Purpose

This appendix provides guidance for appropriately-rated CAANZ Part 145-certificated organisations, on the issue of an RTS on a Singapore registered aircraft.

1. An RTS must be issued when all the maintenance required to be carried out on an aircraft has been completed and certified.
2. The RTS must be issued in the aircraft tech log for the aircraft and include:
 - 2.1 The statement: *Released under the provisions of the TA-M between CAANZ and CAAS*
 - 2.2 Information identifying the certification as the RTS
 - 2.3 The signature of the person issuing the RTS
 - 2.4 Authorisation number that identifies the person and related to his or her privilege to issue the RTS, and
 - 2.5 The date and time of the issue of the RTS.
3. Before a person issues the RTS, he or she must ensure that:
 - 3.1. The certification of completion of maintenance has been issued by an individual who is appropriately authorised to certify for maintenance
 - 3.2. Any defect in the aircraft that the person is aware of has been rectified, or
 - 3.3. rectification of defect has been deferred in accordance with paragraphs 4, 5 and 6, and
 - 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:
 - (a) The instructions for continuing airworthiness of the aircraft
 - (b) The Minimum Equipment List (MEL) for the aircraft
 - (c) The Configuration Deviation List (CDL) for the aircraft, or
 - (d) An AD, 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 appropriately authorised 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:
 - 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 sections 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 authorisation 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 section 4.