

**TECHNICAL IMPLEMENTATION PROCEDURES FOR AIRWORTHINESS
AND ENVIRONMENTAL CERTIFICATION UNDER THE WORKING ARRANGEMENT
BETWEEN
TRANSPORT CANADA CIVIL AVIATION
AND
THE CIVIL AVIATION AUTHORITY
OF THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND
FOR THE PROMOTION OF AVIATION SAFETY**

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1.0 SECTION I — GENERAL

1.1 PURPOSE

The purpose of these Technical Implementation Procedures is to define the interface requirements and activities between Transport Canada Civil Aviation (TCCA) and the Civil Aviation Authority (CAA) of the United Kingdom of Great Britain and Northern Ireland (United Kingdom), herein after referred to as the “Participants”, for the import, export, and continued support of civil aeronautical products. TCCA and the CAA will conduct their certification and validation activities consistent with the *Working Arrangement between Transport Canada Civil Aviation and The Civil Aviation Authority of the United Kingdom of Great Britain and Northern Ireland for the Promotion of Aviation Safety* (WA), signed at Ottawa, ON and London, England, on 5 November 2020 and these Technical Implementation Procedures.

Note: Appendix D lists all acronyms used in this document.

1.2 ROLES

1.2.1 BASIS OF AUTHORITY FOR TECHNICAL IMPLEMENTATION PROCEDURES

These Technical Implementation Procedures are established in accordance with the WA. The WA recognizes the Participants, as the Participants for Canada and the United Kingdom, respectively, and that they are authorized to perform the functions of either the Importing Participant or Exporting Participant, as applicable, for purposes of these Technical Implementation Procedures.

1.2.2 GOVERNANCE

- (1) The governance of these Technical Implementation Procedures will be carried out jointly by the following designated officers:
 - (a) For TCCA: Director of Standards (AART), and
 - (b) For CAA: Group Director Safety and Airspace Regulation Group
- (2) The designated officers will be in charge of the effective functioning, implementation, and continued validity of these Technical Implementation Procedures, including revisions and amendments thereto. The designated officers may accept to accomplish this through formation of a governance group and establish its rules of procedures, membership, and meeting schedules.

1.2.3 MAINTENANCE OF CONFIDENCE

The Participants understand that:

- (a) they need to remain capable of carrying out their roles under these Technical Implementation Procedures;
- (b) The designated officers will define and accept the activities required to promote continued understanding and compatibility of each Participant’s systems and to ensure the maintenance of confidence between the Participant’s technical competence and ability to perform regulatory functions within the scope of these Technical Implementation Procedures.

1.3 COMMUNICATIONS

1.3.1 CHANGES IN CERTIFICATION OR APPROVAL SYSTEMS

- (1) These Technical Implementation Procedures are based upon similar certification and approval systems for civil aeronautical products being in place at the time of signing. The Participants will keep each other informed of significant changes within those systems, such as changes in:
 - (a) statutory roles;
 - (b) organizational structure (e.g., key personnel, management structure, office location);
 - (c) airworthiness and environmental requirements, procedures and technical training;
 - (d) production quality system oversight, including system oversight outside their territory; and
 - (e) delegated or contracted functions, or the kinds of organizations to which functions have been granted, delegated or contracted.
- (2) Revision by either Participant of its certification or approval system may affect the basis and the scope of these Technical Implementation Procedures. Accordingly, upon notice of such changes, the other Participant may request a meeting to review the need to amend these Technical Implementation Procedures.

1.3.2 LANGUAGE OF COMMUNICATIONS

The Participants will ensure that the data and documents exchanged under these Technical Implementation Procedures are in the English language.

1.3.3 TECHNICAL CONSULTATIONS

- (1) The Participants are expected, within the framework of their regular meetings, to discuss draft advisory and guidance materials and consult on new or proposed changes to the certification standards or specifications for civil aeronautical products.
- (2) The Participants will consult as necessary to provide input when requested on technical issues and to resolve technical differences. The frequency of these exchanges will depend on the number and significance of the issues to be discussed.

1.3.4 COMMUNICATIONS REGARDING DELEGATES AND APPROVED ORGANIZATIONS

The Participants understand that there may be occasional situations where either may interact directly with a delegate or an approved organization of the other. In such cases, the Participant initiating the contact will notify the other as soon as possible. Any such direct communication will be limited to information exchange. The Participants are expected to always consult one another on significant validation program decisions.

1.4 INTERPRETATIONS AND DIFFERENCES IN INTERPRETATION AND IMPLEMENTATION

- (1) In the case of conflicting interpretations by the Participants of the national laws, airworthiness or environmental regulations, standards, specifications, requirements, or acceptable means of compliance pertaining to certifications, approvals, or acceptance under these Technical Implementation Procedures, the interpretation of the Importing Participant whose national laws, airworthiness or environmental regulations, standards, specifications, requirements, or acceptable means of compliance are being interpreted will prevail.
- (2) The Participants will:
 - (a) resolve differences in the interpretation and implementation of these Technical Implementation Procedures through consultation or any other jointly accepted means. The Participants are expected to make every effort to resolve differences at the lowest possible level;
 - (b) expeditiously raise differences that cannot be satisfactorily resolved at the working level to their respective managements, on a progressive level, until resolution is reached; and
 - (c) raise differences that cannot be satisfactorily resolved between them to the designated officers identified in section 1.2.2.

1.5 APPLICABLE REQUIREMENTS, PROCEDURES, AND GUIDANCE MATERIAL

The Participants understand that their respective national regulations, certification standards or specifications, policies, procedures, and guidance materials for airworthiness and environmental certification will guide these Technical Implementation Procedures.

1.6 DEFINITIONS

For the purpose of these Technical Implementation Procedures:

- (a) “Acoustical Change” means a change in the type design of an aircraft or aircraft engine that results in an increase in the noise emission levels of that aircraft.
- (b) “Airworthiness Requirements” mean regulations, airworthiness standards or other certification specifications governing the design and performance of civil aeronautical products.
- (c) “Appliance” means any instrument, equipment, mechanism, article, part, apparatus, appurtenance or accessory, including communications equipment that is used, or intended to be used, in operating or controlling an aircraft in flight and is installed in or attached to the aircraft.
- (d) “Approved Manuals” mean manuals, or sections of manuals, requiring approval by TCCA or CAA. These include the approved sections of the Flight Manual, the airworthiness limitation section of the Instructions for Continued Airworthiness (ICA), the structural repair manual, the engine and propeller installation and operating manuals, and the certification maintenance requirements, where applicable.

- (e) “Certificating Authority (CA)” means TCCA when fulfilling the ICAO responsibilities of a State of Design to regulate the design, production, and airworthiness approval and environmental certification of civil aeronautical products and articles that originated in Canada, and the CAA when fulfilling the ICAO responsibilities of a State of Design to regulate the design, production, and airworthiness approval and environmental certification of civil aeronautical products and articles that originated in the United Kingdom.
- (f) “Certification Basis” consists of the applicable airworthiness and environmental requirements established by a Participant as the basis by which the type design of a civil aeronautical product, or a change to that type design was approved or accepted. The certification basis may also include Special Conditions, Findings of Equivalent Level of Safety, and Exemptions or Deviations when determined by a Participant to apply to the type design approval. For the CAA, the certification basis may also include Operational Suitability Data (OSD) requirements.
- (g) “Participant” means either Transport Canada Civil Aviation for Canada, or the Civil Aviation Authority for the United Kingdom, depending on context.
- (h) “Compliance Determination” means the determination, by either TCCA’s system or CAA’s system, that the applicant has demonstrated compliance with identified requirements.
- (i) “Critical Part” means a part identified as critical by the design approval holder or the Exporting Participant during the type validation process for the civil aeronautical product. Typically, such components include parts for which a replacement time, inspection interval, or related procedure is specified in the airworthiness limitations section or certification maintenance requirements of the Instructions for Continued Airworthiness. Specific definitions for critical parts are found within the applicable airworthiness requirements.
- (j) “Deviation” is a grant of relief from the requirements of a certification specification when processed through the appropriate regulatory procedure by the CAA.
- (k) “Emissions Change” in respect of an aircraft means a change in the type design of an aircraft or aircraft engine that results in an increase in fuel venting or exhaust emissions of a turbine engine.
- (l) “Environmental Requirements” mean regulations, environmental standards, or certification specifications governing the certification of designs with regard to noise characteristics, exhaust emissions, and fuel venting of civil aeronautical products.
- (m) “Exemption” means a grant of relief from requirements of a regulation (and for TCCA, an airworthiness requirement) when processed through the appropriate regulatory procedure by TCCA or the CAA.
- (n) “Export” means the process by which a civil aeronautical product is released from one regulatory system for subsequent use in another regulatory system.
- (o) “Exporting Participant” means TCCA or the CAA as charged by the laws of the exporting State, to regulate the airworthiness and environmental certification, approval, or acceptance of civil aeronautical products, parts, and appliances.

- (p) “Finding of Equivalent Level of Safety” means a finding by a Participant that alternative action taken provides a level of safety equal to that provided by the airworthiness requirements for which equivalency is being sought.
- (q) “Import” means the process by which an exported civil aeronautical product is accepted by TCCA or the CAA for use and is subsequently placed under that authority’s regulatory system.
- (r) “Importing Participant” means TCCA or the CAA as charged by the laws of the importing State with regulating the airworthiness and environmental certification, approval, or acceptance of civil aeronautical products.
- (s) “Licensing Agreement” means a commercial contract between a Type Certificate (TC) or Supplemental Type Certificate (STC) holder and a production organization approval holder (or applicant) formalizing the rights and duties of both contractual parties to use the design data for the purpose of manufacturing the civil aeronautical product.
- (t) “Life-limited Part” means a part that, as a condition of the type certificate, may not exceed a specified time, or number of operating cycles, in service.
- (u) “Manufacturer” means a person who, under Canadian or United Kingdom regulations, is responsible for determining that all products, parts, or appliances produced within its production quality system conform to a TCCA or CAA approved design or established government or industry standard and are in a condition for safe operation. For the United Kingdom this includes a production organisation.
- (v) "Operational Suitability Data (OSD)" means the suite of data required to be established by aircraft manufacturers under (UK) Part 21 that is considered important for the safe operation of the aircraft type; OSD is approved by the CAA under the type certificate to be used by operators and training organizations. The data consists of 5 elements:
 - (i) Minimum Syllabus of pilot type rating training;
 - (ii) Aircraft Reference data to support the qualification of simulators;
 - (iii) Minimum Syllabus of maintenance certifying staff type rating training;
 - (iv) Type-Specific data for cabin crew training; and
 - (v) Master Minimum Equipment List (MMEL).
- (w) “Part Design Approval” for TCCA means a document issued by the Minister to record the approval of the design of a replacement part, identified by a part number or by some other means of identification unique to the part, for use on an aeronautical product that is identified by type or model.
- (x) “Production Quality System” means a systematic process, which meets the requirements of the Exporting Participant and ensures that products, parts, and appliances will conform to the approved design and will be in a condition for safe operation. For TCCA this is known as a Production Control System.
- (y) “Restricted Type Certificate” means a type certificate in the restricted category.

- (z) “Special Condition” means:
 - (i) For TCCA: an additional airworthiness requirement prescribed by TCCA when the airworthiness standard for the category of civil aeronautical product does not contain adequate or appropriate safety standards due to novel or unusual design features of the product design. Special Conditions contain such safety requirements as TCCA finds necessary to establish a level of safety equivalent to that intended by the applicable airworthiness standards.
 - (ii) For the CAA: an additional detailed technical specification prescribed by the CAA when the airworthiness code for the category of civil aeronautical product does not contain adequate or appropriate safety standards due to novel or unusual design features, unconventional use of the product, or experience in service with similar products showing that unsafe conditions may develop. Special Conditions contain such safety standards as the CAA finds necessary to establish a level of safety equivalent to that intended in the applicable airworthiness code.
- (aa) “Standard Part” means a part that is manufactured in accordance with an established government or industry-accepted specification, which includes design, manufacturing, and uniform identification requirements. The specification must include all information necessary to produce and conform the part, and must be published so that any person or organization may manufacture it.
- (bb) “Validating Authority (VA)” means either TCCA or the CAA as charged by the laws of the importing State, with regulating the design, production, and airworthiness approval and environmental certification of civil aeronautical products and articles.
- (cc) “Validation” means the VA’s own process for compliance determination of a design, or a design change, as approved or certified by Exporting Participant.

SECTION II — DESIGN APPROVAL

2.1 PROCEDURES

- (1) The Participants understand that the procedures in this Section will apply to the initial design approval of each other’s civil aeronautical products, the approval of subsequent design changes, and approval of design data used in support of repairs.
- (2) The Participants understand that:
 - (a) Design approvals and data already certified or validated by TCCA and the European Union Aviation Safety Agency (EASA) under the Bilateral Aviation safety agreement between Canada and the European Union (EU) before the date of the UK’s exit from the EU will continue to remain valid for TCCA and the CAA under these Technical Implementation Procedures. For the EU these design approvals include those that were deemed valid by EASA under Regulation (EU) No. 748/ 2012 (as originally enacted) and for TCCA, those issued by TCCA before the introduction of the CARs in 1996.
 - (b) When validating each other’s products, they will follow the validation process described in Appendix C.
 - (c) These procedures are based on the high degree of mutual confidence and trust between them on their technical competence, regulatory capabilities and similarities of each other’s certification and approval systems. These procedures

establish the process for implementing the reciprocal acceptance of each other's compliance determinations and approvals on civil aeronautical products.

(d) Canada and the United Kingdom recognize that they have sovereign authority over the certification and approval processes and compliance determinations within their respective jurisdictions.

(e) The procedures in this Section are not intended to diminish their roles or their authority to type design information. Rather, each of them has determined that its national requirements, standards, practices, procedures, and systems for the certification, approval and production of civil aeronautical products are sufficiently similar to enable the Importing Participant to rely on and accept, to the maximum extent practicable, the compliance determination by the Exporting Participant with the Importing Participant's requirements. They understand that if there are overwhelming reasons to go outside this defined principle, such reasons will be discussed between them.

(f) The Participants recognize each other's systems of individual and organizational delegation and authorization as part of their overall certification and approval systems. Compliance determinations and approvals made pursuant to these Technical Implementation Procedures through these systems are given the same validity as those made directly by them.

2.2 LIMITATIONS OF DESIGN OR DESIGN CHANGE APPROVALS

(1) The Participants understand that:

(a) A certificate or an approval issued by either Participant is intended for civil aeronautical products, which have a civilian application. Civil aeronautical products that are engaged strictly in military, customs, police, search and rescue, coastguard or similar activities or services will not be eligible for certification or approval under these Technical Implementation Procedures. A Participant may accept an application for these products under these Technical Implementation Procedures where they perform a dual role and the product has a civil certification basis.

(b) An applicant under the jurisdiction of a Participant who submits an application directly to the other Participant will not be eligible for certification, approval or validation under these Technical Implementation Procedures. An applicant will submit an application through its Participant to the other Participant.

2.3 GENERAL PROCEDURES FOR VALIDATION OF A DESIGN OR A DESIGN CHANGE

2.3.1 SUBMISSION OF AN APPLICATION

The Participants understand that when specified by these Technical Implementation Procedures, an application for approval of a design or a design change will:

- (a) be made using the forms required by the VA, duly completed by the applicant. The forms are available from the following websites:

For the CAA: <https://www.caa.co.uk/Commercial-Industry/Aircraft/Airworthiness/>

For TCCA: <http://wwwapps.tc.gc.ca/Corp-Serv-Gen/5/Forms-Formulaire/English.aspx>

Note: It may be necessary for the applicant to complete a declaration or acknowledge its commitment to the appropriate financial requirements before the application can be processed.

- (b) be accompanied by the applicable technical data package necessary for the VA to conduct preliminary administrative and technical assessments of the application;
- (c) be forwarded by the CA to the VA along with a cover letter stating that the application is within the scope of these Technical Implementation Procedures; and
- (d) be acknowledged formally by the VA and give notice to the CA of the contact points for purpose of further communication on the application.

2.3.2 JOINT OR CONCURRENT CERTIFICATION

- (1) The Participants understand that when they, and the applicant seeking approval, accept a joint or concurrent certification/validation process, the VA will conduct its activities using the validation procedures contained in Appendix C.
- (2) The Participants will document their joint decision under Section VII of these Technical Implementation Procedures. This documentation will include the details of their work-sharing program necessary to cover both type certification and post-type certification activities and will include those elements that would be documented as part of the Validation Plan of Appendix C.

2.3.3 PROJECTS INVOLVING A SEPARATE STATE OF DESIGN AND STATE OF MANUFACTURE

The Participants understand that some of their aviation industries projects may involve products designed under one Participant's jurisdiction and manufactured under the other Authority's jurisdiction. In such cases, the Participants will work together to develop and document a working arrangement in accordance with Section VII of these Technical Implementation Procedures. The working arrangement will define their respective roles to ensure that the relevant functions assigned to the State of Design and the State of Manufacture under Annex 8 to the Convention on International Civil Aviation ("Chicago Convention") are carried out. Such a working arrangement will address the continued airworthiness roles assigned to the State of Design and the State of Manufacture.

2.3.4 COMMUNICATIONS DURING A CERTIFICATION, APPROVAL OR VALIDATION PROJECT

The Participants will establish a communications protocol at a level considered appropriate for the scope of the certification, approval or validation activity under this Section. The communications protocol will, as a minimum, identify primary contact offices or persons, accommodate for an early exchange of information and discussion between the Participants, and promote continued communications throughout the certification, approval or validation project. The contact points for the Participants for the purpose of this Technical Implementation Procedures are provided in Appendix A.

2.3.5 THE PARTICIPANTS VALIDATION PROCESS

- (1) The Participants understand that their acceptance of compliance determinations and/or approvals on products under the WA will be respected on their validation projects.
- (2) The Participants will conduct validation activities using the validation procedures contained in Appendix C. The expectation is that the CA's certification activities will allow the VA to make a compliance determination that the type design of a civil aeronautical product complies with its requirements.
- (3) The Participants understand that this Section is intended to reduce the number of compliance determinations retained by the VA as much as practicable while respecting regulatory requirements. The validation process is intended to allow:
 - (a) the VA to issue its design approval based on the CA's design approval and declaration that the type design has been examined and found to comply with the VA's certification basis; and
 - (b) the VA to review selected aspects of a type design presented for design approval, due to the origin and nature of the civil aeronautical product and the validation criteria defined in Appendix C.

2.3.6 COMPLETION OF VALIDATION

The Participants understand that:

- (a) except when these Technical Implementation Procedures provide for the automatic acceptance of an approval issued by the CA, the completion of the validation process by the VA, which includes the resolution of all issues raised during the validation activity, will result in the issuance of a corresponding approval, or an indication of its acceptance of the CA's approval as equivalent to its own; and
- (b) in the case where the VA issues an approval, the approval will be forwarded directly to the holder, and at the same time, a copy provided to the CA.

2.4 TYPE CERTIFICATE (TC)

The Participants understand that the VA will use the following procedures for its validation and approval of an aircraft, aircraft engine or propeller for which TCCA or CAA is the CA.

Notes:

- (i) *Before the implementation of Subpart 521 of the CARs in December of 2009, TCCA used the type certification system as the means to record the design approval of an appliance. Appliances that were issued an appliance TC have a certification basis consisting of either a FAA Technical Standard Order (TSO) or a Special Condition in the case where no standards existed.*
- (ii) *The appliance TC process is considered equivalent to that of the TSO, however the production approval is granted under Subpart 561 of the CARs. The appliance TC does not confer installation approval. Appliances approved under an appliance TC process is expected to be evaluated using the criteria in respect of the CAN-TSO design approval.*

2.4.1 APPLICATION FOR A TYPE CERTIFICATE

- (1) An application for a TC will be submitted for an aircraft, aircraft engine or propeller that has been issued a TC by, or where an application for certification has been made to, the CA.
- (2) The CA should ensure that the application contains the following information:
 - (a) the data required in accordance with, for TCCA, Division II and XI of Subpart 521 of the Canadian Aviation Regulations (CAR), and for the CAA, Part 21.A.15;
 - (b) a copy of the CA's TC and TC data sheet, if available, that identifies the certification basis upon which the design approval was based. In the absence of a TC data sheet, the CA should submit the document that defines the certification basis;
 - (c) the date of application for a TC to the CA;
 - (d) the applicant's requested date for completion of type certification;
 - (e) the applicant's proposed certification basis, which includes the amendment level of the applicable airworthiness and environmental requirements of the VA; and
 - (f) any other technical data requested by the VA in order to proceed with the application, as described in Appendix C2.1.2.
- (3) If known at the time of application, the application should also contain the following:
 - (a) a description of all novel or unusual design features known to the applicant or the CA, which might necessitate issuance of Special Conditions or may require a review of the acceptable means of compliance;
 - (b) all known or expected exemptions or deviations, or Findings of Equivalent Level of Safety relative to the CA's standards for design approval that

might affect compliance with the VA's airworthiness and environmental standards; and

- (c) available information on Canadian or United Kingdom customers and delivery schedules.
- (4) The VA will acknowledge receipt of the application and notify the CA of the subsequent procedures for the validation and its proposed certification basis.
- (5) The Participants may accept applications for concurrent or joint type certification/validation in accordance with 2.3.2 above.
- (6) The Participants and the applicant may accept that the additional technical data be submitted directly by the applicant to the VA.

2.4.2 ESTABLISHING THE CERTIFICATION BASIS FOR THE TYPE CERTIFICATE

For the purpose of validation by the VA, the certification basis will be developed using:

- (a) the applicable airworthiness requirements of the VA in effect on the date of application for a TC to the CA;
- (b) the applicable environmental requirements of the VA in effect on the date of application for a TC to the CA; and
- (c) for the CAA, the OSD requirements of Part 21 and the related Certification Specifications in effect on the date of application for an aircraft TC to TCCA.

2.4.3 TYPE CERTIFICATE VALIDATION

The VA will conduct its validation of a TC for an aircraft, aircraft engine or propeller in accordance with the applicable procedures of Appendix C.

2.4.4 ISSUANCE OF A TYPE CERTIFICATE

The VA will issue a TC for an aircraft, aircraft engine or propeller when:

- (a) the applicant has demonstrated and declared compliance to the VA's certification basis;
- (b) the CA has issued a statement of compliance to the VA's certification basis;
- (c) the CA has issued its own TC for the aircraft, aircraft engine or propeller; and
- (d) the VA has completed its validation procedures for a TC.

2.5 RESTRICTED TYPE CERTIFICATE (RTC)

For aircraft that have been, or will be, granted a Restricted TC, a Participant may choose to validate such aircraft designs on a case-by-case basis. In such a case, the Participants will follow the procedures outlined in paragraph 2.4 above.

2.6 SUPPLEMENTAL TYPE CERTIFICATE (STC)

The Participants understand that the VA will use the following procedures for its approval of a design change to a civil aeronautical product that is type certified in both Canada and the United Kingdom.

Note: For CAA STCs associated with replacement part designs, the procedures of section 2.9 of this document are expected to be used.

2.6.1 APPLICATION FOR A SUPPLEMENTAL TYPE CERTIFICATE

- (1) An application for an STC will be submitted for a civil aeronautical product:
 - (a) that has been issued a TC by both Participants, regardless of the State of Design of the product;
 - (b) for which one of the Participants is the State of Design for the design change; and
 - (c) for which one of the Participants has approved the design change through the issuance of an STC.

Note: TCCA, the CAA, and the applicant may accept a joint or concurrent certification/validation process as per section 2.3.2.

- (2) The CA is expected to ensure that each application contains the following information
 - (a) the data required and a description of the design change, in accordance with Divisions V and XI of Subpart 521 of the CARs for TCCA, and in accordance with Part 21.A.113(a) for CAA, including the information to fulfill Part 21.113(b) regarding a link to the TC holder or adequacy of the applicant's own resources;
 - (b) a copy of the CA's STC that identifies the certification basis upon which the design approval was based. In the absence of the STC, the CA should submit the document that defines the certification basis;
 - (c) the date of application for an STC to the CA;
 - (d) the applicant's requested date for completion of the STC;
 - (e) the applicant's proposed certification basis, which includes the amendment level of the applicable airworthiness, environmental and where applicable OSD requirements of the VA; and
 - (f) any additional technical data that may be requested by the VA in order to proceed with the application, as described in Appendix C2.1.2.
 - (g) The Participants and the applicant may accept that the additional technical data be submitted directly by the applicant to the VA.
- (3) If known at the time of application, the application is expected to also contain the following:
 - (a) a description of all novel or unusual design features known to the applicant or the CA, which might necessitate issuance of Special Conditions or may require a review of the acceptable means of compliance;
 - (b) all known or expected exemptions or deviations, or equivalent level of safety findings relative to the CA's standards for design approval that

might affect compliance with the applicable VA's airworthiness and environmental standards; and

- (c) available information on Canadian or United Kingdom based customers and delivery schedules.
- (4) In the case of applications from Canada where an STC applicant has not entered into an arrangement with the TC holder as set out in (UK) Part 21.A.113, TCCA will review and confirm the applicant's justification that such an arrangement is not necessary as the information on which the application is based is adequate from the applicant's own resources. The applicant's justification and the TCCA concurrence statement will be provided to CAA.
- (5) The VA will acknowledge receipt of the application and notify the CA of the subsequent procedures for the validation and its proposed certification basis.
- (6) The Participants may accept applications for concurrent or joint supplemental type certification/validation in accordance with 2.3.2 above.

2.6.2 ESTABLISHING THE CERTIFICATION BASIS FOR THE SUPPLEMENTAL TYPE CERTIFICATE

For the purpose of supplemental type certification by the VA, the certification basis will be developed:

- (a) using the VA's procedures and its applicable requirements as determined in a manner that is consistent with the criteria that is used to establish the certification basis for a domestic STC of similar design and service history. These requirements are defined, for TCCA in section 521.157 of the CARs and for the CAA in Part 21.A.101;
- (b) using the date of application to the CA for the STC, as the date that is to be used for the purpose of determining the VA's certification basis;
- (c) using in the case of a design change involving an acoustical or emissions change, the applicable environmental requirements of the VA in effect on the date of application to the CA for the STC; and
- (d) for the CAA, using the OSD requirements of Part 21 and the related Certification Specifications in effect on the date of application for an aircraft STC to TCCA when the application for a change includes changes to the aircraft operational suitability data.

2.6.3 SUPPLEMENTAL TYPE CERTIFICATE VALIDATION

The VA will conduct its validation of an STC for a civil aeronautical product in accordance with the applicable procedures of Appendix C.

2.6.4 ISSUANCE OF THE SUPPLEMENTAL TYPE CERTIFICATE

The VA will issue an STC for a civil aeronautical product when:

- (a) the applicant has demonstrated and declared compliance to the VA's certification basis;
- (b) the CA has issued a statement of compliance to the VA's certification basis;
- (c) the CA has issued its own STC for the product; and
- (d) the VA has completed its validation procedures for an STC.

2.7 SUPPLEMENTAL TYPE CERTIFICATE FOR SPECIAL-PURPOSE OPERATIONS

The Participants understand that when an STC intended for an aircraft to be reconfigured for use in a special-purpose operation, and the proposed configuration is not eligible for a standard Certificate of Airworthiness, the VA may validate such a design change on a case-by-case basis. In such a case, the Participants will follow the procedures outlined in paragraph 2.6 above.

2.8 CANADIAN TECHNICAL STANDARD ORDER (CAN-TSO) DESIGN APPROVAL AND UNITED KINGDOM TECHNICAL STANDARD ORDER AUTHORIZATION (UKTSOA)

Notes:

- (i) *TCCA issues Canadian Technical Standard Order (CAN-TSO) design approvals under Division III of Subpart 521 of the CARs, to record the approval of the design of an appliance. The authority to produce the appliance requires that a manufacturer certificate be granted under Subpart 561 of the CARs.*
- (ii) *Prior to Dec 2009, TCCA approved the design of an appliance through the issuance of an appliance TC where the certification basis was based on adopted FAA Technical Standard Orders or standards defined through the issuance of a Special Condition. The authority to manufacture the appliance requires that a manufacturer certificate be granted under Subpart 561 of the CARs. These appliance TCs do not confer installation approval.*
- (iii) *Where the certification basis of a TCCA appliance TC consists of a TSO standards discussed in 2.8.1, that appliance will be automatically accepted as set out in 2.8.2 and 2.8.3.*
- (iv) *CAN-TSO-C148 fasteners, CAN-TSO-C149 bearings, and CAN-TSO-C150 seals are not eligible for approval through an UKTSOA. The CAA considers such parts to be standard parts and as such they do not require approval under an UKTSOA.*

2.8.1 TECHNICAL STANDARD ORDERS

- (1) Except as stated in (3) below, the Participants have established that their respective Technical Standard Orders (TSO) have sufficient technical equivalencies to enable reciprocal acceptance under these Technical Implementation Procedures. With such equivalencies there is merit in automatically accepting each other's TSO approvals without the need for an application or validation activity by the VA.
- (2) The Participants understand that they have unique Technical Standard Orders that have no technical equivalence in the other's regulatory system. Given the level of confidence in each other's design approval system, and acknowledging that TSOs are not installation approvals in themselves, the level of risk of accepting unique TSOs are no different to common TSOs. As such, the Participants will extend acceptance of each other's unique TSOs under these Technical Implementation Procedures.
- (3) The Participants understand that TSO approvals for Auxiliary Power Units (APU) will be an exception to reciprocal acceptance and require the preparation of an application to the VA as detailed in Appendix C4.0.

2.8.2 ACCEPTANCE OF NON-TSO FUNCTIONS

- (1) The Participants understand that the VA will accept, without further validation, data related to non-TSO functions that are integrated into an appliance approved to a TSO when:
 - (a) the non-TSO functions included in the appliance do not interfere with the functionality of the appliance and/or its ability to comply with the TSO;
 - (b) the data provided with the appliance relative to non-TSO functions is valid data as processed by the CA; and
 - (c) the non-TSO functions are covered under the TSO design approval holder's quality system.
- (2) The Participants understand that the acceptance of this additional data does not constitute installation approval.

2.8.3 RECIPROCAL ACCEPTANCE

- (1) When either Participant grants its UKTSOA or CAN-TSO design approval, the other Participant will automatically accept that approval and an application for validation will not be required.
- (2) The Participants understand that the reciprocal acceptance of a UKTSOA or a CAN-TSO design approval under these Technical Implementation Procedures will be based on the following conditions:
 - (a) the appliance meets the CA's TSO, as evidenced by a statement or declaration of conformity by the UKTSOA or the CAN-TSO design approval holder;
 - (b) if applicable, deviations or exemptions from a TSO are substantiated and have been approved by the CA in conformity with the requirements of its regulatory system;
 - (c) the CA has determined compliance and as a result issued its own UKTSOA or CAN-TSO approval, in accordance with its regulations; and
 - (d) the CA issuing the UKTSOA or CAN-TSO approval, exercises continued safety oversight functions for those TSO products.

2.9 RECIPROCAL ACCEPTANCE OF REPLACEMENT PARTS

2.9.1 REPLACEMENT PARTS

- (1) The Participants understand that the term replacement part, as used in these Technical Implementation Procedures, means a part intended to be installed in place of a part specified in the type design of a civil aeronautical product. The references to a replacement part approval in these Technical Implementation Procedures are:
 - (a) For the CAA, a replacement part design approved using a Supplemental Type Certificate (STC); and
 - (b) For TCCA, a replacement part design approved using a Part Design Approval (PDA).
- (2) The Participants will not approve a replacement part where that part is a critical part or a life-limited part. These parts will be approved using an STC as set out in 2.6.

2.9.2 RECIPROCAL ACCEPTANCE

- (1) Except as stated in (2) below, the Participants understand that when they issue their own approval for a replacement part as set out in 2.9.1 above, any such approval will be automatically accepted by the other Participant as being equivalent to the issuing of its own replacement part approval. In such a case, an application and a validation will not be required. The reciprocal acceptance of replacement parts under these Technical Implementation Procedures is based on the following underlying conditions:
 - (a) One of the Participants is the CA of the replacement part;
 - (b) the replacement part applies to a civil aeronautical product that has been certified or validated by both Participants, regardless of the State of Design of the product;
 - (c) the replacement part has been approved in accordance with the approval procedures of the CA of the replacement part;
 - (d) the CA that issued the approval will exercise continued safety oversight functions for those replacement parts; and
 - (e) any additional conditions defined in Appendix C5.1 are, or have been, adhered to.
- (2) Each Participant will apply, without further investigation, the reciprocal acceptance of replacement parts under these Technical Implementation Procedures, unless the conditions for reciprocal acceptance are no longer met.

Notes:

- (i) *At the time of signing of the WA, the CAA had no standalone design approval for a replacement part. CAA approves replacement parts through the issuance of an STC.*
- (ii) *TCCA will automatically accept those STCs issued by CAA where it can be clearly established that the approval is for a replacement part, which meets the conditions of (1) above.*
- (iii) *TCCA does not issue PDA for life-limited parts.*

2.10 REPAIR DESIGN

- (1) Except as stated in (2) below, when one Participant issues its approval for a repair design, the other Participant will automatically accept such approval as being equivalent to its own approval. In this case, an application and a validation will not be required. The reciprocal acceptance of repair design approvals under these Technical Implementation Procedures is based on the following underlying conditions:
 - (a) One of the Participants is the CA for the repair design;
 - (b) the repair data applies to a civil aeronautical product that has been certified or validated by both Participants, regardless of the State of Design of the product;
 - (c) the repair design has been approved in accordance with the approval procedures of the CA for the repair;
 - (d) the Participant that granted or issued the approval exercises continued safety oversight functions for that repair design; and
 - (e) any additional conditions defined in Appendix C6.0 are adhered to.
- (2) The Participants understand that the VA will require the submission of an application for a repair design for its direct approval when the repair design is for:
 - (a) a critical part or a life-limited part, if the repair design was developed by a person other than the holder of the TC, STC or other equivalent approval for the affected civil aeronautical product; or
 - (b) an area that is the subject of an airworthiness directive by the VA, unless such airworthiness directive allows for the acceptance of a repair design approved by the CA.
- (3) Each Participant will apply, without further investigation, the reciprocal acceptance of repair design approvals under these Technical Implementation Procedures, unless the conditions for reciprocal acceptance are no longer met.
- (4) The Participants will notify each other of changes to their repair design approval processes or procedures that affect the validity of a repair design accepted under these Technical Implementation Procedures.

2.11 EVALUATION OF OPERATIONAL AND MAINTENANCE ASPECTS

- (1) The Participants will evaluate the operational and maintenance aspects of the TC, STC, and repair design using their own respective internal procedures, or using a common procedure that provides for a single assessment acceptable to both Participants.
- (2) The Participants understand that for an initial issue or a revision of a Maintenance Review Board (MRB) / Maintenance Type Board (MTB) Report (Report), the CA approved Report will be accepted by the VA. Where the conditions of (3) are not satisfied, (4) provides a means for validation of MRB/MTB Reports to be completed.