# TECHNICAL ARRANGEMENT ON MAINTENANCE BETWEEN THE CIVIL AVIATION AUTHORITY OF THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND AND THE CIVIL AVIATION AUTHORITY OF SINGAPORE

The Civil Aviation Authority of the United Kingdom of Great Britain and Northern Ireland (UKCAA) and the Civil Aviation Authority of Singapore (CAAS) (each an "Authority" and collectively as "the Authorities"),

Considering the Memorandum of Understanding (MoU) signed on 18 December 2020, which provides for Technical Arrangements on specific technical areas of cooperation and activities,

**Confirming** the intention of the Authorities, after taking into account their obligations under their respective regulations, standards, practices, procedures and systems, to establish a cooperation framework on maintenance organisations,

**Willing** to reduce the economic burden imposed on the aviation industry by technical inspections,

Considering that they have conducted technical assessments and developed an understanding of each other's regulations, standards, practices, procedures and systems with regard to airworthiness approvals and maintenance certification of civil aeronautical products, approval and monitoring of maintenance organisations and approval of persons,

Considering that their respective national laws, regulations, standards, practices, procedures and systems for the approval and performance of aviation maintenance, and approved maintenance organisations, are sufficiently comparable to permit the mutual acceptance of maintenance certification systems, subject to the procedures described in this Technical Arrangement for Maintenance,

Have agreed to conclude this Technical Arrangement on Maintenance ("TA-M") as follows:

# 1. **DEFINITIONS**

For the purposes of this TA-M:

'Accountable manager' means the manager who has corporate authority for ensuring that all maintenance required by the customer can be financed and carried out to the standard required by the Authorities.

"Aircraft" means any machine that can derive support in the atmosphere from the reactions of the air other than reactions of the air against the Earth's surface.

"Approved Maintenance Organisation ("AMO") means the holder of a SAR-145 certificate or a UKCAA Part 145 certificate, as the case may be.

"Civil aeronautical product" means any civil aircraft, or aircraft engine, propeller, appliance, part or component to be installed thereon.

"Convention" means the Convention on International Civil Aviation signed in Chicago on 7 December 1944.

"Customer" is the legal or natural person who contracts with the AMO to perform work on the aircraft or engine.

"Maintenance" means the performance of tasks required to ensure the continued airworthiness of a civil aeronautical product, including anyone, or combination of the following:

(a) overhaul,

- (b) inspection, replacement,
- (c) defect rectification;
- (d) the embodiment of a modification or repair.

"Maintenance Organisation Exposition (MOE)" is a document approved by the respective Authority that sets out the procedures, means and methods of the AMO.

"Overseeing Authority" means the Authority having jurisdiction over an AMO performing maintenance functions covered by this TA-M.

"Responsible Authority" means the Authority having responsibility pursuant to the Convention for the airworthiness of a civil aeronautical product maintained pursuant to this TA-M, or a civil aeronautical product upon which parts that have undergone maintenance pursuant to this TA-M are to be installed.

"SAR" means Singapore Airworthiness Requirements.

"SAR-145 certificate" means a certificate issued under the Singapore Air Navigation Order, for the continuing airworthiness of civil aeronautical products.

"Sampling Inspection System (SIS)" means the periodic surveillance by an Authority to determine continuing compliance with the appropriate standards.

"Singapore aircraft" means an aircraft which is registered in the Republic of Singapore.

"Supplement" means a document appended to the MOE which defines the requirements that the AMO must comply with in order to participate in the TA-M.

"UK aircraft" means an aircraft which is registered in the United Kingdom of Great Britain and Northern Ireland.

"UKCAA Part 145 approval" means an approval issued under Annex II to Regulation (EU) 1321/2014, for the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of AMOs and personnel involved in these tasks (Regulation 1321/2014) as applicable in UK law pursuant to the UK's European Union (Withdrawal) Act 2018 and amended by the Aviation Safety (Amendment etc.) (EU Exit) Regulations 2019.

#### 2. OBJECTIVE

- (a) The objective of this TA-M is to outline the provisions and conditions for the reciprocal acceptance and recognition by the Authorities of each other's aviation safety programme with regard to the performance and certification of aircraft maintenance.
- (b) Nothing in this TA-M is intended to create a binding legal agreement, or to supersede, prejudice or otherwise derogate from the respective laws and regulations, administrative practices or procedures, or administrative or adjudicative decision-making of the Authorities. This TA-M will not affect the rights and commitments of the Authorities under other international instruments.

## 3. RECOGNITION OF VALIDITY

- (a) In order to avoid duplication of inspections and evaluations to the maximum extent, each Authority may give the same validity to:
  - (i) The other Authority's inspection and evaluation findings for the approval of maintenance organisations as to its own inspection and evaluation findings; and

(ii) The other Authority's system for the release to service of civil aeronautical products after maintenance as to its own release system.

# 4. SUB-SECTIONS

- (a) The Authorities understand that this TA-M is sub-divided into three Sections:
  - (i) Section A: outlines the Authority interaction between UKCAA and CAAS;
  - (ii) Section B: outlines the steps necessary for a UKCAA Part 145 AMO with its principal place of business located in UK to maintain civil aeronautical products under the regulatory control of CAAS; and
  - (iii) Section C: outlines the steps necessary for a SAR-145 AMO located in Singapore to maintain civil aeronautical products under the regulatory control of UKCAA.

# 5. SCOPE

- (a) The Authorities understand that this TA-M applies to:
  - (i) The approval and monitoring of AMOs;
  - (ii) The reciprocal approval of civil aeronautical product maintenance for AMOs that meet the conditions as defined in Section B and C of this TA-M;

- (iii) The exchange of information regarding maintenance standards and maintenance oversight systems;
- (iv) Co-operation and assistance with respect to maintenance of civil aeronautical products; and
- (v) Provisions for periodic evaluations, also described as Sampling Inspection System (SIS), of the working relationship between them.

# (b) The Authorities understand that:

- (i) The acceptance of maintenance work under this TA-M will only apply in respect of work performed by AMOs which have their principal place of business within the territorial boundaries of the Overseeing Authority;
- (ii) An AMO approved by an Authority to perform maintenance on that Authority's civil aeronautical products, or sign a maintenance release after the maintenance, will not perform maintenance on the other Authority's civil aeronautical products, or sign a maintenance release after the maintenance, within the territorial boundaries of the other Authority, unless otherwise agreed in writing:
- (iii) The territorial boundaries mentioned in 5(b)(ii) means, in relation to the United Kingdom, the territory of Great Britain and Northern Ireland and in relation to Singapore, the Republic of Singapore; and
- (iv) The certification of maintenance performed on civil aeronautical products under this TA-M will be carried out in accordance with the requirements of the UKCAA Part 145 and SAR-145, which provide for equivalent outcomes. The AMO performing maintenance under

this TA-M will issue a UKCAA Form 1 for the certification of maintenance performed on civil aeronautical products under the jurisdiction of the UKCAA, or a Form CAAS(AW)95 for the certification of maintenance performed on civil aeronautical products under the jurisdiction of the CAAS.

# **SECTION A: AUTHORITY INTERACTION**

# 1. BILATERAL ARRANGEMENT FOR PROMOTION OF AVIATION SAFETY

The Authorities recommend that AMOs and personnel maintaining civil aeronautical products under their respective jurisdictions be familiar with and follow this TA-M.

# 2. AUTHORISATION

- (a) Unless they jointly decide otherwise in writing, an Authority will not issue approvals to AMOs located within the territory of the other Authority, except as provided for in this TA-M.
- (b) Unless otherwise decided by the Authorities, this TA-M only applies to AMOs that are located within the territorial boundary of each Authority.
- (c) The Authorities may allow emergency or non-routine maintenance on civil aeronautical products to be performed outside the territories specified in this TA-M.
- (d) In the case of a line station that resides outside of the territorial boundary of the UK or Singapore, the Authorities will determine acceptability of the line station under this TA-M on a case-by-case basis.

#### 3. ACCOUNTABILITY

(a) The Director, Safety and Airspace Regulation Group of the UKCAA and the Senior Director (Safety Regulation Group) of the CAAS, or any person acting in such capacity or holding an equivalent position in the respective Authority, will be the responsible persons for the administration and implementation of the provisions of this TA-M.

- (b) The Authorities designate the following as their offices for the technical implementation and coordination of this TA-M:
  - (i) for the UKCAA:

**Civil Aviation Authority** 

Safety & Airspace Regulation Group Aviation House

Beehive Ring Road

Crawley

West Sussex

RH6 0YR

UK

Telephone: +44 03301383196

BilateralSafetyArrangements@caa.co.uk

(ii) for CAAS:

Flight Standards Division

Civil Aviation Authority of Singapore

Singapore Changi Airport

P O Box 1

Singapore 918141

Telephone: +65 6542 1122

CAAS AM@caas.gov.sg

(c) Any disagreement regarding the interpretation or application of this TA-M will be resolved at the first instance by consultation between staff of the Authorities, and if there is no resolution, be escalated to the head of the department in charge of the implementation of the TA-M of the respective Authority.

# 4. COMMUNICATION AND INFORMATION

# (a) Periodic Meetings

- (i) The Authorities will discuss the implementation of this TA-M every 2 years or as jointly decided upon. Such discussions may also address the resolution of technical issues, continued improvements to the process, ongoing projects and changes in the AMOs, any revisions to the requirements, technical assistance requests and any other matters relevant to this TA-M.
- (ii) Such discussions may be conducted by meetings in person, virtually, by teleconference, or any other method, depending on the prevailing circumstances.

# (b) Notification of Changes

- (i) The Authorities will notify each other of proposed significant revisions to their relevant national laws and certification systems insofar as these revisions may have an impact on this TA-M.
- (ii) To the maximum extent practicable, the Authorities will offer each other an opportunity to comment on such revisions and will give due consideration to the comments. Accordingly, upon notice of such changes each Authority may request a meeting to review the need for amendment to this TA-M.

(iii) The Authorities will also advise each other of any significant changes to their organisations that affect the administration and implementation of the provisions of this TA-M, including the identity of the persons identified in Section A, Paragraph 3(b).

# (c) Urgent / Unusual Situations

Where urgent or unusual situations develop that are within the scope of this TA-M but are not specifically addressed herein arise, the Authorities will review and consult each other, and upon mutual consent, take appropriate action, including amending this TA-M where required.

# (d) Request for Information

Each Authority may request the disclosure or review of any data concerning any AMOs participating in the TA-M from the other Authority from time to time. Disclosure of information is subject to applicable statutory or other requirements relating to privacy or confidentiality, or both.

#### (e) Notification of Interested Parties

- (i) To advise potential UK clients, CAAS will make public on the CAAS website (https://www.caas.gov.sg/operations-safety/aircraft/maintenance-repair-overhaul) a list of Singapore AMOs recognised or approved under the provisions of this TA-M, for maintenance of civil aeronautical products under the jurisdiction of the UKCAA, with the information of the scope of ratings and limitations;
- (ii) To advise potential Singapore clients, the UKCAA will, on the UKCAA website (https://www.caa.co.uk/Commercial-

industry/Aircraft/Airworthiness/Organisation-and-maintenanceprogramme-approvals/List-of-approved-organisations/) publish a list of UK organisations approved under the provisions of this TA-M, for maintenance of civil aeronautical products under the jurisdiction of CAAS, with the information of the scope of ratings and limitations.

# (f) Information to Public

The Authorities will circulate the publications they respectively develop to:

- (i) Inform the public of the provisions of this TA-M, its appendices and any amendment thereto;
- (ii) Outline the regulatory requirements and special conditions necessary for the AMOs and personnel thereof to perform maintenance under this TA-M.

# 5. TECHNICAL CO-OPERATION

## (a) Technical Assistance

The Authorities will, as far as possible, provide to each other such technical assistance as are within the scope of this TA-M and subject to the availability of resources, and upon request, to further the purposes and objectives of this TA-M. Such areas of assistance may include but are not limited to:

(i) Information and support regarding maintenance of civil aeronautical products performed under this TA-M;

- (ii) Conducting and reporting on investigations at the request of the other Authority;
- (iii) Obtaining and providing data for reports where requested; and
- (iv) Co-development of standards, policies and practices related to maintenance.

# (b) Inspections and Audits

- (i) The Authorities will by mutual consent, and with reasonable prior notice, allow each Authority to observe the other Authority's inspections and audits of any AMOs that are participating this TA-M.
- (ii) Subject to reasonable prior notification, the Authorities will allow each Authority to conduct independent inspections on the other Authority's AMOs to investigate safety issues and confirm the effective application of this TA-M.

# (c) Investigation and Enforcement

- (i) The Authorities have decided, subject to applicable laws and regulations, to provide mutual co-operation and assistance in any investigation or enforcement proceedings of any alleged or suspected violation of any laws or regulations under the scope of this TA-M. In addition, each Authority will notify the other Authority promptly of any investigations when mutual interests are involved.
- (ii) The Authorities retain the right to take enforcement action on the AMOs within their jurisdiction participating in this TA-M. However, in some cases, an Authority may choose to review a remedial action

taken by the other Authority. The enforcement consultation process under this TA-M will be subject to a regular joint review by the Authorities.

# (d) Joint Investigation

Where it is not otherwise inappropriate to do so, the Authorities may jointly investigate any serious maintenance issues, including major defects and maintenance related incidents and accidents arising out of maintenance services provided under this TA-M, by mutual consent, and with reasonable prior notice.

# (e) Participation in this TA-M

- (i) The Authorities will notify each other of non-compliances with regulations and requirements set out in this TA-M that affect the ability of an AMO to comply with its provisions. The Authorities have decided that non-compliances will be corrected in a timely manner.
- (ii) The approval granted to an AMO to participate in this TA-M may be revoked by the Overseeing Authority at the request of the Responsible Authority, if the Responsible Authority determines, on reasonable grounds, that the AMO is not maintaining the safety standards required under its airworthiness regulations.
- (iii) The approval granted to an AMO to participate in this TA-M will be suspended when its UKCAA Part 145 or SAR-145 certificate has been suspended by the Overseeing Authority. The suspension will be lifted when the Overseeing Authority reinstates the AMO's UKCAA Part 145 or SAR-145 certificate.

- (iv) The approval granted to an AMO to participate in this TA-M will be automatically revoked when its UKCAA Part 145 or SAR-145 certificate has been revoked by the Overseeing Authority.
- (f) UKCAA and CAAS will notify each other promptly of any investigation or enforcement action, including limitation, revocation or suspension of UKCAA Part 145 or SAR-145 approval in respect of AMOs approved in accordance with this TA-M.

#### 6. SAMPLING INSPECTION SYSTEM

(a) The Authorities will develop a system to monitor the application of this TA-M and further their mutual understanding of each other's systems.

# 7. TA-M SUPPLEMENT REQUIREMENTS

- (a) The Authorities will require an AMO to ensure that its Maintenance Organisation Exposition (MOE) satisfies the conditions in Section B or C (as the case may be) of this TA-M;
- (b) The Supplement and the privileges associated with it will remain in effect unless, surrendered, suspended or revoked by either Authority;
- (c) Activities conducted in accordance with the Supplement need to be part of the AMO's regulatory oversight and surveillance schedule; and
- (d) The Supplement will be produced in the English language.

# 8. COST RECOVERY

- (a) The Authorities may charge a fee in accordance with their national policies to an AMO for the approval of its initial application and TA-M Supplement.
- (b) Each Authority will endeavour to ensure that any fees or charges imposed on a person or organisation whose activities are under the jurisdiction of the other Authority will be just, reasonable, and commensurate with the certification and/or surveillance services provided.
- (c) Each Authority will be permitted to recover from persons or organisations through fees and charges its costs related to services rendered or performed.
- (d) Neither Authority will impose fees and charges to the other for activities nor services provided under this TA-M.

# 9. ENTRY INTO OPERATION AND TERMINATION

- (a) The mutual understandings in this TA-M will enter effect on 1 January 2021.
- (b) Either Authority may terminate this TA-M at any time by giving written notice to the other Authority. This TA-M will terminate 60 days following the date of receipt of such notice unless such notice is withdrawn by mutual consent before the expiry of the 60-day period.

Signed in duplicate in London and Singapore on this 18th day of December 2020.

In London:

For the Civil Aviation Authority of the United Kingdom of Great Britain and Northern Ireland

In Singapore:

For the Civil Aviation Authority of Singapore

Robert Bishton

Director, Safety and Airspace

**Regulation Group** 

Alan Foo

Acting Senior Director (Safety Regulation Group)

#### SECTION B: REQUIREMENTS FOR UK-BASED AMOS

#### 1. INTRODUCTION

- (a) The Authorities understand that this Section sets out how a UK-based AMO will implement this TA-M.
- (b) An AMO that maintains a Singapore aircraft or an engine to be installed on a Singapore aircraft, or both, will establish a CAAS Supplement to show compliance with this Section B.
- (c) Compliance with the CAAS Supplement together with the UKCAA Part 145 MOE forms the basis by which an AMO may exercise the maintenance privileges under this TA-M.
- (d) A 'C' or 'D' rated UKCAA Part 145 AMO is not required to establish a CAAS Supplement and will be accepted by CAAS to permit the acceptance of the UKCAA maintenance certification if such an AMO fully complies with the conditions set out in this Section.

#### 2. CAAS RECOGNITION OF THE APPROVAL OF UK-BASED AMOS

The Authorities understand that:

- (a) an AMO intending to perform maintenance on civil aeronautical products under the regulatory control of CAAS will:
  - (i) send all applications for approval under this TA-M to the UKCAA in accordance with its published processes; and

(ii) ensure that applications for approval are accompanied by a completed application form and a copy of the proposed CAAS Supplement to their UKCAA Part 145 MOE. The CAAS Supplement is expected to clearly demonstrate how the AMO will meet any special conditions stated in this TA-M. Appendix 1 of Section B provides guidance on how to compile such a Supplement.

# (b) The AMO:

- (i) will be inspected in accordance with the regulatory oversight and surveillance schedule of the Authorities; and
- (ii) may not be eligible for approval under this TA-M if any outstanding findings or enforcement actions are imposed against the AMO.

# 3. INITIAL APPROVAL PROCESS

- (a) AMO actions
  - (i) To apply for approval under this TA-M:
    - (1) an AMO must have its principal place of business in the UK and hold a UKCAA Part 145 approval;
    - (2) establish a CAAS Supplement to their UKCAA Part 145 MOE in accordance with the Supplement guidance material in Appendix 1 of Section B of this TA-M; and
    - (3) submit a request in a form and manner prescribed by the UKCAA and a draft CAAS Supplement at least 90 days prior to the expected approval date.

(ii) The applicant does not need to send the above documents to CAAS.

# (b) The UKCAA actions

- (i) Upon the receipt of a request to approve a CAAS Supplement in accordance with this TA-M, the UKCAA will:
  - ensure that the applicant has access to the latest revision of this TA-M;
  - (2) review the application for completeness and legibility;
  - (3) review the CAAS Supplement and the AMO for compliance in accordance with this TA-M; and
  - (4) where the CAAS Supplement and AMO are found satisfactory, issue a letter to the AMO attesting that the CAAS Supplement is approved.
- (ii) The AMO's scope of ratings and limitations under the TA-M will not exceed that which is specified in the AMO's UKCAA Part 145 approval certificate and scope of approval.
- (iii) Once approved, the CAAS Supplement and associated privileges will remain in effect until surrendered, suspended or cancelled by the UKCAA.
- (iv) The UKCAA will update the list of AMOs that have been approved to participate in the TA-M.

## 4. CONTINUATION PROCESS

(a) AMO responsibilities

The Authorities understand that for the AMO to retain the privileges granted under the TA-M, the AMO will:

- continue to remain in compliance with its UKCAA Part 145 MOE and the CAAS Supplement, and perform all maintenance in accordance with the procedure described in their Supplement; and
- (ii) allow authorised officers from the Authorities unimpeded access to all facilities for oversight and surveillance purposes.

# 5. PERFORMANCE OF MAINTENANCE UNDER THIS TA-M

The Authorities understand that:

- (a) an AMO with a CAAS Supplement approved in accordance with this TA-M may certify maintenance performed on civil aeronautical products under the regulatory control of CAAS. The maintenance performed will be within the AMO's scope of ratings and limitations approval issued by the UKCAA; and
- (b) the certification of maintenance on civil aeronautical products pursuant to this TA-M will be accepted if:
  - (i) an AMO is recognised by CAAS based on the inspection and evaluation requirements of the UKCAA;

- the certification of maintenance performed on civil aeronautical products will be carried out in accordance with the requirements of the UKCAA Part 145 and SAR-145;
- (iii) all maintenance on Singapore civil aeronautical products are performed within the AMO's facilities, or within the facilities of the AMO's contracted and subcontracted organisations approved under the AMO's UKCAA Part 145 MOE, and the final certification of the civil aeronautical product, i.e. Authorised Release Certificate (ARC) issuance, is done by AMOs located in UK;
- (iv) the AMO uses aircraft components, parts and materials that are acceptable to CAAS, as described under Appendices 2 and 3 of Section B of this TA-M; and
- (v) the AMO ensures that major repairs performed on Singapore civil aeronautical products are acceptable to CAAS, in accordance with Appendix 4 of this Section B of this TA-M.

# 6. REPORTING OF UNAIRWORTHY CONDITIONS

# (a) AMO responsibilities

The AMO will report to CAAS, in accordance with SAR-145.60, any unairworthy conditions related to a civil aeronautical product being maintained. The report must be submitted within 72 hours after the discovery of any failure, defect or malfunction that affects the safety of the civil aeronautical product.

Form CAAS(AW)152 may be used for this purpose. The form is available at the following URL:

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

The email address is specified in Section A, Paragraph 3(b)(ii).

# 7. IMPLEMENTATION OF SAFETY MANAGEMENT SYSTEM (SMS)

(a) AMO responsibilities

The AMO will establish procedures that are in alignment with ICAO SMS guidance materials. CAAS supports this initiative and encourages its widespread application.

#### 8. CONTRACTING AND SUBCONTRACTING

- (a) AMO responsibilities
  - (i) The AMO may contract maintenance to other organisations within the UK that are working under the AMO's UKCAA Part 145 MOE and their CAAS Supplement, or other organisations outside the UK that are approved by the CAAS or otherwise acceptable to CAAS under the terms of an existing TA-M or a bilateral maintenance agreement.
  - (ii) The AMO may subcontract maintenance to an unapproved organisation working under its quality system and the required certificate of release to service is issued by the approved AMO.

#### 9. MAINTENANCE RELEASE

The Authorities understand that:

- (a) The AMO will ensure that certifying staff understand their responsibilities in accordance with the UKCAA Part 145, this TA-M, and the CAAS Supplement; and
- (b) any certificate of release to service for maintenance completed on a Singapore civil aeronautical product will include the UKCAA Part 145 AMO's approval number.

# 10. AMENDMENT PROCESS OF THE SUPPLEMENT

The Authorities understand that:

# (a) AMO actions

(i) The AMO must notify the UKCAA of any proposal to carry out the changes listed in SAR-145.85, at least 3 weeks before such changes take place, with an amended CAAS Supplement to the UKCAA.

# (b) The UKCAA actions

- (i) The UKCAA will review and approve the UKCAA Part 145 MOE, which includes the CAAS Supplement, for compliance in accordance with this TA-M.
- (ii) The UKCAA will update, as necessary, the list of AMOs that have been approved to participate in the TA-M.

#### APPENDIX 1: CAAS SUPPLEMENT TO THE UKCAA PART 145 MOE

The Authorities understand that the CAAS Supplement, together with the UKCAA Part 145 MOE, forms the basis of approval by the UKCAA for maintenance carried out by a UK-based AMO. The requirements of this TA-M include the items listed below which are to be described in the AMO's CAAS Supplement where not already included in the MOE.

- (a) By requesting to be included in this TA-M, the current Accountable Manager will ensure personnel of the UKCAA Part 145 AMO will comply with the policies and procedures contained therein relating to the maintenance service requirements under this TA-M. A statement signed by the current Accountable Manager will be included in the CAAS Supplement.
- (b) The AMO will confirm that it will provide CAAS authorised officers access to the organisation to perform oversight and surveillance as required.
- (c) The AMO will perform all work in accordance with the procedure described in their UKCAA Part 145 MOE and the CAAS Supplement.
- (d) All work performed will be within the scope of the ratings and limitations of the AMO's UKCAA Part 145 certificate of approval.
- (e) The AMO will establish procedures that are in alignment with ICAO SMS guidance material. CAAS supports this initiative and encourages its widespread application.
- (f) Any major repairs or major modifications carried out will be reported to the CAAS in accordance with SAR-21 Subpart F requirements. The AMO will ensure that major repairs and major modifications, as further elaborated in Appendix 4 of Section B, are incorporated only when the AMO has received the appropriate approvals from CAAS via the customer.

- (g) The AMO may subcontract work to other unapproved organisations provided that such organisations are under the control of the approved AMO, and the AMO certifies the required return to service of the civil aeronautical products.
- (h) The AMO may contract maintenance to other organisations within the UK that hold a UKCAA Part 145 approval and is accepted under this TA-M, or other organisations outside the UK that are approved by the CAAS or otherwise acceptable to the CAAS.

The AMOs can refer to the URL below for the list of the CAAS bilateral arrangements with foreign CAAs:

https://www.caas.gov.sg/who-we-are/areas-of-responsibility/upholding-a-safe-aviation-environment/surveillance-enforcement

- (i) The AMO will obtain a detailed and clear work order or contract from the customer which will specify the inspections, repairs, modifications, overhauls, Airworthiness Directives (AD) and parts replacement to be carried out.
  - The customer remains responsible for specifying any AD compliance required during maintenance through the work order.
- (j) 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.
- (k) All maintenance performed will within the AMO's facilities, or the facilities of the AMO's contracted or subcontracted organisation approved under the AMO's UKCAA Part 145 MOE; and the final certification of the civil aeronautical product, i.e. ARC issuance, is done by the AMO in UK.

(I) The AMO will report to CAAS, in accordance with SAR-145.60, any reportable service difficulty related to a civil aeronautical product that is 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 aircraft, occupants or anyone else.

Form CAAS(AW)152 may be used for this purpose. The form is available at the following URL:

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

(m) Installation of new and used components.

The AMO should refer to Appendix 2 of Section B for acceptable Authorised Release Certificates (ARC) for new components and Appendix 3 of Section B for acceptable ARCs for used components.

# **APPENDIX 2: ACCEPTANCE OF NEW COMPONENTS**

The AMO will describe the procedures for ensuring that only new aircraft parts that have at least one of the following ARCs can be fitted onto a Singapore civil aeronautical product:

- (a) Form CAAS(AW)95;
- (b) Form CAAS(AW)96 in the case of re-issued parts;
- (c) EASA Form 1;
- (d) FAA Form 8130-3;
- (e) JAA Form 1 issued prior to 28 November 2003 by a production organisation approved by a JAA Full Member State;
- (f) JAA Form 1 issued prior to 28 November 2005 by a production organisation approved by a competent authority in accordance with its national regulation;
- (g) CAA Form 1 issued by a production organisation approved by the UKCAA in the United Kingdom; or
- (h) Form One issued by a production organisation approved by Transport Canada in Canada.

The AMO will require prior approval from CAAS for the acceptance of new parts with release documents other than the above-mentioned.

#### **APPENDIX 3: ACCEPTANCE OF USED COMPONENTS**

The AMO will describe the procedures for ensuring that only maintained aircraft parts that have at least one of the following ARCs can be fitted onto a Singapore civil aeronautical product:

- (a) For used (maintained) parts and components, excluding engines, engine modules and auxiliary power units:
  - (i) Form CAAS(AW)95;
  - (ii) Transport Canada Form One issued by an organisation accepted by the Authority under the Technical Arrangement on Aviation Maintenance between TCCA and the CAAS;
  - (iii) FAA Form 8130-3 issued by a FAR-145 repair station located in the United States:
  - (iv) EASA Form 1 issued by an EASA Part 145 approved maintenance organisation located in an EASA Member State<sup>1</sup>;
  - (v) EASA Form 1 issued before 1 January 2021 by an EASA Part 145 approved maintenance organisation located in the United Kingdom;
  - (vi) JAA Form One issued before 1 June 2009 by a JAR-145 approved maintenance organisation located in a JAA Full Member State;

<sup>&</sup>lt;sup>1</sup> EASA Member States are Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and The Netherlands.

- (vii) HK CAD Form One issued by an organisation accepted by the Authority under the Technical Arrangement on Aviation Maintenance between the CAAS and HK CAD:
- (viii) CASA Form 1 issued before 1 July 2014 by a CASR Part 145 approved maintenance organisation located in Australia, or issued an organisation accepted by the Authority under the Technical Arrangement on Aviation Maintenance between the CAAS and CASA;
- (ix) JCAB Form-18 issued by an organisation accepted by the Authority under the Technical Arrangement on Aviation Maintenance between the CAAS and the JCAB; or
- (x) CAA Form 1 issued by an UKCAA Part 145 approved maintenance organisation located in United Kingdom.
- (b) For used (maintained) engines, engine modules, auxiliary power units and propellers:
  - (i) Form CAAS(AW)95;
  - (ii) Transport Canada Form One issued by an organisation accepted by the Authority under the Technical Arrangement on Aviation Maintenance between TCCA and the CAAS;
  - (iii) HK CAD Form One issued by an organisation accepted by the Authority under the Technical Arrangement on Aviation Maintenance between the CAAS and HK CAD;

- (iv) CASA Form 1 issued by an organisation accepted by the Authority under the Technical Arrangement on Aviation Maintenance between the CAAS and CASA;
- (v) JCAB Form-18 issued by an organisation accepted by the Authority under the Technical Arrangement on Aviation Maintenance between the CAAS and the JCAB; or
- (vi) CAA Form 1 issued by an organisation accepted by the Authority under the Technical Arrangement on Aviation Maintenance between the CAAS and the UKCAA.

#### **APPENDIX 4: REPAIR DATA**

The SAR-21 Subpart F provides the requirements for obtaining CAAS' approval for the use of data for repairs. Subpart F states that CAAS' approval for the use of data for repairs is not required if the data are acceptable under SAR Part-21.117.

(a) Acceptability of data under a CAAS mutual recognition agreement or arrangement

Under SAR Part-21.117, a person may use data, in support of a repair on a product or article, regardless of major or minor classification, if such data meets one of the following criteria below:

- (i) Approved by the FAA under the scope of an agreement between CAAS and the FAA;
- (ii) Approved by the EASA under the scope of an arrangement between the CAAS and the EASA:
- (iii) Issued by a holder of a FAA type certificate and CAAS letter of type acceptance; or
- (iv) Approved by a holder of an EASA type certificate and CAAS letter of type acceptance.
- (b) Acceptable data for major and minor repairs

The following constitute acceptable repair data under SAR-21.117:

(i) Data for a repair issued by:

- A holder of a FAA Type Certificate (TC) who is also holding a CAAS letter of type acceptance (i.e. Boeing or Pratt & Whitney);
- (2) A holder of a FAA Supplemental Type Certificate (STC) that is validated by CAAS;
- (3) A holder of a FAA Technical Standard Order (TSO) Authorisation that is validated by CAAS;
- (4) A holder of a FAA Organisation Designation Authorisation (ODA); and
- (5) A FAA Designated Engineering Representative (DER).

For all major repairs, the FAA approved design data must be supported with applicable FAA approval forms such as the FAA 8110-3, 8100-9, or Form 337 (block 3).

- (ii) Data for a repair approved by:
  - (1) EASA, where EASA is the Competent Authority representing the State of Design of the product (i.e. EASA approval on repairs for Airbus aircraft or Rolls-Royce engines);
  - (2) A holder of an EASA type certificate for a product, where such type certificate was accepted by CAAS under a letter of type acceptance (i.e. data for repair issued by Airbus for a repair on an Airbus aircraft; or data for a repair issued by Rolls-Royce for a Rolls-Royce engine, etc); or
  - (3) A holder of an EASA Supplemental Type Certificate, and that STC is validated by CAAS.

- (iii) Data for a minor repair that is:
  - (1) approved by the original equipment manufacturer (OEM) holding a design organisation approval issued by EASA for repair on an article that was included as part of the EASA type certification, and that such type certificate was accepted by CAAS under a letter of type acceptance; or
  - (2) issued by the OEM holding a design approval issued by the FAA for a repair on an article that was included as part of the FAA type certification, and that such type certificate was accepted by CAAS under a letter of type acceptance.
- (iv) For the use of data not fulfilling the criteria of SAR-21.117, CAAS approval is required under SAR-21 Subpart C or Subpart F.

# (c) Approval Requirement for Major and Minor Repair

Unless the data is acceptable under SAR-21.117, the data must be approved as follows:

- (i) major repair to a product or article is to be approved under Subpart F of the SAR-21:
- (ii) minor repair to a product or article is to be approved by CAAS, or a holder of a SAR-21 Design Organisation Approval with the appropriate scope of approval.

#### SECTION C: REQUIREMENTS FOR SINGAPORE-BASED AMOS

#### 1. INTRODUCTION

- (a) The Authorities understand that this Section sets out how a Singapore-based AMO will implement this TA-M.
- (b) An AMO that maintains a UK aircraft or an engine to be installed on a UK aircraft, or both, will establish a UKCAA Supplement to show compliance with this Section C.
- (c) Compliance with the UKCAA Supplement together with the SAR-145 MOE forms the basis by which an AMO may exercise the maintenance privileges under this TA-M.
- (d) A 'C' or 'D' rated SAR-145 AMO is not required to establish a UKCAA Supplement and will be accepted by the UKCAA to permit the acceptance of CAAS maintenance certification if such AMO fully complies with the conditions set out in this Section.

#### 2. UKCAA RECOGNITION OF THE APPROVAL OF SINGAPORE-BASED AMOS

The Authorities understand that:

- (a) an AMO intending to perform maintenance on civil aeronautical products under regulatory control of the UKCAA will:
  - (i) send all applications for approval under this TA-M to CAAS; and
  - (ii) ensure that applications for approval are accompanied by a copy of the proposed UKCAA Supplement to their SAR-145 MOE. The

UKCAA Supplement is expected to clearly demonstrate how the AMO will meet any special conditions stated in this TA-M. Appendix 1 of Section C and CAAS Advisory Circular on this TA-M provides guidance on how to compile such a Supplement.

# (b) the AMO:

- (i) will be inspected in accordance with the regulatory oversight and surveillance schedule by the Authorities; and
- (ii) may not be eligible for approval under this TA-M if any outstanding findings or enforcement actions are imposed against the AMO.

## 3. INITIAL APPROVAL PROCESS

# (a) AMO Actions

- (i) To apply for approval under this TA-M:
  - (1) an AMO must have its principal place of business in Singapore and hold a SAR-145 approval;
  - (2) establish a UKCAA Supplement to their SAR-145 MOE in accordance with the Supplement guidance material in Appendix 1 of Section C of this TA-M and the CAAS Advisory Circular on this TA-M; and
  - (3) submit a request in a form and manner prescribed by CAAS and include a draft UKCAA Supplement at least 90 days prior to the expected approval date.

(ii) The applicant does not need to send the above documents to UKCAA.

## (b) CAAS actions

- (i) Upon the receipt of a request to approve a UKCAA Supplement in accordance with this TA-M, CAAS will:
  - (1) ensure that the applicant has access to the latest revision of this TA-M;
  - (2) review the application for completeness and legibility;
  - (3) review the UKCAA Supplement and the AMO for compliance in accordance with this TA-M; and
  - (4) where the UKCAA Supplement and AMO are found satisfactory, issue a letter to the AMO attesting that the CAAS Supplement is approved.
- (ii) The AMO's scope of ratings and limitations under the TA-M will not exceed that which is specified in the AMO's CAAS SAR-145 approval certificate and scope of approval.
- (iii) Once approved, the UKCAA Supplement and associated privileges will remain in effect until surrendered, suspended or cancelled by CAAS.
- (iv) The CAAS will update the list of AMOs that have been approved to participate in the TA-M.

### 4. CONTINUATION PROCESS

(a) AMO responsibilities

The Authorities understand that for the AMO to retain the privileges granted under the TA-M the AMO will:

- (i) continue to remain in compliance with its CAAS SAR-145 MOE and UKCAA Supplement, and perform all maintenance in accordance with the procedure described in their Supplement; and
- (ii) allow authorised officers from the Authorities unimpeded access to all facilities for oversight and surveillance purposes.

## 5. PERFORMANCE OF MAINTENANCE UNDER THIS TA-M

The Authorities understand that:

- (a) an AMO with a UKCAA Supplement approved in accordance with this TA-M may certify maintenance performed on civil aeronautical products under the regulatory control of the UKCAA. The maintenance performed will be within the AMO's scope of ratings and limitations approval issued by CAAS; and
- (b) the certification of maintenance on civil aeronautical products pursuant to this TA-M will be accepted if:
  - (i) an AMO is recognised by the UKCAA based on the inspection and evaluation requirements of CAAS;

- (ii) the certification of maintenance performed on civil aeronautical products will be carried out in accordance with the requirements of UKCAA Part 145 and SAR-145;
- (iii) all maintenance on UK civil aeronautical products are performed within the AMO's facilities, or within the facilities of the AMO's contracted and subcontracted organisations approved under the AMO's SAR-145 MOE; and the final certification of the civil aeronautical product, i.e. ARC issuance, is done by AMOs located in Singapore;
- (iv) the AMO uses aircraft components, parts and materials that are acceptable to UKCAA, as described under Appendix 2 of Section C of this TA-M; and
- (v) the AMO ensures that repairs performed on UK civil aeronautical products are acceptable to UKCAA, in accordance with Appendix 3 of this Section C of this TA-M.

### 6. REPORTING OF UNAIRWORTHY CONDITIONS

## (a) AMO responsibilities

The AMO will report to UKCAA, in accordance with UKCAA Part 145.A.60, 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 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/

## 7. IMPLEMENTATION OF SMS

(a) AMO responsibilities

The UKCAA recognises that AMOs approved in accordance with SAR-145 are required to implement SMS. The UKCAA supports this initiative and encourages its widespread application.

### 8. CONTRACTING AND SUBCONTRACTING

- (a) AMO responsibilities
  - (i) The AMO may contract maintenance to other organisations within Singapore that are working under their AMO's SAR-145 MOE and UKCAA Supplement, or other organisations outside Singapore, that are approved by the UKCAA or otherwise acceptable to the UKCAA under the terms of an existing TA-M or a bilateral maintenance agreement.
  - (ii) The AMO may subcontract maintenance to an unapproved organisation working under its quality system and the required certificate of release to service is issued by the approved AMO.

### 9. MAINTENANCE RELEASE

The Authorities understand that:

- (a) The AMO will ensure that certifying staff understand their responsibilities in accordance with SAR-145, this TA-M, and the UKCAA Supplement; and
- (b) any certificate of release to service for maintenance completed on a UK civil aeronautical product will include the SAR-145 AMO's approval number.

# 10. AMENDMENT PROCESS OF THE SUPPLEMENT

The Authorities understand that:

(a) AMO actions

The AMO must notify CAAS of any proposal to carry out the changes listed in UKCAA Part 145.A.85, at least 3 weeks before such changes take place, with an amended UKCAA Supplement to CAAS.

## (b) CAAS Actions

- CAAS will review and approve the SAR-145 MOE, which includes the UKCAA Supplement, for compliance in accordance with this TA-M.
- (ii) CAAS will update, as necessary, the list of AMOs that have been approved to participate in the TA-M.

### **APPENDIX 1: UKCAA SUPPLEMENT TO THE SAR-145 MOE**

The Authorities understand that the UKCAA Supplement, together with the SAR-145 MOE, forms the basis of approval by CAAS for maintenance carried out by a Singapore-based AMO. The requirements of this TA-M include the items listed below which are to be described in the AMO's UKCAA Supplement where not already included in the MOE.

- (a) By requesting to be included in this TA-M, the current Accountable Manager will ensure personnel of the SAR-145 AMO will comply with the policies and procedures contained therein relating to the maintenance services requirements under this TA-M. A statement signed by the current Accountable Manager will be included in the UKCAA Supplement.
- (b) The AMO will confirm that it will provide UKCAA authorised officers access to the organisation to perform oversight and surveillance as requested.
- (c) The AMO will perform all work in accordance with the procedure described in their SAR-145 MOE and UKCAA Supplement.
- (d) All work performed will be within the scope of the ratings and limitations of the AMO's SAR-145 certificate of approval.
- (e) The UKCAA recognises that AMOs approved in accordance with SAR-145 are required to implement a SMS. The UKCAA supports this initiative and encourages its widespread application.
- (f) The AMO will ensure that repairs and modifications, are performed in accordance with UKCAA Part 21 or in accordance with Appendix 3.

- (g) The AMO may subcontract work to other unapproved organisations provided that such organisations are under the control of the approved AMO, and the AMO certifies the required return to service of the civil aeronautical products.
- (h) 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 Singapore that are approved by the UKCAA or otherwise acceptable to the UKCAA.

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/modifications/bilateral-agreements/

(i) The AMO will obtain a detailed and clear work order or contract from the customer which will specify the inspections, repairs, modifications, overhauls, ADs and parts replacement to be carried out.

The customer remains responsible for specifying any AD compliance required during maintenance through the work order.

- (j) 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.
- (k) All work performed will be within the AMO's facilities, or within the facilities of the AMO's and contracted or subcontracted organisation approved under the AMO's SAR-145 MOE; and the final certification of the civil aeronautical product i.e. ARC issuance, is done by the AMO located in Singapore.

(I) The AMO will report to the UKCAA any reportable service difficulty (AMC 20-8 ED Decision 2003/12/RM) 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 aircraft, occupants or anyone else.

The 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/

(m) Installation of new and used components.

The AMO should refer to Appendix 2 of Section C of this TA-M for acceptable ARCs for new / used components.

## **APPENDIX 2: ACCEPTANCE OF NEW / USED COMPONENTS**

The AMO will describe the procedures for ensuring that new and used aircraft parts that have at least one of the following ARCs can be fitted onto a UK civil aeronautical product:

## **NEW AIRCRAFT PARTS**

- (a) CAA Form 1;
- (b) FAA Form 8130-3 with status "new or rebuilt for engines";
- (c) Transport Canada Form One;
- (d) ANAC Form F-100-01 (former Form SEGVOO 003);
- (e) JAA Form 1 issued prior to 28 November 2003 by a production organisation approved by a JAA Full Member State; or
- (f) JAA Form 1 issued prior to 28 November 2005 by a production organisation approved by a competent authority in accordance with its national regulations

### **USED AIRCRAFT PARTS**

- (a) CAA Form 1;
- (b) FAA Form 8130-3 for a used part (e.g. overhauled) issued by an EASA approved organisation located in the USA with "dual release". Both boxes in block 14a are to be ticked and the EASA release statement together with the EASA approval number are detailed in the remarks block;

- (c) Transport Canada Form One for a used part (e.g. overhauled) issued by an EASA approved organisation located in Canada with "dual release". Both boxes in block 14a are to be ticked and EASA approval number detailed in the remarks block;
- (d) ANAC Form F-100-01 (former Form SEGVOO 003) for a used part (e.g. overhauled) issued by an EASA approved organisation located in Brazil with "dual release". Both boxes in block 18 are to be ticked and the EASA release statement together with the EASA approval number are detailed in the remarks block;
- (e) Form CAAS(AW)95; or
- (f) EASA Form 1 for a used part (e.g. overhauled) issued by an EASA approved organisation located in an EASA participant state.

#### **APPENDIX 3: MODIFICATION AND REPAIR DATA**

The following modification and repair data are acceptable to UKCAA

(a) Approved or accepted by the CAA 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.

https://www.caa.co.uk/Commercial-industry/Aircraft/Airworthiness/Organisationand-maintenance-programme-approvals/Bilateral-agreements/What-is-abilateral-agreement/

(b) Approved or accepted by the CAA 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.

https://www.caa.co.uk/Commercial-industry/Aircraft/Airworthiness/Organisationand-maintenance-programme-approvals/Bilateral-agreements/What-is-abilateral-agreement/

(c) Approved or accepted by the CAA 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.

https://www.caa.co.uk/Commercial-industry/Aircraft/Airworthiness/Organisationand-maintenance-programme-approvals/Bilateral-agreements/What-is-abilateral-agreement/

(d) Approved or accepted by the CAA under the scope of the Working Arrangement between The Civil Aviation Bureau, Ministry of Land, Infrastructure, Transport and Tourism Japan (JCAB) and the Civil Aviation Authority of the United Kingdom of Great Britain and Northern Ireland (CAA).

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

- (e) Data approved by EASA where the Agency is responsible as the State of Design on behalf of the EU Member State.
  - (i) Modification and repair data approved by EASA is acceptable to the CAA if it was approved before 31 December 2020.