

Advisory Circular

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

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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 3C of the Air Navigation Act (Cap. 6) (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-AM) between the CAAS and the Civil Aviation Administration of China (CAAC).

APPLICABILITY

This AC applies to a maintenance organisation located in Singapore or China intending to perform work under the TA-AM.

REFERENCES

- Singapore Airworthiness Requirements Part 145 (SAR-145);
- China Civil Aviation Regulation Part 145 (CCAR-145);
- CAAS Advisory Circular AC 145-3 on Acceptability of Maintained Parts;
- CAAS Advisory Circular AC 21-1 on Approval Requirements for Modifications and Repairs; and
- Implementation Procedures for the TA-AM between CAAC and CAAS (IP for TA-AM).

CANCELLATION

This is the first AC issued on the subject.

EFFECTIVE DATE

This AC is effective from 17 June 2021.

1 INTRODUCTION

- 1.1 The CAAS and the CAAC entered into a Technical Arrangement on Aviation Maintenance (TA-AM) that permits each Authority to grant its own maintenance approval to the maintenance organisation based on the strength of the approval granted by the other Authority, provided these organisations are qualified under the provisions of the arrangement.
- 1.2 A “participating approved maintenance organisation” is an approved maintenance organisation (AMO) that is granted a CCAR-145 Maintenance Organisation Certificate (MOC) or SAR-145 Maintenance Organisation Approval (MOA) under the provisions of the CAAC-CAAS TA-AM.
- 1.3 Under the provisions of the TA-AM,
 - (a) A participating CCAR-145 AMO located in China with a SAR-145 approval to perform work on Singapore registered aircraft and/or aeronautical products is not subjected to inspections or audits by CAAS. The validity of the SAR -145 approval is subject to a valid CCAR-145 MOC.
 - (b) A participating SAR-145 AMO located in Singapore with a CCAR-145 approval to perform work on Chinese registered aircraft and/or aeronautical products is not subjected to inspections or audits by CAAC. The validity of the CCAR-145 MOC is subject to a valid SAR-145 MOA.

2 TRANSITION FOR MAINTENANCE ORGANISATIONS CURRENTLY HOLDING CAAS AND CAAC APPROVALS

- 2.1 An AMO located in China who holds a CCAR-145 MOC and a SAR-145 MOA may participate in the TA-AM. The organisation must:
 - (a) Notify its assigned CAAS principal maintenance inspector; and
 - (b) Submit an application to CAAS, together with the relevant documents such as its current CCAR-145 MOC and the CAAS Supplement to the CAAC Maintenance Management Manual (See **Appendix 1** for Guidance on developing a CAAS Supplement).
- 2.2 A SAR-145 AMO located in Singapore and currently holding a CCAR-145 approval may participate in the TA-AM. The organisation must:
 - (a) Notify CAAC of its intention to seek participation in the CAAC-CAAS TA-AM;
 - (b) Submit an application for participation in the TA-AM to CAAC; and
 - (c) Refer to the relevant CAAC guidelines.

3 PROCEDURES FOR CCAR-145 AMO LOCATED IN CHINA INTENDING TO PARTICIPATE UNDER THE PROVISIONS OF THE TA-AM

Application for Initial Grant of SAR-145 Approval

- 3.1 A CCAR-145 AMO who intends to apply for SAR-145 MOA under the TA-AM must do the following:
- (a) Contact CAAS Flight Standards Division directly (via email at caas_am@caas.gov.sg) to notify on its intention to apply for SAR-145 certification under the provisions of TA-AM. To support its eligibility status, the applicant must provide CAAS with the following:
 - (i) A copy of its current CCAR-145 MOC; and
 - (ii) A letter of intent, from a Singapore registered air operator or another SAR-145 AMO, clearly stating its intention to engage the maintenance services of the applicant;
 - (b) Put up a formal application submission after being notified by CAAS, including the documents, as indicated in **Appendix 2**; and
 - (c) Pay the applicable fee in the Twelfth Schedule of the Air Navigation Order (ANO) for the application made in paragraph 3.1(b).

4 RENEWAL PROCEDURES FOR A PARTICIPATING AMO LOCATED IN CHINA

- 4.1 A participating AMO should submit to CAAS an application for renewal of SAR-145 approval at least 60 days before its expiry. The procedures for renewal of the SAR-145 MOA are as follows:
- (a) Submit the renewal application package, as indicated in **Appendix 2**, to its assigned CAAS principal maintenance inspector; and
 - (b) Pay the applicable fee in the Twelfth Schedule of the ANO for the application made in paragraph 4.1(a).

5 PROCEDURES FOR CHANGES TO SAR-145 APPROVAL

- 5.1 A participating AMO must submit to CAAS an application before making any of the following changes to the SAR-145 approval:
- (a) Name of the organisation;
 - (b) Location of the organisation;
 - (c) Additional locations of the organisation (within China);
 - (d) Change of SAR-145 approved maintenance ratings; and
 - (e) Any major changes to personnel, facilities, procedures and work scope that could affect the approval.
- 5.2 The procedures for the application mentioned in paragraph 5.1 are as follows:
- (a) Notify its assigned CAAS principal maintenance inspector, at least 3 weeks in advance, on any proposed changes that could affect its SAR-145 approval;
 - (b) Submit the documents, as indicated in **Appendix 2**, including that:

- (i) All proposed changes are reflected in the applicant's CCAR-145 MOC or CCAR-145 exposition (i.e. the CCAR-145 maintenance management manual);
 - (ii) The revised CAAS Supplement reflecting the proposed change.
- (c) Pay the applicable fee in the Twelfth Schedule of the ANO for the application made in paragraph 5.1.

6 SURVEILLANCE OF PARTICIPATING AMO

- 6.1 CAAC will conduct the surveillance of the participating AMO located in China.
- 6.2 CAAS will conduct the surveillance of the participating AMO located in Singapore.
- 6.3 Either Authority may, with reasonable prior notification,
- (a) Inspect the approved maintenance organisations to investigate safety issues;
or
 - (b) Co-participate in the surveillance activities (e.g. audits and inspections) of the participating AMO.
- 6.4 The participating AMO will bear the costs and expenses incurred for the activities mentioned in paragraph 6.3.

7 LIST OF PARTICIPATING ORGANISATIONS UNDER THE TA-AM

- 7.1 The participating approved maintenance organisation will be included in the list of SAR-145 maintenance organisations that can be found on the CAAS website at www.caas.gov.sg.

APPENDIX 1: GUIDANCE FOR DEVELOPING THE CAAS SUPPLEMENT

1. The purpose of the CAAS Supplement is to set forth the procedures, means, and methods of the SAR-145 Approved Maintenance Organisation (AMO) to fulfill with the conditions specified in the Annex 1 of CAAC-CAAS TA-AM and its implementation procedures.
2. Compliance with its contents will assure compliance with the CAAC-CAAS TA-AM, which is a prerequisite to obtaining and retaining the SAR-145 Maintenance Organisation Approval.
3. When developing the CAAS Supplement, it is important to ensure that it is customized to each organisation to demonstrate compliance and it should not merely contain policy statements.
4. The CAAS Supplement should address the following:
 - (a) What must be done?
 - (b) Who should do it?
 - (c) When must it be done?
 - (d) Where must it be done?
 - (e) How must it be done?
 - (f) Which procedure(s)/form(s) should be used?
5. References to the CAAC Maintenance Management Manual (MMM) are acceptable to reduce redundant procedures as long as the references are clearly identified.
6. The contents of the CAAS Supplement must follow the format headings and contain the information as stated in the example of the CAAS Supplement given below. The required contents that do not apply to the SAR-145 AMO's operations must be included in the CAAS Supplement and stated as *Not Applicable*.

EXAMPLE OF CAAS SUPPLEMENT TO THE CAAC MMM

(The cover page of the CAAS Supplement to the CAAC MMM must include the following)

CIVIL AVIATION AUTHORITY OF SINGAPORE
APPROVED MAINTENANCE ORGANISATION SUPPLEMENT TO THE CAAC MMM
FOR THE
SAR-145 MAINTENANCE ORGANISATION APPROVAL
GRANTED UNDER THE CAAC-CAAS TA-AM

COMPANY NAME

CAAC CCAR-145 CERTIFICATE NUMBER: _____

CAAS SAR-145 APPROVAL NUMBER: _____

FACILITY ADDRESS

CAAC MMM Document Number: _____	
CAAS Supplement Document Number: _____	Issue/Revision Number: _____

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LIST OF EFFECTIVE PAGES

A List of Effective Pages (LEP) is used to ensure that every manual contains current, correct information. The LEP shows the revision status of each page. By checking the status of each page, users can ensure their information is up to date.

To facilitate the tracking of changes, each page should be identified by the part number, page number, date of issue or date of latest amendment/revision, and amendment/revision number (if applicable). The latest amendment/revision on a page should be highlighted by marginal lines against the amended areas on the left hand side of the page.

The CAAS Supplement must provide a means to identify each page of the supplement has been submitted to the CAAS for acceptance. This shall be in the form of an LEP, with each page numbered and either dated or marked with a revision number.

<u>PAGE</u>	<u>REVISION</u>	<u>DATE</u>	<u>PAGE</u>	<u>REVISION</u>	<u>DATE</u>
1	0	01 Jan 2020	4	0	01 Jan 2020
2	0	01 Jan 2020	5	0	01 Jan 2020
3	:	:	6	:	:

CAAS Supplement: [Document Number]

SAR-145 AMO SIGNED: _____ CAAS SIGNED: _____
 DATE: _____ DATE: _____

RECORD OF REVISION

<i>Amendment Number</i>	<i>Amendment Date</i>	<i>Details</i>	<i>Inserted By</i>	<i>Insertion Date</i>
:	:	:	:	:

1. INTRODUCTION

Within this section, the SAR-145 AMO must indicate that the CAAS Supplement, in conjunction with other chapters of the approved CAAC Maintenance Management Manual, defines the organisation and procedures upon which compliance with applicable regulations are based. Its content should address the following:

- a) State that the organisation shall operate under the provision of CAAC-CAAS TA-AM to obtain certification and renewal as a SAR-145 approved maintenance organisation for performing maintenance on Singapore registered civil aircraft and/or aeronautical products intended for fitment onto Singapore registered civil aircraft.
- b) State that the validity and scope of its SAR-145 approval is dependent on:
 - i. The validity of its CCAR-145 Maintenance Organisation Certificate and the associated work scope approved by CAAC; and
 - ii. The AMO remains in compliance with the TA-AM and its implementation procedures.
- c) State that the CAAS Supplement is intended to inform all staff of the AMO of additional considerations that need to be taken into account when working in accordance with the TA-AM and its implementation procedures.
- d) Identify the person (name, title and contact details) who will act as the liaison between the maintenance organisation and the CAAS. This liaison shall ensure compliance with the provisions of the CAAS Supplement.

2. ACCOUNTABLE MANAGER'S COMMITMENT STATEMENT

The corporate commitment by the Accountable Manager shall be expressed in the form of a signed statement indicating that he/she understands and will ensure that the organisation will comply with the CCAR-145 regulations, the CAAC-CAAS TA-AM and its implementation procedures.

The Accountable Manager's statement should embrace the intent of the following paragraph and it is recommended to be used without amendment. Any modification to the statement should not alter the intent. Whenever the Accountable Manager is changed, it is important that the new Accountable Manager signs the statement at the earliest opportunity as part of his/her acceptance by the CAAS.

"This supplement, along with the CAAC Maintenance Management Manual and any associated referenced manuals, define the organisation and procedures upon which the CAAS SAR-145 approval is granted under the terms of the Technical Arrangement on Aviation Maintenance (TA-AM) between the Civil Aviation Administration of China (CAAC) and the Civil Aviation Authority of Singapore (CAAS). These procedures are approved by the undersigned and must be complied with, as applicable, when work/orders are being progressed under the terms of the SAR-145 approval.

As the Accountable Manager, I undertake to ensure that this organisation fully understands that the issuance of the SAR-145 Maintenance Organisation Approval is subject to compliance with the CAAC-CAAS TA-AM, its implementation procedures and the CCAR-145 regulations. Failure in doing so may result in the denial of renewal, suspension, or revocation of the SAR-145 Maintenance Organisation Approval.

It is accepted that these procedures do not override the necessity of complying with any new or amended regulations published by the CAAC and/or the CAAS from time to time where these new or amended regulations are in conflict with these procedures.

It is agreed that [name of company] will provide the CAAC and CAAS personnel with unimpeded access to its facilities for the purpose of determining compliance with the CAAC-CAAS TA-AM, its implementation procedures and/or any investigations for suspected violations.

I agree to ensure that this CAAS Supplement will be maintained and kept current by this organisation and is accessible to all personnel. I further agree to submit revisions to this CAAS Supplement to the CAAC for acceptance before implementing any such revisions.

It is understood that the CAAS will approve this organisation if the CAAS is satisfied that the procedures are being followed and work standards maintained. It is further understood that the CAAS reserves the right to suspend, limit, or revoke the SAR-145 approval of the organisation if the CAAS has evidence that procedures are not followed or standards not upheld.

Signed _____

Dated _____

Accountable Manager and _____ (quote position)

For and on behalf of _____ (quote organisation's name)"

3. SCOPE OF WORK

Within this section, the SAR-145 AMO shall specify the range of work carried out at each approved location within the scope of each approval rating as shown in the SAR-145 certificate – Schedule of Approval. This section should also relate to approved locations in such a way that it can be clearly seen what tasks are performed at which locations.

It is important to note that the scope of work and level of capability authorised under the CAAS SAR-145 ratings or limitations shall not exceed the AMO's CAAC CCAR-145 ratings and limitations.

The degree of definition within this section should provide clear identification of the maintenance activities that the SAR-145 AMO is capable of and the limitations imposed whilst performing the intended maintenance activities under the SAR-145 approval.

Using a Capability List (CL) is an effective way of providing detailed definition of the scope of work. The CL must identify the make, model, or other nomenclature designated by equipment manufacturer and the depth of maintenance work to which the SAR-145 AMO is capable to perform. References can be made to a separately controlled CL so long as the procedure for controlling the CL is accepted by the CAAC and there is a clear

identification of difference in approval for scope of work under the SAR-145 approval and the CCAR-145 approval.

In the case of aircraft maintenance, the relevant paragraph in this section of the CAAS Supplement must not be referenced to another separate document. It must be reflected within the CAAS Supplement and it must show what level of work is undertaken at each station. It must also include the limitations, which will state the aircraft series or type and/or maintenance task(s), i.e., Base Maintenance or Line Maintenance.

Any NDT activities or special processes that are carried out internally and not necessarily included on the SAR-145 Approval Certificate should also be reflected within this section of the CAAS Supplement.

4. NOTIFICATION PROCEDURE REGARDING CHANGES TO THE ORGANISATION'S ACTIVITIES / APPROVAL / LOCATION / PERSONNEL AFFECTING SAR-145 APPROVAL

Any significant changes to the management, organisation, resources, facilities, and scope of work will affect the conditions under which the approval was granted and has been allowed to continue. This section must provide details on how the company would go about notifying the CAAS of the following changes that may affect its SAR-145 approval:

- a) Name of the organisation;
- b) Location of the organisation;
- c) Additional locations of the organisation;
- d) Change or addition of ratings;
- e) Accountable Manager, Quality Manager, and any other management personnel listed in the SAR-145 AMO's CAAS Supplement;
- f) The facilities, equipment, tools, materials, procedures, and work scope that could affect the approval.

5. ACCESS BY CAAC AND CAAS

Within this section, the SAR-145 AMO shall specify that CAAC and CAAS must be allowed access to their organisation for the purpose of assuring compliance with procedures and standards and to investigate specific problems.

There must also be an indication that, in case of a serious non-compliance with regulations or established standards, the SAR-145 AMO must accept that it may be subject to enforcement action from CAAS. In addition, it must be indicated that any cost incurred as a result of any investigation activities involving CAAS' participation shall be borne by the organisation.

6. CAAS SUPPLEMENT AMENDMENT PROCEDURES

Within this section, the SAR-145 AMO shall describe the procedures for management of the CAAS Supplement amendment. The SAR-145 AMO must ensure that the CAAS supplement remains current and its procedures should address the following:

- a) Identify the sources of proposed amendments within the organisation.
- b) Provide a summary of referenced documents, including lower order documents, constituting the total CAAS Supplement.
- c) Identify the person responsible for amending and submitting the CAAS Supplement to the CAAS.

Note: Amendments to the CAAS Supplement may be initiated from any part of the SAR-145 AMO, but it must be monitored for compliance with relevant regulatory requirements by the Quality Manager

- d) Procedures for recording revisions, their distribution within the organisation and the method by which the AMO provide the revision to the CAAS before implementation.
- e) Procedures for the control and amendment of the CL.

7. ACCEPTABLE AIRCRAFT COMPONENTS / PARTS / MATERIALS

Within this section, the SAR-145 AMO shall describe the procedures for ensuring only aircraft components/parts/materials, that are acceptable by CAAS, can be fitted onto a Singapore registered aircraft.

- a) On the use of new aircraft components/parts/materials that are acceptable to CAAS, the SAR-145 AMO should refer to SAR-145 Subpart D Appendix 1.
- b) On the use of maintained aircraft components/parts/materials that are acceptable to CAAS, the SAR-145 AMO should refer to CAAS Advisory Circular AC145-3.

8. MAINTENANCE DATA

The SAR-145 AMO must use applicable current maintenance data in the performance of maintenance.

Within this section of the CAAS Supplement, the SAR-145 AMO will describe procedures to ensure that only the following applicable maintenance data is used during the maintenance on a Singapore registered aircraft and/or aeronautical products intended for fitment onto a Singapore registered aircraft:

- i. Any applicable requirement, procedure, Airworthiness Directive (AD), airworthiness notice, or information issued by the CAAS.
- ii. Any applicable AD issued by the relevant authority of the State of Design.
- iii. Any applicable data, such as, but not limited to, maintenance and repair manuals, issued by an organisation under the approval of the CAAS, including type certificate (TC) and Supplemental Type Certificate (STC) holders and any other organisation approved to publish such data by the CAAS.

- iv. Unless specified otherwise by the CAAS, any applicable data, such as, but not limited to, maintenance and repair manuals, issued by an organisation under the approval or authority of the State of Design.

9. REPAIR AND MODIFICATION DATA

For any other maintenance, repairs, or modifications outside the scope of the applicable maintenance data, the SAR-145 AMO must provide details to ensure that only the approved data, that are acceptable to CAAS, are used. The SAR-145 AMO should refer to CAAS Advisory Circular AC21-1 for relevant guidance.

10. AIRWORTHINESS DIRECTIVES (AD) CONTROL PROCEDURES

Within this section, the SAR-145 AMO shall describe how it will:

- a) Ensure compliance with all ADs issued by the CAAS or the relevant authority of the State of Design, applicable to the work performed under the SAR-145 approval.
- b) Manage and control the distribution and use of ADs issued by the CAAS or the relevant authority of the State of Design.
- c) Ensure that applicable ADs issued by the CAAS or the relevant authority of the State of Design will be made available to its personnel when they perform work under its SAR-145 approval.
- d) Ensure customer approval / request is provided for the performance of applicable ADs issued by the CAAS or the relevant authority of the State of Design.

Note: The work orders should clearly describe the scope of work to be accomplished from the customer prior to beginning work. If the repair station does not comply with an applicable AD, the record of its non-compliance must be documented in the item's maintenance records.

11. MAINTENANCE DOCUMENTATION IN USE AND ITS COMPLETION

Within this section, the SAR-145 AMO shall describe how it will ensure completeness of, and compliance with, the customer or operator's work order, including the accomplishment of applicable ADs issued by the CAAS or the State of Design and other notified mandatory instructions.

12. RELEASE TO SERVICE PROCEDURE

Within this section, the SAR-145 AMO must establish procedures to ensure an appropriately authorised certifying staff will issue a Certificate of Release to Service (CRS) on behalf of the SAR-145 AMO when satisfied that all maintenance required by the customer of the aircraft or aircraft component has been properly carried out by the SAR-145 AMO. The procedures should address the following key topics.

- a) Issuance of CRS

The following are conditions that will require a CRS to be issued:

- 1) A CRS is necessary before flight at the completion of any package of maintenance specified by the aircraft operator in accordance with Division 7 of the Air Navigation (91-General Operating Rules) Regulation 2018. The package of maintenance may include any one or combination of the following elements: a check or inspection from the operator's aircraft maintenance programme, AD, overhauls, repairs, modifications, aircraft component replacements, and defect rectification.
- 2) A CRS is necessary before flight at the completion of any defect rectification whilst the aircraft operates flight services between scheduled maintenance.
- 3) A CRS is necessary at the completion of any maintenance on an aircraft component whilst off the aircraft.

In respect of aircraft line maintenance under the approval class rating in category A, the inspection and release to service should be carried out as follows:

- i. The authorised person who carried out the scheduled line maintenance tasks and unscheduled defect rectification should carry out the inspection function. Such person should issue a release to service for the tasks completed only when satisfied by self-inspection that the tasks have been properly carried out in accordance with the approved maintenance instructions.
- ii. If the aircraft maintenance task(s) requires a specific inspection in addition to the initial inspection performed, this duplicate inspection should be accomplished by another competent person who should certify for the second inspection when satisfied.

In respect of aircraft base maintenance under the approval class rating in Category A, the maintenance work and the certification of release to service for the aircraft should be carried out as follows:

- i. The authorised person who carried out the particular base maintenance task should sign that he/she has accomplished the task only when satisfied by self-inspection that the task has been properly carried out in accordance with the approved maintenance instructions. Such task sign-offs support the issue of a release to service by the authorised base maintenance certifying staff following base maintenance.
- ii. If the aircraft maintenance programme/task(s) requires a specific inspection in addition to the initial inspection performed, this duplicate inspection should be accomplished by another competent person who should certify for the second inspection when satisfied.
- iii. The base maintenance certifying staff should issue release to service for the aircraft when satisfied that the complete maintenance process has been carried out in accordance with the approved procedures.

In respect of aircraft engine and component workshop maintenance under the approval class rating in Category B and Category C respectively, the inspection and release to service should be carried out as follows:

- i. The person who carries out a maintenance task specified in the maintenance instructions should sign that he/she has accomplished the task only when satisfied by self-inspection that the task has been properly carried out in accordance with the approved maintenance instructions.
- ii. The workshop component certifying staff should issue release to service (including the ARC as appropriate) for the aircraft component after the completion of all tasks when satisfied that the complete maintenance process has been carried out in accordance with the approved procedures, including additional inspection, when required.
- iii. The ARC identified as form CAAS(AW)95 constitutes the aircraft component CRS when an aircraft component is maintained off an aircraft and in a component workshop environment.

b) Details on a CRS

A CRS must contain basic details of the maintenance carried out, the date such maintenance was completed, and the identity, including approval reference (AWI/XXX), of the SAR-145 AMO and certifying staff issuing such a certificate. The SAR-145 AMO must establish procedures to ensure that the following details are provided within the CRS issued by the authorized certifying staff on behalf of the SAR-145:

- i. The CRS must contain the following statement:

“Certifies that the work specified, except as otherwise specified, was carried out in accordance with SAR-145 and the Air Navigation Order and in respect to that work the aircraft/aircraft component is considered ready for release to service.”

The Release to Service statement in Block 19 of the ARC (CAAS(AW)95 form) is slightly at variance with the above statement in that it refers to particular boxes on the form.

- ii. The CRS should relate to the task specified in the manufacturer’s or AOC holder’s instruction or the aircraft maintenance programme, which itself may cross-refer to a manufacturer’s/operator’s instruction in a maintenance manual, service bulletin, etc.
- iii. Where such instructions include a requirement to ensure a dimension or test figure is within a specific tolerance as opposed to a general tolerance, the dimension or test figure should be recorded unless the instruction permits the use of GO/NO GO gauges. It is not normally sufficient to state that the dimension or the test figure is within tolerance.
- iv. The date such maintenance was carried out should include when the maintenance took place relative to any life or overhaul limitation in terms of date/flying hours/cycles/landings, etc., as appropriate.

- v. When extensive maintenance has been carried out, it is acceptable for the CRS to summarise the maintenance so long as there is a unique cross-reference to the work-pack containing full details of maintenance carried out. Dimensional information should be retained in the work-pack record.

The person issuing the CRS should use his normal signature except in the case where a computer release to service system is used. In this latter case, the CAAC and the CAAS will need to be satisfied that only the particular person can electronically issue the release to service.

c) Certification of Maintenance (Incomplete Maintenance)

When a SAR-145 AMO approved to maintain the aircraft is unable to complete all maintenance required, the aircraft operator must then be informed and agree to the deferment of the uncompleted tasks before the CRS is issued by the AMO. Details of the deferred tasks, and the aircraft operator's authorization for deferment, must be endorsed on the CRS.

In the event that the maintenance required by the aircraft operator could not be completed due to insufficient aircraft maintenance downtime for the scheduled check or by virtue of the condition of the aircraft requiring additional maintenance downtime, the SAR-145 AMO must establish procedures to:

- i. Inform the aircraft operator that all maintenance required to be accomplished cannot be achieved within the operator's limitation.
- ii. Seek agreement from the aircraft operator to defer the required maintenance task(s).
- iii. Record details of such deferment onto the CRS prior to issuance of the CRS.

The procedure should state what action the mechanic, supervisor, and certifying staff should take to bring the matter to the attention of the relevant department or person responsible for technical coordination with the aircraft operator so that the issue may be discussed and resolved with the aircraft operator.

d) Hazard to Flight Safety

Notwithstanding the conditions for the issuance of the CRS as mentioned in the above paragraphs, a CRS must not be issued in the case of any non-compliance known to the SAR-145 AMO that could hazard flight safety.

A non-compliance that could hazard flight safety means any instances where safe operation could not be assured or which could lead to an unsafe condition. It typically includes, but is not limited to, significant cracking, deformation, corrosion or failure of primary structure, any evidence of burning, electrical arcing, significant hydraulic fluid or fuel leakage, and any emergency system or total system failure. An AD overdue for compliance is also considered a hazard to flight safety.

The SAR-145 AMO must establish procedures to ensure that the CRS must not be issued under such circumstances.

13. MANDATORY REPORTING OF DEFECTS TO THE CAAS/OPERATOR/ MANUFACTURER

Within this section, the SAR-145 AMO must establish procedures to report to the CAAS and the aircraft type certificate holder on any condition of the aircraft or aircraft component identified by the SAR-145 AMO that could seriously hazard the aircraft. The SAR-145 AMO should refer to SAR-145, IEM145.60, for list of reportable safety matters.

The content should include:

- a) Procedures in ensuring that such reports are made as soon as practicable, but in any cases within 3 days of the SAR-145 AMO identifying the condition to which the report relates.
- b) Procedures in ensuring that the reports are made in a form and manner prescribed by the CAAS and contain all pertinent information about the condition known to the SAR-145 AMO. This can be achieved by submitting the report on form CAAS(AW)152.

14. CONTRACTED/SUBCONTRACTED WORK

Within this Section, the SAR-145 AMO shall establish the control procedures for situations where it intends to engage the maintenance services of other organisation.

A SAR-145 AMO, performing work on Singapore registered aircrafts and/or components intended for fitment onto Singapore registered aircrafts under the CAAC-CAAS TA-AM, must adhere to the following in relation to contracted/subcontracted work activities.

- 1) The SAR-145 AMO may contract work to other SAR-145 AMOs located in China. Where the work is contracted to organisation outside of China, the organisation shall be approved by CAAS or be otherwise acceptable to CAAS under the terms of an existing bilateral maintenance agreement with the Competent Authority of the country in which the organisation is located.
- 2) The SAR-145 AMO may subcontract work to any other organisation provided it extends its quality system to that organisation and that the work is within the scope of the ratings and limitations of the SAR-145 AMO. It is the SAR-145 AMO's responsibility to ensure that the customer is informed when the subcontracting work is required.

The content should address/include the following:

- a) Evaluation process and selection criteria for acceptance of new contractors/subcontractors
- b) Management of purchase orders which should detail the work request, the maintenance data to be provided (for subcontractors) and the maintenance documentation to be returned after work completion.
- c) Receiving inspection procedures, particularly for the work from subcontractors.

- d) Quality monitoring of subcontractors which include audit inspections, frequency and records.
- e) List of contractors/subcontractors, if applicable. The list must contain their name, address, and maintenance function.
- f) Procedure to ensure there is provision to allow the CAAC and the CAAS unimpeded access to facilities of subcontractors during the period when such activities are ongoing.

15. INTERNAL QUALITY ASSURANCE SYSTEM

Within this Section, the SAR-145 AMO must describe how their internal quality assurance system will be extended to include continuous monitoring for compliance with the CAAC-CAAS TA-AM.

The content should address/include the following:

- a) Independent audit to monitor for compliance with the CAAC-CAAS TA-AM and adequacy of the procedures in CAAS Supplement. The audit schedule and methods to document the audit should be included.

The independent audit should ensure all aspects of the compliance check are conducted every 12 months and this may be carried out as a complete single exercise or subdivided over the 12-month period in accordance with a scheduled plan. The audit should also sample check one product per product line under each class rating as specified in the AMO's SAR-145 approval schedule.

- b) Method and timeframe to correct any findings / discrepancies / identified items arising from independent audits.
- c) Quality feedback reporting system to ensure all relevant management personnel, and importantly, the Accountable Manager are kept informed on all compliance matters.
- d) Management of records from independent audits and quality feedback system.

16. PERSONNEL TRAINING PROCEDURES

Within this Section, the SAR-145 AMO must describe the procedures in ensuring all relevant personnel in the maintenance organisation are trained and kept up-to-date on the TA-AM implementation procedures, applicable CCAR-145 regulations and the organisation procedures in the CAAS Supplement.

The procedures should cover initial and continuation training program for the relevant personnel. Continuation training should be of sufficient duration in each 2-year period and it may be split into a number of separate elements.

The procedures should also include assessment of competency for certifying staff in ensuring that they are thoroughly familiar with the CAAS Supplement procedures and the air operators' procedures prior to granting of their authorizations.

17. CONTRACTED AOC OPERATORS

The AOC is a certificate granted to any person or operator whose principal place of business is in Singapore to operate an aircraft for the purpose of public transport operations. Within this section, the SAR-145 AMO will list such operators for whom maintenance is provided, with details of the types of aircraft (and/or engines/APU) and the scope of work undertaken.

18. SAMPLE OF FORMS AND DOCUMENTS

Within this section, the SAR-145 AMO must include those forms and documents with which it controls and records its maintenance work and procedures.

APPENDIX 2: SAR-145 APPROVAL APPLICATION PACKAGE

For the purpose of applying a SAR-145 Maintenance Organisation Approval, the following list of documents, as applicable, shall be submitted.

INITIAL APPLICATION

1. Formal Application Letter
2. Letter of Intent (LOI)
3. CAAS(AW)21 Application Form
4. Copy of current CCAR-145 Maintenance Organisation Certificate (MOC)
5. CCAR-145 Maintenance Management Manual (MMM) and CAAS Supplement [See Appendix 1 for Guidance for developing the CAAS Supplement]
6. Capability List (CL)

RENEWAL APPLICATION

1. CAAS(AW)21 Application Form
2. Copy of current CCAR-145 Maintenance Organisation Certificate (MOC).
3. CCAR-145 MMM and CAAS Supplement [See Appendix 1 for Guidance for developing the CAAS Supplement]**
4. Capability List (CL)**
5. Maintenance Organisation Annual Report [See Appendix 3 for report format]

** Denotes documents that require submission if a revision has occurred since last renewal.

CHANGE/AMENDMENT APPLICATION

1. CAAS(AW)21 Application Form
2. Copy of current CCAR-145 Maintenance Organisation Certificate (MOC)
3. CCAR-145 MMM and CAAS Supplement***
4. Capability List (CL)***
5. Letter of Intent (LOI)***
6. Other supporting documents, depending on request

*** Denotes documents that may require submission depending on change request.

APPENDIX 3: MAINTENANCE ORGANISATION ANNUAL REPORT

SAR-145 approved maintenance organisations, which are based in China and participating in the CAAC-CAAS TA-AM, are to complete and submit the following report to CAAS when applying for renewal of SAR-145 approval.

Approval holder details		
Organisation name and AWI number:		
Headquarters location:		
Other CAAS approved maintenance locations, if any:		
CAAS approved ratings:		
Summary of past maintenance activities (since last approval renewal)		
	For A-rated AMO,	
1)	Are there any maintenance certification performed on Singapore registered aircraft since last renewal?	<i>[If yes, please provide evidence of a completed SAR-145 CRS release.]</i>
	For B-rated AMO,	
2)	Are there any CAAS(AW)95 releases since last renewal?	<i>[If yes, please provide evidence of a completed CAAS(AW)95 release.]</i>
	For C-rated AMO,	
3)	Are there any CAAS(AW)95 releases since last renewal?	<i>[If yes, please provide evidence of a completed CAAS(AW)95 release.]</i>
	For D-rated AMO,	
4)	Are there any CAAS(AW)95 releases since last renewal?	<i>[If yes, please provide evidence of a completed CAAS(AW)95 release.]</i>
Summary of capability change (since last approval renewal)		
1)	New approval rating extended / removed:	

2)	New aircraft types / engine types added / removed:	
3)	New approved location added / removed:	
4)	Changes of key management personnel	
5)	Number of certifying staff added / removed:	

Unairworthy condition reporting made to CAAS (since last approval renewal)

Please provide a summary of incidents / accidents that were reported and the corresponding mitigating actions.

[Attach separate sheet, if necessary.]

Compliance to CCAR-145 and CAAC-CAAS TA-AM (since last approval renewal)

Please provide following details:

- Date of last surveillance audit by CAAC; and
- Status of any major findings issued by CAAC, including the corresponding corrective actions.

[Attach separate sheet, if necessary.]