
IMPLEMENTATION PROCEDURES

FOR

AIRWORTHINESS

DESIGN APPROVAL, PRODUCTION 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 Republic of Singapore
for Promotion of Aviation Safety

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IMPLEMENTATION PROCEDURES

for

Airworthiness

Covering

Design Approval, Production Activities, Export Airworthiness Approval, Post Design Approval Activities, and Technical Assistance

SECTION I GENERAL

1.1 Authorization

These Implementation Procedures for Airworthiness (IPA) are authorized by Article III of the Agreement between the Government of the Republic of Singapore and the Government of the United States of America (U.S.) for Promotion of Aviation Safety, dated February 24, 2004, also known as the Bilateral Aviation Safety Agreement (BASA), or "BASA Executive Agreement." In accordance with Article III of the BASA Executive Agreement, the Civil Aviation Authority of Singapore (CAAS) and the Federal Aviation Administration (FAA) have determined that the aircraft certification systems of each authority for the design approval, production approval, airworthiness approval, and continuing airworthiness of the civil aeronautical products and articles identified in this document are sufficiently compatible in structure and performance to support these Implementation Procedures. These Implementation Procedures replace the previously signed IPA dated September 18, 2007.

1.2 Purpose

The purpose of these Implementation Procedures is to define the civil aeronautical products and articles eligible for import into the U.S. and the Republic of Singapore (see Section II of these Implementation Procedures), the process for obtaining eligibility for import, and the means for providing continued support of those civil aeronautical products and articles after import.

1.3 Principles

These Implementation Procedures are based on mutual confidence and trust between the FAA and the CAAS on their technical competence, regulatory capabilities, and similarities of each other's certification and approval systems. When a finding is made by the Certifying Authority (CA) in accordance with the laws and regulations of the Validating Authority (VA) which are within the scope of these Implementation Procedures, that finding is given the same validity as if it were made by the VA. Therefore, the fundamental principle of these Implementation Procedures is to maximize the use of the Certifying Authority aircraft certification system to ensure that the airworthiness requirements and environmental requirements of the Validating Authority are satisfied.

1.3.1 The FAA and the CAAS agree that all information, including technical documentation, exchanged under these Implementation Procedures will be in

the English language. The authority will ensure that any translated documents will have the same legal interpretation as the original documents.

1.3.2 The FAA and the CAAS mutually recognize each other's delegation and designee systems as part of their aircraft certification systems.

1.3.2.1 Findings made in accordance with these Implementation Procedures through these systems are given the same validity as those made directly by the FAA or the CAAS.

1.3.2.2 The FAA and the CAAS understand there may be occasional situations where, upon prior notification to the other authority, either authority may interact directly with an individual designee of the other country. Unless agreed for specific projects, the FAA and the CAAS are not required to notify the other of designees or representatives of delegated organizations traveling to the U.S. or Singapore to make findings of compliance and/or to perform conformity inspections.

1.4 Changes in the Authority Aircraft Certification Systems

1.4.1 These Implementation Procedures are based upon sufficiently compatible certification systems being in place at the time of signing. Therefore, the FAA and the CAAS will keep each other informed of significant changes within those systems, such as:

- (a) Statutory responsibilities;
- (b) Organizational structure (e.g., key personnel, management structure, technical training, office location);
- (c) Significant revisions to airworthiness, certification, and environmental standards and procedures;
- (d) Production quality system oversight, including oversight of out-of-country production of products and articles; or
- (e) Delegated functions or the kinds of organizations to which functions have been delegated.

1.4.2 The FAA and the CAAS recognize that revision by either authority to its regulations, policies, procedures, statutory responsibility, organizational structure, production quality system oversight, or delegation system may affect the basis and scope of these Implementation Procedures. Accordingly, upon notice of such changes by one authority, the other authority may request a meeting to review the need for amendment to these Implementation Procedures.

1.5 Governance

1.5.1 The FAA and the CAAS agree to meet, through management meetings, as necessary, to review these Implementation Procedures and ensure their continued validity. The frequency of these meetings will be mutually agreed upon by both authorities and will depend on the number and significance of the issues to be discussed between the authorities. These meetings will assist in bilateral relations issues and continued confidence building in the

partnership. Every effort should be made to alternate the location of these meetings between the U.S. and the Republic of Singapore.

1.6 Applicable National Requirements, Procedures, and Guidance Material.

1.6.1 The FAA's standards for aircraft airworthiness and environmental certification include, but are not limited to, Title 14 of the Code of Federal Regulations (14 CFR), parts 1, 21, 23, 25, 26, 27, 29, 31, 33, 34, 35, and 36. The FAA also uses European Aviation Safety Agency (EASA) Certification Specifications (CS)-22, CS-VLA (Very Light Aircraft), Joint Aviation Requirements (JAR)-22, and JAR-VLA for some special class aircraft. Guidance material, policy, and procedures are contained in FAA Advisory Circulars (AC), Orders, Notices, and Policy Memoranda.

1.6.2 CAAS' standards for aircraft airworthiness certification are contained in the Air Navigation Act (ANA), Air Navigation Order Part III and the Singapore Airworthiness Requirements (SAR), SAR Parts 21 and 39, and related Airworthiness Notices. Guidance material is contained with SAR Parts 21 and 39 and Advisory Circulars. Policies and procedures are contained in CAAS' Airworthiness/Flight Operations Procedures.

1.7 Technical Consultations.

1.7.1 The FAA and the CAAS may notify each other of draft policy and guidance material and consult on new article performance standards or proposed changes to these standards.

1.7.2 The FAA and the CAAS agree to consult as necessary to provide input when requested on technical issues and resolve technical disagreements. The frequency of these exchanges will depend on the number and significance of the issues to be discussed.

1.8 Interpretations and Resolution of Conflicts between the FAA and the CAAS

1.8.1 In the case of conflicting interpretations of the laws, certification, airworthiness or environmental regulations or standards, requirements, or acceptable means of compliance pertaining to certifications, approvals, or acceptance under these Implementation Procedures, the interpretation of the civil aviation authority whose law, regulation, standard, requirement, or acceptable means of compliance is being interpreted will prevail.

1.8.2 The FAA and the CAAS agree to resolve issues through consultation or any other mutually agreed-upon means. Every effort should be made to resolve issues at the working staff level before elevating issues through the responsible management hierarchy (which may include other offices outside of the division, but within Aircraft Certification Service for the FAA.) in accordance with the following processes.

1.8.2.1 For the FAA:

- (a) When the project manager (PM) and project certification engineer cannot agree, the first certification decision point is the local office manager, who may consult with the CAAS Deputy Head, Airworthiness Engineering.

- (b) If resolution cannot be reached, the issue shall be raised expeditiously with a Manager, who shall consult with the CAAS Head, Airworthiness Engineering, as applicable.
- (c) If resolution cannot be reached, the Manager shall consult with the Aircraft Certification Service (AIR) Executive Director as appropriate.
- (d) The Aircraft Certification Service Executive Director shall resolve the matter or consult with the CAAS Airworthiness/Flight Operations Director.

1.8.2.2 For CAAS:

- (a) When the project lead and project certification engineer cannot agree, the first certification decision point is the CAAS Deputy Head, Airworthiness Engineering, who may consult with the local FAA office manager.
- (b) If resolution cannot be reached, the issue shall be raised expeditiously with the CAAS Head, Airworthiness Engineering, who shall consult with the FAA Manager.
- (c) If resolution cannot be reached, the Airworthiness/Flight Operations Director shall resolve the matter or consult with the FAA Aircraft Certification Service Executive Director.

1.9 Notification of Investigation or Enforcement Action

1.9.1 The FAA and the CAAS will notify each other promptly of any investigation and subsequent closure action due to a finding of non-compliance that falls within the scope of these Implementation Procedures. The notification will be sent to the other authority's point of contact identified in Appendix A to these Implementation Procedures.

1.9.2 The FAA and the CAAS agree to mutual cooperation and mutual assistance in the investigation of any alleged or suspected violations of the CAAS or FAA laws or regulations. Both authorities will cooperate in sharing information needed for any investigation or enforcement action including closure. The sharing of information will be subject to the laws and regulations of the U.S. and the Republic of Singapore that govern the disclosure or sharing of the requested information.

1.10 Revisions, Amendments, Addendum, and Points of Contact.

1.10.1 These Implementation Procedures may be revised or amended by mutual consent of the FAA and the CAAS. Such revisions or amendments will be made effective by signature of the duly authorized representative of the FAA and the CAAS.

1.10.2 An addendum may be used to document the scope for Table 2 of the IPA, Section II: Summary of Republic of Singapore State of Design Products, Articles, and their Associated CAAS Approvals Eligible for Approval by the FAA. An addendum may be revised together by the FAA and CAAS to expand the types of products and articles accepted within the current scope of the IPA as new applications are reviewed under the note in section 2.3.1. Addendum changes may be with mutual consent made by consultations between

technical offices without an amendment to the IPA. Addendums shall be signed by at least the Executive Director of Aircraft Certification Service for the FAA and Director for Airworthiness/Flight Operations Division for the CAAS.

1.10.3 The designated focal points for these Implementation Procedures are:

1.10.3.1 For the FAA: Aircraft Certification Service, International Division; and

1.10.3.2 For the CAAS: Airworthiness Flight Operations Division.

Note: Contact information for the identified offices is listed in Appendix A.

1.11 Entry into Force and Termination

These Implementation Procedures will enter into force upon signature and will remain in force until terminated by either party. In accordance with Article V of the BASA Executive Agreement, dated February 24, 2004; and Section 1, paragraph 1.8 of the Implementation Procedures for Airworthiness (IPA) dated September 18, 2007, entry into force of these Implementation Procedures will terminate the IPA dated September 18, 2007.

Either the FAA or the CAAS may terminate these Implementation Procedures upon providing sixty (60) days written notice to the other party. Termination will take effect at the expiry of the sixty (60) days and will not affect the validity of activities conducted under these Implementation Procedures prior to termination.

1.12 Definitions

Notwithstanding the definitions set forth in Title 14 of the Code of Regulations and the Singapore Airworthiness Requirements, for purposes of these Implementation Procedures, the following definitions are provided. Additional definitions can be found in Article II of the BASA Executive Agreement. If there is any inconsistency between the definitions in these Implementation Procedures and those of Article II of the BASA Executive Agreement, the definitions in these Implementation Procedures shall prevail.

1.12.1 "Acoustical Change" means any voluntary change in the type design of an aircraft that may increase the noise levels of that aircraft (regardless of its classification of major or minor per 14 CFR 21.93(a)). (Ref. 14 CFR 21.93(b)).

1.12.2 "Additional Technical Condition" means a requirement of the importing State that is in addition to the applicable airworthiness and environmental requirements of the State of Design or that may be prescribed:

1.12.2.1 For airworthiness requirements, that provides a level of safety equivalent to that provided by the applicable airworthiness requirements for the importing State.

1.12.2.2 For environmental requirements, that provides noise, fuel venting, and exhaust emission levels no greater than those provided by the applicable environmental requirements of the importing State.

1.12.3 "Airworthiness Approval" means a document issued by the FAA, an FAA designee, or the CAAS for an aircraft, aircraft engine, propeller, or article which certifies that the aircraft, aircraft engine, propeller, or article conforms to its approved design and is in a condition for safe operation.

- 1.12.4 “Airworthiness Directives” (AD) means legally enforceable rules issued by the FAA in accordance with 14 CFR part 39 or legally enforceable rules issued by the CAAS in accordance with SAR Part 39.
- 1.12.5 “Airworthiness Standards” means regulations governing the design and performance of civil aeronautical products and articles.
- 1.12.6 “Appliance” means any instrument, mechanism, equipment, part, apparatus, appurtenance, or accessory, including communications equipment, that is used or intended to be used in operating or controlling an aircraft in flight, is installed in or attached to the aircraft, and is not part of an airframe, aircraft engine, or propeller.
- 1.12.7 “Article” means a material, part, component, process, or appliance.
- 1.12.8 “Certificating Civil Aviation Authority” or “Certificating Authority” means the organization within the State of Design, charged by the laws of the State, to regulate the design, production, and airworthiness approval and environmental certification of civil aeronautical products and articles.
- 1.12.9 “Civil Aeronautical Product” or “Product” means any civil aircraft, aircraft engine, or propeller.
- 1.12.10 “Compliance Determination” means the determination, by either the certificating authority’s system or the validating authority’s system, that the applicant has demonstrated compliance with identified, airworthiness and environmental requirements.
- 1.12.11 “Critical Component” means a part identified as critical by the design approval holder during the product type validation process or otherwise by the authority for the State of Design. Typically, such components include articles for which a replacement time, inspection interval, or related procedure is specified in the Airworthiness Limitations section or certification maintenance requirements of the manufacturer’s maintenance manual or Instructions for Continued Airworthiness.
- 1.12.12 “Design Approval” means a type certificate (including amended and supplemental type certificates) or the approved design under a Parts Manufacturer Approval (PMA), Technical Standard Order (TSO) authorization, letter of TSO design approval, Singapore Technical Standard Order (STSO) Certificate of Approval, or other approved design.
- 1.12.13 “Deviation” when used with respect to Technical Standard Order articles means a difference from any performance standard of a TSO and requires factors or design features providing an equivalent level of safety to compensate for the standards from which a deviation is requested.
- 1.12.14 “Environmental Approval” means an approval issued when a civil aeronautical product has been found to comply with standards concerning noise, fuel venting, and/or exhaust emissions.
- 1.12.15 “Environmental Standards” means regulations governing designs with regard to noise characteristics, fuel venting, and exhaust emissions of civil aeronautical products and articles.
- 1.12.16 “Environmental Testing” means a process by which the design or change to a design of a civil aeronautical product or article is evaluated for compliance

with applicable standards and procedures concerning noise, fuel venting or exhaust emissions.

- 1.12.17 “Equivalent Level of Safety Finding” means a finding that alternative action taken provides a level of safety equal to that provided by the requirements for which equivalency is being sought.
- 1.12.18 “Exemption” means a grant of relief from requirements of a current regulation when processed through the appropriate regulatory procedure by the FAA or the CAAS.
- 1.12.19 “Export” means the product or article is released from a civil aviation authority’s regulatory system for subsequent use in another civil aviation authority’s regulatory system.
- 1.12.20 “Familiarization” means the process whereby the validating authority obtains information and experience on an aeronautical product designed in the exporting State in order to: prescribe additional technical conditions for that product; mandate corrective airworthiness action in the event that the product experiences service difficulties during its operation in the importing State; and ensure the development of appropriate maintenance, operating, and pilot type rating information (if applicable) for the product.
- 1.12.21 “Finding” means a determination of compliance or non-compliance as the result of a civil aviation authority’s review, investigation, inspection, test, and/or analysis.
- 1.12.22 “Import” means to enter a product or article into a civil aviation authority’s regulatory system for subsequent use in that civil aviation authority’s regulatory system.
- 1.12.23 “Issue Paper” means a document representing an item that requires resolution prior to the issuance of a U.S. Type Certificate (TC), a Supplemental Type Certificate (STC), or a CAAS STC.
- 1.12.24 “Letter of Design Approval (LODA)” means a letter issued by the FAA granting approval for an article manufactured outside the United States that meets a specific TSO.
- 1.12.25 “Licensing Agreement” means a commercial agreement between a TC or STC holder and a production approval holder (or applicant) formalizing the rights and duties of both parties to use the design data for the purpose of manufacturing the product or article.
- 1.12.26 “Maintenance” means the performance of inspection, overhaul, repair, preservation, and the replacement of articles, materials, appliances, or components of a product to assure the continued airworthiness of that product, but excludes modifications.
- 1.12.27 “Major Repair” means a repair that might appreciably affect weight, balance, structural strength, performance, powerplant operation, flight characteristics, or other qualities affecting airworthiness; or a repair that is not done according to accepted practices or cannot be done by elementary operation.
- 1.12.28 “Manufacturer” means the person or entity that, by FAA or the CAAS regulation, is responsible for determining that all products or articles thereof produced within the quality system conform to an FAA- or CAAS-approved

design or established government or industry standard and are in a condition for safe operation.

- 1.12.29 “Minor Repair” means a repair other than a major repair.
- 1.12.30 “Modification” means a change that is new to a product or article and approved under a major or minor change determination within the applicable authority’s regulations.
- 1.12.31 “Multi-National Consortium” means a group of manufacturers from multiple countries who have agreed to form a single company for the design and/or production of a particular product.
- 1.12.32 “New Aircraft” means an aircraft that is still owned by the manufacturer, distributor, or dealer, or their trustee, if there is no intervening private owner, lease, or time sharing arrangement, and the aircraft has not been used in any pilot school and/or other commercial operation.
- 1.12.33 “Non-TSO Function” means a function that is not covered by a TSO-approved minimum performance standard, does not support or affect the hosting article’s TSO function(s), and could technically be implemented outside of the TSO article.
- 1.12.34 “Overhauled Engine” means an engine that has been disassembled, cleaned, inspected, repaired as necessary, reassembled, and tested in accordance with approved or acceptable standards and technical data.
- 1.12.35 “Parts Manufacturer Approval” (PMA) means a combined design and production approval issued by the FAA for modification and replacement articles. It allows a manufacturer to produce and sell these articles for installation on type certificated products.
- 1.12.36 “Person” means an individual, firm, partnership, corporation, company, association, joint stock association, or government entity, and includes a trustee, receiver, assignee, or other similar representative of any of them.
- 1.12.37 “Product” or “Civil Aeronautical Product” means any civil aircraft, aircraft engine, or propeller.
- 1.12.38 “Production Approval” means a document issued by the FAA to a person who allows the production of a product or article in accordance with it’s approved design and approved quality system, and can take a form of a production certificate, a PMA, or a TSO authorization.
- 1.12.39 “Production Certificate Extension” means an extension by the FAA of a Production Certificate to a facility located in another country or jurisdiction that has a bilateral agreement with the U.S.
- 1.12.40 “Production Organisation Approval” means an approval issued by the CAAS to an organisation that allows the production of a product or article in accordance with approved design.
- 1.12.41 “Production Quality System” means a systematic process which meets the requirements of the authority for the State of Manufacture and ensures that products and articles will conform to the approved design and will be in a condition for safe operation.

- 1.12.42 “Rebuilt Engine” means an engine that has been disassembled, cleaned, inspected, repaired as necessary, reassembled, and tested to the same tolerances and limits as a new item, using either new parts or used parts that either conform to new part tolerances and limits or to approved oversized or undersized dimensions.
- 1.12.43 “Restricted Category Aircraft” means an aircraft that meets the airworthiness requirements for special purpose operations if it shows compliance with the applicable noise requirements, shows no feature or characteristic that makes it unsafe when it is operated under the limitations prescribed for its intended use, and/or is the type that has been manufactured in accordance with the requirements of and accepted for use by, a branch of the Armed Forces of the United States and has been later modified for a special purpose.
- 1.12.44 “Special Condition” means an additional airworthiness standard(s) prescribed by the FAA or the CAAS when the airworthiness standards for the category of product do not contain adequate or appropriate safety standards due to novel or unusual design features. Special Conditions contain such safety standards as the FAA or the CAAS find necessary to establish a level of safety equivalent to that established in the applicable regulations.
- 1.12.45 “Standard Part” means a part that is manufactured in complete compliance with an established government or industry-accepted specification, which contains 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 the part.
- 1.12.46 “State of Design” (SoD) means the State of territory having jurisdiction over the authority responsible for the type design and continued airworthiness of a civil aeronautical product or article.
- 1.12.47 “State of Manufacture” (SoM) means the State or territory having regulatory authority over the organization responsible for the production and airworthiness of a civil aeronautical product or article.
- 1.12.48 “Streamlined Validation” means a process where the validating authority accepts the certification and design data provided by the certifying authority as the basis upon which the validating authority’s design approval will be issued without any further technical involvement.
- 1.12.49 “Supplier” means a person at any tier in the supply chain who provides a product, article, or service that is used or consumed in the design or manufacture of, or installed on, a product or article.
- 1.12.50 “Technical Standard Order” (TSO) means a minimum performance standard used to evaluate an article. Each TSO covers a certain type of article. When authorized to manufacture an article to a TSO standard, this is referred to as a TSO Authorization.
- 1.12.51 “Technical Standard Order Authorization” (TSOA) means a design and production approval issued to the manufacturer of an article that has been found to meet a specific TSO. A TSOA is not an approval to install and use

the article in the aircraft. It means that the article meets the specific TSO and the applicant is authorized to manufacture it.

- 1.12.52 “Used Aircraft” means any aircraft that is not a new aircraft, as defined in paragraph 1.12.32 above.
- 1.12.53 “Validating Civil Aviation Authority” or “Validating Authority” means the organization within the importing State, charged by the laws of the importing State to fulfill the ICAO responsibilities of a State of Registry (SoR) to regulate the design, production, and airworthiness approval and environmental certification of civil aeronautical products and articles.
- 1.12.54 “Validation” means the FAA or the CAAS process for issuing an approval of a design certificated by the other.

SECTION II SCOPE OF THESE IMPLEMENTATION PROCEDURES

2.1 General

These Implementation Procedures cover the products and articles identified below, their approvals, and the provisions set forth in the following paragraphs.

2.1.1 Airworthiness Certification

These Implementation Procedures apply to such aircraft type designs to be type certificated by the FAA and the CAAS for standard category airworthiness certification.

2.1.1.1 The FAA and the CAAS do not normally issue design approvals for products or articles manufactured outside its respective regulatory jurisdictions unless there is a demonstrated U.S. or Republic of Singapore interest or for an aircraft for which the U.S. is the State of Design (SoD).

2.1.1.2 For the FAA, standard airworthiness certificates are issued in the normal, utility, acrobatic, commuter, and transport categories of aircraft, as well as for manned-free balloons and special classes of aircraft, which include airships, very light airplanes (VLA), gliders, and powered lift.

2.1.1.3 Aircraft for which a special airworthiness certificate is issued by the FAA or a permit to fly by the CAAS will be dealt with on a case-by-case basis through the special arrangements provision in Section IX of these Implementation Procedures.

2.2 Products, Articles, and Associated Approvals Eligible for Import by the Republic of Singapore under these BASA Implementation Procedures

2.2.1 CAAS Acceptance of the Following FAA-Approved Design Approvals and Changes as the Basis for the CAAS approval:

- (a) Type Certificates (TC) for products for which the U.S. is the State of Design;
- (b) FAA Technical Standard Order Authorizations (TSOA);
- (c) FAA Parts Manufacturer Approval (PMA) articles.
- (d) Amended Type Certificates for products for which the U.S. is the State of Design;
- (e) Supplemental Type Certificates (STC) or Amended STCs for all products regardless of State of Design; and
- (f) Other FAA-approved design changes as identified in paragraph 3.13, for products and articles for which the U.S. is the State of Design.

2.2.2 CAAS Acceptance of the Following FAA-Approved Design Data:

- (a) FAA-approved design data used in the support of repairs as identified in paragraph 3.13.9, for products and articles regardless of State of Design.

2.2.3 CAAS Acceptance of FAA Export Certificates of Airworthiness (CofA) for the Following Products:

2.2.3.1 Aircraft that Conform to a Type Design approved under a Type Certificate accepted by the CAAS:

- (a) New and used aircraft of the classes and categories listed in Table 1 for which the U.S. is the SoD and State SoM;
- (b) New and used aircraft for which a third country is the SoD and U.S. is the SoM,
- (c) Used aircraft for which a third state is the SoD and SoM, that are subsequently exported from the United States to Singapore

Note: Acceptance of FAA export CofA for aircraft manufactured in a country or territory other than its State of Design requires either the development of a Special Arrangement per Section IX of these Implementation Procedures or the CAAS review and acceptance of an existing arrangement established between the State of Design and State of Manufacture. This applies to paragraph 2.2.3.1(b) and (c).

2.2.4 CAAS Acceptance of FAA Authorized Release Certificates for the Following Engines, Propellers, and Articles:

2.2.4.1 Engines and Propellers that Conform to a Type Design Approved under a Type Certificate accepted by the CAAS Including:

- (a) New, used, rebuilt, and overhauled engines for which the U.S. is the SoD and SoM;
- (b) New, used, rebuilt, and overhauled engines for which a third country is the SoD and U.S. is the SoM;
- (c) Propellers for which the U.S. is the SoD and SoM; and
- (d) Propellers for which a third country is the SoD and U.S. is the SoM.

See Summary Table 1, at the end of this Section, for listing of the classes and categories of U.S. products and associated approvals eligible for import into Singapore.

Note: Acceptance of products manufactured in a country or territory other than its State of Design requires either the development of a Special Arrangement per Section IX of these Implementation Procedures or the CAAS review and acceptance of an existing arrangement established between the State of Design and State of Manufacture. This applies to paragraphs 2.2.4.1(b) and (d).

2.2.4.2 Articles that Conform to a CAAS Design Approval Including:

- (a) New TSO articles; and
- (b) New replacement and modification articles that conform to CAAS-approved design data and that are eligible for installation in a product or article that has been granted a CAAS design approval, as follows:

- (1) Replacement articles manufactured by the original production approval holder for all products and articles, regardless of the State of Design, and
- (2) Modification articles manufactured by the original production approval holder for all products and articles, regardless of the State of Design.

2.2.5 CAAS Acceptance of FAA Part Manufacturer Approval (PMA)

2.2.5.1 The CAAS will accept new FAA PMA articles if the design approval for the articles is accepted by CAAS under a Type Certificate or validated under a Supplemental Type Certificate.

2.2.6 CAAS Acceptance of Standard Parts

2.2.6.1 The CAAS will accept Standard Parts for all products and articles covered under these Implementation Procedures when they conform to established U.S. industry or government specifications, or to an FAA articles TSO (e.g., TSO C148, C149, and C150).

2.2.7 CAAS Acceptance of FAA Findings for Environmental Requirements as the Basis for the CAAS Compliance Findings:

2.2.7.1 Noise certification requirements under 14 CFR part 36 for subsonic transport category large airplanes and subsonic turbojet powered airplanes;

2.2.7.2 Noise certification requirements under part 36 for propeller-driven small airplanes and propeller-driven commuter category airplanes;

2.2.7.3 Noise certification requirements under part 36 for helicopters; and

2.2.7.4 Fuel venting and exhaust emissions certification requirements under 14 CFR part 34 for turbine powered airplanes.

2.3 Products, Articles, and Associated Approvals Eligible for Import by the U.S. under these BASA Implementation Procedures

2.3.1 FAA Acceptance of the Following CAAS-Approved Design Approvals and Changes as the Basis for FAA Design Change Approval:

2.3.1.1 STCs or amended STCs (as defined in paragraph 3.3.1.1) for the classes and categories for transport category airplanes regardless of the State of Design with limitations as identified in Addendum to the IPA;

2.3.1.2 Singapore Technical Standard Order (STSO) Certificate of Approval

2.3.1.3 Other CAAS-approved design changes as identified in paragraph 3.13 for products and articles for which the Republic of Singapore is the State of Design.

NOTE: STC and TSO applications made to FAA may be eligible for Streamlined Validation if they meet certain criteria as described in the Addendum of the IPA. In addition, when the CAAS intends to submit an application for the validation of a CAAS STC to the FAA in a technical area that is not within the current scope of this IPA, the CAAS will contact the applicable FAA office indicated in Appendix A and communicate the CAAS' intentions. For such cases, the FAA may elect to

conduct a technical evaluation of the CAAS's understanding of the applicable airworthiness requirements simultaneously with validation of the CAAS approval. The result of the technical evaluation will determine the FAA level of involvement.

2.3.2 FAA Acceptance of the Following CAAS-Approved Design Data:

2.3.2.1 CAAS-approved design data used in support of repairs as identified in paragraph 3.13.9.3, for:

- (a) Singapore State of Design (limited to products and articles in the scope of Table 2); and
- (b) U.S. State of Design where the CAAS has issued a letter of acceptance of type certificate.

2.3.3 FAA Acceptance of CAAS Export Certificates of Airworthiness for the Following Products:

2.3.3.1 Aircraft that conform to a Type Design approved under an FAA Type Certificate including:

- (a) Used aircraft of the classes and categories listed in Table 1 for which the U.S. is the SoD and SoM.;
- (b) Used aircraft for which a third country is the SoD, when that third country has a bilateral agreement and/or arrangement with the U.S. covering the same class of product.

Note: Acceptance of aircraft manufactured in a country or territory other than its State of Design requires either the development of a Special Arrangement per Section IX or the FAA review and acceptance of an existing arrangement established between the State of Design and State of Manufacture. This applies to paragraphs 2.3.3.1(a), and (b).

2.3.4 Engines and Propellers that Conform to a Type Design Approved Under an FAA Type Certificate (TC):

[Reserved]

2.3.5 FAA Acceptance of CAAS Authorized Release Certificates for the Following Products and Articles:

2.3.5.1 Articles that Conform to an FAA Design Approval Including:

- (a) New TSO articles that meet the performance standards of a U.S. Technical Standard Order (TSO) under an FAA Letter of Design Approval (LODA);
- (b) New replacement and modification articles specified in paragraph 2.3.5.1(a);
- (c) Replacement and repaired articles for which Republic of Singapore is the State of Design for the repair as specified in paragraph 3.13.9.3; and
- (d) New modification articles manufactured by a CAAS-approved production organization for the holder of an FAA STC in an airplane that has been granted an FAA design approval under 14 CFR part 25, regardless of the State of Design, and for

which the Republic of Singapore is the State of Design for the design change.

2.3.6 FAA Acceptance of Standard Parts.

2.3.6.1 The FAA shall accept Standard Parts for all products and articles covered under these Implementation Procedures when they conform to established U.S. or Republic of Singapore industry or government specifications, or to a CAAS Parts STSO.

2.3.7 FAA Acceptance of CAAS Findings for Environmental Requirements as the Basis for FAA Compliance Findings:

[Reserved]

2.4 Provisions for Technical Assistance

The types of technical assistance activities within the scope of these Implementation Procedures between the FAA and the CAAS are specified in Section VIII of these Implementation Procedures.

2.5 Provisions for Special Arrangements

These Implementation Procedures provide for designated officials within the FAA and the CAAS to make special arrangements -- with respect to design approval, production activities, export airworthiness approval, post design approval, or technical assistance -- in unique situations which have not been specifically addressed in these Implementation Procedures, but which are anticipated by the BASA Executive Agreement. Procedures between the FAA and the CAAS for special arrangements are specified in Section IX.

2.6 Summary Tables

The following tables summarize the design approvals and new products designed and manufactured in the U.S. or in the Republic of Singapore that are eligible for import under these Implementation Procedures. (These tables do not show third state products eligible for import.)

Table 1: Summary of U.S. State of Design Products, Articles, and their Associated FAA Approvals Eligible for Approval by the CAAS

| Products/Article Type | Eligible Designs & Design Changes | | Title 14, Code of Federal Regulations | Design Approval Type | | Export Record |
|---------------------------------------|-----------------------------------|-----|---------------------------------------|----------------------|--|-----------------|
| | | | | FAA | CAAS | |
| PRODUCTS | TC | STC | | | | |
| Normal Airplanes | ✓ | ✓ | Part 23 | FAA TC or STC | CAAS Letter of Acceptance of Type Certificate or STC | FAA Form 8130-4 |
| Utility Airplanes | ✓ | ✓ | | | | |
| Acrobatic Airplanes | ✓ | ✓ | | | | |
| Commuter Airplanes | ✓ | ✓ | | | | |
| Transport Airplanes | ✓ | ✓ | Part 25 | | | |
| Normal Rotorcraft | ✓ | ✓ | Part 27 | | | |
| Transport Rotorcraft | ✓ | ✓ | Part 29 | | | |
| Airships | ✓ | ✓ | Part 21 | | | |
| Very Light Airplanes | ✓ | ✓ | | | | |
| Gliders | ✓ | ✓ | | | | |
| Powered Lift | ✓ | ✓ | | | | |
| Manned Free Balloons | ✓ | ✓ | Part 31 | | | |
| Primary | * | * | Part 21 | | | |
| Restricted | * | * | | | | |
| Surplus Military | * | * | | | | |
| Engines (New) | ✓ | ✓ | Part 33 | FAA TC or STC | NA | FAA Form 8130-3 |
| Engines (Rebuilt) | ✓ | ✓ | | | | |
| Engines (Overhauled) | ✓ | ✓ | | | | |
| Propellers | ✓ | ✓ | Part 35 | | | |
| ARTICLES | | | | | | |
| TSO | ✓ | | Part 21 | TSOA | LODA | FAA Form 8130-3 |
| PMA | ✓ ¹ | | | Original Approval | Original Approval | |
| Replacement and Modification Articles | ✓ ² | | | Original Approval | Original Approval | |
| Standard Parts | ✓ | | | None | None | No FAA Form |

Note 1: See paragraph 2.2.5 for description.

Note 2: Replacement and Modification Articles for the above airplanes, rotorcraft, balloons, engines, propellers, special class aircraft, & articles.

Table 2: Summary of Republic of Singapore State of Design Products, Articles, and their Associated CAAS Approvals Eligible for Approval by the FAA

| Products/Article Type | Eligible Designs & Design Changes | | Singapore Aviation Regulations | Design Approval Type | | Export Record |
|---------------------------------------|-----------------------------------|----------------|--------------------------------|----------------------|-------------------|---------------------------|
| | | | | CAAS | FAA | |
| PRODUCTS | TC | STC | | | | |
| Normal Airplanes | {RES} | {RES} | Part 23 | CAAS STC | FAA STC | Export CofA CAAS(AW)82 |
| Utility Airplanes | {RES} | {RES} | | | | |
| Acrobatic Airplanes | {RES} | {RES} | | | | |
| Commuter Airplanes | {RES} | {RES} | | | | |
| Transport Airplanes | {RES} | √ ¹ | Part 25 | | | |
| Normal Rotorcraft | {RES} | {RES} | Part 27 | | | |
| Transport Rotorcraft | {RES} | {RES} | Part 29 | | | |
| Airships | {RES} | {RES} | Part 21 | | | |
| Very Light Airplanes | {RES} | {RES} | | | | |
| Gliders | {RES} | {RES} | | | | |
| Powered Lift | {RES} | {RES} | | | | |
| Manned Free Balloons | {RES} | {RES} | Part 31 | | | |
| Primary | * | * | Part 21 | | | |
| Restricted | * | * | | | | |
| Surplus Military | * | * | | | | |
| Engines (New) | {RES} | {RES} | Part 33 | N/A | N/A | N/A |
| Engines (Rebuilt) | {RES} | {RES} | | | | |
| Engines (Overhauled) | {RES} | {RES} | | | | |
| Propellers | {RES} | {RES} | Part 35 | | | |
| ARTICLES | | | | | | |
| TSO | √ | | Part 21 | STSO | LODA | CAAS(AW) 95 Form |
| PMA | {RES} | | | N/A | N/A | N/A |
| Replacement and Modification Articles | √ ² | | | Original Approval | Original Approval | CAAS(AW) 95 Form |
| Standard Parts | √ | | | None | None | No CAAS Form |

Note 1: See Addendum for further description.

Note 2: Replacement and Modification articles are accepted for certain STCs and repairs, see paragraph 2.3.5., when produced under a Production Organisation Approval (POA). Replacement articles are accepted for FAA-approved articles when produced under a POA.

{RES} means not currently within scope.

SECTION III VALIDATION PROCEDURES

3.1 General

- 3.1.1 The FAA and the CAAS will normally conduct certification activities under a validation process on a product in order to make a finding of compliance and issue its design approval. The validation process is initiated by an application and normally entails a familiarization briefing by the applicant, the acceptance of the certification basis by the validating authority, a technical information exchange in the form of data, specialist meetings on technical compliance, and/or the development of issue papers, establishment of the level of involvement of the certifying authority, compliance determinations, and finally, the issuance of the validated design approval. The design approval issued by the validating authority is based to the maximum extent practicable on the technical evaluations, tests, inspections, and compliance determinations made by the certifying authority. In cases where an application is within scope of the IPA and the validating authority has agreed based on project complexity as well as capability of both the applicant and certifying authority, a Streamlined Validation will be used.
- 3.1.2 A Streamlined Validation process allows the validating authority to make the maximum use of the Bilateral Aviation Safety Agreement by reducing the resource requirements associated with the validation of certifying authority approvals. Information on the Streamlined Validation criteria and processes is found in the Addendum section of this IPA. Otherwise all other applications must follow the normal validation procedures described below.
- 3.1.3 Close cooperation between the validating and the certifying authority is necessary to provide for effective management of the validation process and for the most cost-effective utilization of resources. Working in accordance with the principle that communications should occur between authorities, correspondence will be answered through and coordinated with the certifying authority. The FAA and the CAAS also recognize that direct communications between the validating authority and the applicant are sometimes necessary. Direct communications must be limited to technical questions regarding the product (familiarization) and must be conducted with the awareness and consent of the certifying authority. The certifying authority should be informed of the outcome of these discussions.
- 3.1.4 Applications for FAA or the CAAS approval are intended for civil aeronautical products and articles. Products and articles that are intended only for military and/or public use are not eligible for FAA or the CAAS validation under the Agreement unless the authority for the State of Design has agreed to certify the product or article and there is a civilian and/or public use/application within the jurisdiction of the importing State. In these cases, the FAA and the CAAS will consult to determine whether validation is within the scope of the Agreement or requires a Special Arrangement under Section IX of these Implementation Procedures.
- 3.1.5 The CAAS will only accept TCs for aircraft. Acceptance of an aircraft TC will imply acceptance of the associated engine and/or propellers. For articles certified as part of the TC process, the CAAS will accept the FAA-approved

articles without requiring that such article also receive an additional CAAS design approval.

3.2 Design Approval Procedures for U.S. Type Certificates

3.2.1 [Reserved]

3.3 Design Approval Procedures for U.S. Supplemental Type Certificates

3.3.1 General

3.3.1.1 U.S. STCs may be issued to an applicant located in the Republic of Singapore under the provisions of 14 CFR 21.29 and 21.117 for approval of major changes to the type design of a product (refer to Table 2). Further description is found in the Addendum section of this IPA.

3.3.2 Application Process for U.S. STCs

3.3.2.1 An application for a U.S. STC from an applicant located in the Republic of Singapore may be submitted if:

- (a) The design change is within the scope of this agreement as provided in paragraph 2.3.1;
- (b) The FAA has certificated/validated the product; and
- (c) The CAAS has issued an STC, if available.

3.3.2.2 The applicant must complete FAA form 8110-12 and forward it along with all applicable technical data listed in paragraph 3.3.2.3 to the CAAS.

3.3.2.3 The CAAS must ensure that the applicant's technical data package contains the following information:

- (a) A description of the change, together with the make and model of the airplane;
- (b) A copy of the CAAS STC, if available, and certification basis;
- (c) Date of application to the CAAS for the CAAS STC;
- (d) The applicant's requested date for issuance of the U.S. STC;
- (e) A description of all novel or unusual design features that might necessitate issuance of FAA special conditions; and
- (f) All exemptions, special conditions, or equivalent level of safety findings granted by the CAAS for the Republic of Singapore STC;
- (g) Information to demonstrate application has U.S interest. Information can be in the form of U.S. market potential such as specific customers, delivery schedule, or an STC that contains contents from the U.S.

3.3.2.4 In addition to the application, the following documentation will be required, as applicable, for review by the FAA during the STC approval process:

- (a) Compliance checklist and Means of Compliance;

- (b) Aircraft Flight Manual (AFM) Supplement;
 - (c) Master Documentation list/Master drawing list;
 - (d) Operating and installation instruction manuals/drawings;
 - (e) Maintenance/Repair Manual supplements;
 - (f) Weight and Balance data; and
 - (g) Instructions for Continued Airworthiness; and
 - (h) CAAS certifying statement to FAA certification basis.
- 3.3.2.5 The CAAS should forward the application to the appropriate FAA Aircraft Certification Service branch, based on the class and category of product. Appendix A contains a list of addresses for the FAA Aircraft Certification Service offices.
- 3.3.2.6 The FAA will notify the CAAS within ten (10) working days of receipt of application and, if necessary, include in this notification a request for any missing information. The FAA will return the application in thirty (30) working days if the necessary information is not provided.
- 3.3.2.7 The FAA may accept applications for concurrent STC validation/certification, in which case some of the information specified in paragraphs 3.3.2.3 and 3.3.2.4 may not be available at the time of the application. The CAAS should provide an explanation of why the information is not available at the time of application.
- 3.3.3 Establishment of U.S. Supplemental Type Certificate Certification Basis
- 3.3.3.1 When establishing a certification basis, the FAA will rely to the greatest extent on the CAAS certification basis for supplemental type certificate and introduce any additional technical conditions applied by FAA in accordance with § 21.29. The FAA will notify the CAAS of the additional requirements, if any. The date of the application is the date in which the application is made to the CAAS.
- 3.3.3.2 In the case of an STC involving an acoustical change, compliance must be shown with the applicable noise requirements of part 36 in effect on the date of application to the CAAS for the STC. In the case of an emissions change, compliance must be shown with the applicable fuel venting and exhaust emissions requirements of part 34 in effect on the date of FAA STC approval. Information on FAA environmental testing and approval procedures is contained in Section 3.5.
- 3.3.4 Issuance of the U.S. Supplemental Type Certificate
- 3.3.4.1 The FAA will issue an STC for a Singapore design change when compliance with the applicable U.S. airworthiness and environmental regulations has been verified, the CAAS has made a certifying statement to FAA's certification basis, and the CAAS has issued its STC. The FAA will forward the STC directly to the applicant and notify the CAAS of its issuance.

3.4 Design Approval Procedures for U.S. Technical Standard Order Design Approval

3.4.1 Application Process for an FAA Letter of Design Approval

- 3.4.1.1 An application for an FAA Letter of TSO Design Approval from an applicant located in the Republic of Singapore may be submitted for which a minimum performance standard has been published in an FAA TSO.
- 3.4.1.2 The applicant must forward the application package and include all applicable technical data listed in paragraph 3.4.1.3 to the CAAS.
- 3.4.1.3 The CAAS must ensure that the application package contains the following information:
- (a) All required data/documentation pertaining to the proper installation, performance, operation, and maintenance of the TSO article;
 - (b) If applicable, a request to deviate from the FAA TSO standard (including any CAAS-approved equivalencies) and substantiation data for FAA approval, or identification of the deviation and evidence of FAA approval (if request was made in advance of application);
 - (c) A statement of conformance to the FAA TSO performance standard from the applicant;
 - (d) A certifying statement from the CAAS indicating that the article has been examined, tested, and found to meet the applicable FAA TSO or other standards found by the FAA to provide an equivalent level of safety;
 - (e) If known at the time of application, evidence that the article will be imported into the U.S., installed on a U.S.–registered aircraft, or installed on a U.S.–manufactured product. The evidence must identify the FAA TSO article model at a minimum. The evidence provided must also be valid at the time of application in order for the project to be worked promptly.
- 3.4.1.4 The CAAS should ensure that the applicant has applied for an FAA TSO performance standard that is effective on the date of application to the CAAS. To reduce the possibility of differing TSO revisions when the CAAS accepts the application against the date where the application is submitted to the FAA, the CAAS will inform the FAA once an application is accepted and the FAA will advise if there is a need for compliance to the latest TSO revision (or upcoming revisions), if so determined.

NOTE: Certain TSOs may be eligible for Streamlined Validation. Refer to Addendum for further information. When the CAAS receives an application for an FAA Letter of TSO Design Approval to a TSO performance standard to which the CAAS has not previously made compliance findings, the CAAS will contact the applicable FAA office indicated in Appendix A and communicate the CAAS intentions. For such cases, the FAA may elect to conduct a

technical evaluation of CAAS's understanding of the TSO requirements prior to accepting the application. CAAS should forward the application to the applicable FAA Aircraft Certification Service branch at the address indicated in Appendix A.

3.4.1.5 The FAA will notify the CAAS within ten (10) working days of receipt of application and, if necessary, include in this notification a request for any missing information. The FAA will return the application in thirty (30) working days if the necessary information is not provided.

3.4.1.6 The FAA will consider recognition of other performance standards as the basis for a new TSO design standard after the standard is evaluated by the FAA, and published for public comment. A Republic of Singapore applicant with a CAAS STSO that is based on a performance standard other than an FAA TSO should make a request for approval of this performance standard through the CAAS to the FAA AIR Office. Once the alternative performance standard has been approved and published by the FAA, the application process for the approval of the appliance itself follows the paragraph 3.4.1 above.

3.4.2 Issuance of the FAA Letter of TSO Design Approval

3.4.2.1 In accordance with 14 CFR 21.621, the FAA may issue a Letter of TSO Design Approval after:

- (a) Receipt of all the items identified in paragraph 3.4.1.3, above;
- (b) Conducting a review of the data/documentation specified in the FAA TSO performance standard;
- (c) Receipt and review of other specific technical data, as jointly agreed between the CAAS and the FAA, needed to demonstrate compliance with an FAA TSO standard (e.g., a first-of-a-kind TSO); and
- (d) Approval of all proposed deviations to the FAA TSO standard in accordance with 14 CFR 21.618.

3.4.2.2 The FAA will forward the Letter of TSO Design Approval to the applicant and notify the CAAS of its issuance.

3.4.3 Acceptance of Non-TSO Functions

3.4.3.1 The FAA and CAAS will accept, without further validation, data on non-TSO functions where those functions are integrated into an existing or proposed article when:

- (a) The non-TSO functions included in the article have been shown not to interfere with the TSO functions and/or ability to comply with the TSO standard;
- (b) The data provided with the article relative to non-TSO functions has been processed by the certifying authority; and
- (c) The non-TSO functions are covered under the FAA TSO or STSO approval holder's quality system.

3.4.3.2 The acceptance of data on non-TSO functions does not constitute installation approval.

3.4.3.3 The certificating authority and validating authority may agree to mutual cooperation and technical assistance for the evaluation of non-TSO functions at the product level before granting TSO approval.

3.4.4 Installation Approval

An FAA Letter of Design Approval does not constitute an installation approval for the article on an aircraft. The installer must obtain an installation approval from the applicable civil airworthiness authority for use on an aircraft registered under that authority.

3.5 Environmental Testing and Approval Procedures

3.5.1 General

3.5.1.1 The FAA is authorized to make findings of compliance to parts 34 and 36 based upon FAA-witnessed tests conducted in accordance with FAA-approved test plans. The FAA will review and approve all compliance demonstration plans and reports submitted via the CAAS. The FAA will approve environmental compliance in accordance with FAA Order 8110.4, Type Certification.

3.5.1.2 The CAAS will accept the FAA's findings of compliance to parts 34 and 36.

3.6 Submission of Electronic Data to the FAA

3.6.1 For the FAA, where electronic data is to be submitted to the FAA, it must be in a format that is compatible with the FAA's information systems and there must be an arrangement between the Republic of Singapore applicant and the FAA. When an applicant located in the Republic of Singapore has a procedure for the submission of electronic data comparable to the requirements of FAA Order 8000.79, Use of Electronic Technology and Storage of Data, approved under SAR 21 organisation approval process, the applicant is considered to have an arrangement acceptable to both the FAA and the CAAS for the submission and storage of electronic data.

3.7 Design Approval Procedures for a Republic of Singapore Letter of Acceptance of Type Certificate

3.7.1 General

3.7.1.1 The CAAS does not issue TCs. A Letter of Acceptance of Type Certificate may be issued under the provisions of SAR-21 Subpart A for aircraft imported into the Republic of Singapore that meet the applicable airworthiness design standards of SAR-21 Subpart I.

3.7.2 Application Process for a Republic of Singapore Letter of Acceptance of Type Certificate

3.7.2.1 The procedures for obtaining a CAAS Letter of Type Acceptance are contained in SAR-21.110 and SAR-21.115. A U.S. applicant should submit their application on the CAAS form CAAS(AW)204, and the information specified in SAR-21.110, and related Acceptable Means of Compliance, to the FAA Aircraft Certification Office responsible for managing the applicant's TC.

- 3.7.3 Establishment of the CAAS Type Certification Basis
 - 3.7.3.1 New Type Certificate Acceptance. The CAAS will accept the FAA certification basis in accordance with SAR-21.105(a).
 - 3.7.3.2 Additional requirements. The CAAS will require compliance with the applicable requirements in the Air Navigation Order (ANO), Air Navigation Act (ANA), Singapore Airworthiness Requirement and the applicable Airworthiness Notices. The CAAS will notify the FAA of additional requirements, if any.
 - 3.7.3.3 Environmental (Type) Certification Basis. Refer to paragraph 3.5.
- 3.7.4 Data Submittal & Design Review
 - 3.7.4.1 Each applicant for a Letter of Acceptance of Type Certificate shall provide data required by SAR-21.110 and related Acceptable Means of Compliance (AMC 21.110).
- 3.7.5 Technical Meetings
 - 3.7.5.1 The CAAS, in conjunction with the FAA, will normally convene a technical meeting with the applicant to review the FAA type certification basis and compliance findings in detail.
- 3.7.6 Issuance of the Letter of Acceptance of Type Certificate
 - 3.7.6.1 The CAAS will notify the FAA AIR Office on issuance of the Letter of Acceptance of Type Certificate.
- 3.7.7 Evaluation of Operational and Maintenance Aspects
 - 3.7.7.1 The flight test carried out by the FAA may be sufficient for the type acceptance. The CAAS will accept FAA evaluation of maintenance aspects and the Master Minimum Equipment List.
- 3.8 Design Approval Procedures for Republic of Singapore Acceptance of U.S. Amended Type Certificates
 - 3.8.1 The CAAS does not issue amended TCs. The CAAS accepts amendments to TCs in a manner similar to its acceptance of U.S. TCs in accordance with SAR-21 Subpart B.
 - 3.8.2 Amended TCs that introduce major changes to Republic of Singapore registered aircraft must be approved in accordance with SAR-21 Subpart C.
- 3.9 Design Approval Procedures for Republic of Singapore Acceptance of U.S. Supplemental Type Certificates
 - 3.9.1 General
 - 3.9.1.1 Republic of Singapore STCs are issued under the provisions of SAR-21 Subpart C for the approval of major changes to the type design of an aircraft type that has been accepted by the CAAS.
 - 3.9.2 Application Process for Republic of Singapore Validation of U.S. STCs
 - 3.9.2.1 U.S. applicants must forward all applicable technical data listed in paragraph 3.9.2.3 to the FAA Aircraft Certification Office responsible for the applicant's geographic area listed in Appendix A.

- 3.9.2.2 The FAA should ensure that the applicant's technical data package contains the following information:
- (a) A description of the change, together with the make and model of the product;
 - (b) A copy of the U.S. STC and certification basis (if available);
 - (c) Date of application to the FAA for the FAA STC and to the CAAS;
 - (d) Identification of the means of compliance and a list of the documentation required to show compliance;
 - (e) All exemptions, special conditions or equivalent level of safety findings granted by the FAA for the U.S. STC; and
 - (f) A project schedule identifying when the STC will be installed on a Republic of Singapore registered aircraft.
- 3.9.2.3 The following documentation will be required, as applicable, for review by the CAAS during the STC approval process:
- (a) Compliance Checklist;
 - (b) Aircraft Flight Manual (AFM) Supplement;
 - (c) Master Documentation List/Master Drawing List;
 - (d) Operating and Installation Instruction Manuals/Drawings;
 - (e) Maintenance/Repair Manual Supplements;
 - (f) Weight and Balance data; and
 - (g) Instructions for Continued Airworthiness.
- 3.9.2.4 The FAA should forward the application to the CAAS Airworthiness/Flight Operations Division. Appendix A contains a list of addresses for the CAAS Offices.
- 3.9.2.5 Upon receipt of the application, The CAAS will:
- (a) Notify the applicant of the CAAS fees (if applicable); and
 - (b) Notify the FAA within 10 working days of receipt of application and provide the status of the fees notification noted in 3.9.2.5(a) above. If necessary, the CAAS will include in this notification a request for any missing information. The CAAS will return the application in 30 days if the necessary information is not provided.
- 3.9.2.6 As part of its involvement in the issue of the Republic of Singapore STC, the CAAS may carry out conformity and compliance inspections during the installation on a Republic of Singapore registered aircraft.
- 3.9.3 Establishment of Singapore Supplemental Type Certification Basis
- 3.9.3.1 The CAAS will accept the FAA certification basis for supplemental type certification plus any additional requirements in the Air Navigation Order (ANO), Air Navigation Act (ANA), Singapore Airworthiness Requirement and the applicable Airworthiness Notices. The CAAS will

notify the FAA of the additional requirements, if any.

3.9.3.2 Environmental (Type) Certification Basis. Refer to paragraph 3.5.

3.9.4 Issuance of the Republic of Singapore STC

3.9.4.1 The CAAS will issue an STC when compliance with the applicable CAAS airworthiness requirements has been verified, and the FAA has issued its STC. The CAAS will forward the STC to the applicant and notify the FAA Aircraft Certification Office identified in paragraph 3.9.2.1.

3.10 Design Approval Procedures for the CAAS STSO Certificate of Approval

3.10.1 Application Process for a CAAS STSO Certificate of Approval

3.10.1.1 CAAS design approval for imported TSO articles is signified by the issuance of a STSO Certificate of Approval in accordance with the provisions contained in SAR-21 Subpart E. A U.S. applicant for a STSO Certificate of Approval shall submit an application to the FAA Aircraft Certification Office responsible for the applicant with a request that the application and required information be forwarded to the CAAS at the address indicated in Appendix A.

3.10.1.2 Upon receipt of the application, the CAAS will:

- (a) Notify the applicant of the CAAS fees (if applicable);
- (b) Process the application in accordance with SAR-21 Subpart E; and
- (c) Notify the FAA within 10 working days of receipt of application and provide the status of the fees notification noted in 3.10.1.2(a) above. If necessary, the CAAS will include in this notification a request for any missing information. The CAAS will return the application in 30 days if the necessary information is not provided.

3.10.2 Installation Approval

3.10.2.1 A CAAS letter of TSO Design Approval does not constitute an installation approval for the article on an aircraft. The installer must obtain installation approval from their civil aviation authority for use on an aircraft registered under that authority.

3.11 Submission of Electronic Data to the CAAS

Where electronic data is to be submitted to the CAAS, it must be in a format that is compatible with the CAAS' information systems, and there must be an arrangement between the U.S. applicant and the CAAS. The U.S. applicant may provide a copy of its arrangement with the FAA under FAA Order 8000.79, *Use of Electronic Technology and Storage of Data*, to satisfy this requirement.

3.12 Concurrent Design Approval and Validation Procedures

3.12.1 The FAA and the CAAS may agree to conduct a concurrent design approval and validation process for products within the scope of this agreement. A project may be considered eligible for a concurrent validation when the applicant initiates the certification process with the CA while requesting

validation with the VA. A common type design should be an objective of a concurrent process. Issue Papers may be efficiently addressed in the design development and compliance demonstration portion. This approach may allow the applicant to address Issue Papers during the demonstration of compliance to the State of Design authority certification basis. Sharing of issue papers by the certifying authority will be limited specifically to the project and relevant validation items. Care must be exercised to ensure the responsibilities for the State of Design authority are retained.

3.12.2 A concurrent certification/validation project provides the best opportunities for collaborative development of both FAA and the CAAS use of the latest airworthiness standards, special conditions, exemptions, equivalent level of safety findings and acceptable means of compliance. Additionally, it provides for early identification of areas where jointly agreed solutions are not readily available. In addition to the documentation stated in 3.3.2.3 and 3.9.2.3 submission of the additional documentation may be requested when the validation authority needs to ensure that the design change complies with its specific operational requirements. These documents include and are not limited to analysis reports, test reports and other associated documents.

3.12.3 The FAA and the CAAS will meet early with the applicant to identify their respective applicable standards. The authorities will strive to achieve a common certification basis and acceptable means of compliance to the maximum extent possible. However, the FAA and the CAAS retain responsibility for their respective certification basis. The FAA and the CAAS may mutually develop and document working procedures for such projects.

3.13 Design Change Procedures

3.13.1 Procedures for Changes to a U.S. Type Certificate

[Reserved]

3.13.2 Procedures for Changes to a U.S. Supplemental Type Certificate.

3.13.2.1 Major changes to a U.S. STC, sought by the STC holder, may be issued as amendments to the STC issued, or otherwise approved, by the FAA. A certification procedure similar to that described in paragraph 3.3 shall be applied, but adjusted, as appropriate, for the magnitude and complexity of the change to the STC. The FAA retains the right to determine if the proposed change is so substantial that a new STC is required.

3.13.3 Procedures for Changes to an FAA Letter of Design Approval

3.13.3.1 Major changes to a TSO design require re-substantiation of the new design and the issuance of a new Letter of Design Approval, and shall be done in accordance with the procedures in paragraph 3.4. For minor changes, the FAA will rely upon the CAAS' determination of compliance to the TSO.

3.13.4 Procedures for Changes to a CAAS Type Acceptance

3.13.4.1 The CAAS will usually accept post-certification design changes to type accepted products without need for further showing, unless the change leads to the re-issuance/amendment of the type certificate (in

the case of a new aircraft model or variant), in which case it shall be reviewed under SAR-21 Subpart B – Changes to Type Certificate.

- 3.13.4.2 In cases where the type certificate holder needs to demonstrate compliance to the FAA for installation of the change on a Singapore registered aircraft, the CAAS may participate in the conformity and compliance demonstrations and request for the submission of associated reports (i.e. cabin interior inspection report). It is agreed that the type certificate holder may also demonstrate compliance against any specific CAAS certification requirements as part of the change.
- 3.13.5 Procedures for Changes to a CAAS-Validated FAA Supplemental Type Certificate
 - 3.13.5.1 The CAAS will usually accept FAA-approved design changes to FAA STCs for type accepted products without the need for further CAAS approval. Significant design changes that result in an amended STC may require approval under SAR-21, Subpart C.
- 3.13.6 Procedures for Changes to a Flight Manual.
 - 3.13.6.1 The FAA and the CAAS may request the review and signature of revisions to flight manuals, supplements and appendices, on behalf of each other, in order to facilitate their timely approval. The certifying authority will consult with the validating authority when it decides which revisions are major and which are minor. Sufficient detail must be provided such that the scope of the flight manual changes is well understood. Major revisions must be submitted to the validating authority for review and acceptance before any signature on behalf of the validating authority.
- 3.13.7 Procedures for Changes to Instructions for Continued Airworthiness (Certification Maintenance Requirements (CMRs), Special Compliance Items (SCIs), and Electrical Wiring Interconnection Systems (EWIS))
 - 3.13.7.1 The FAA and the CAAS may request the review and signature of revisions to manuals for instructions for continued airworthiness, such as AWLS, CMRs, SCIs, and EWIS, on behalf of each other, in order to facilitate their timely approval. The certifying authority will review minor revisions on behalf of the validating authority, and will ensure that the data meets the validating authority's requirements. Major revisions must be submitted to the validating authority for review and acceptance before any signature is made on behalf of the validating authority. For an individual certification project, the certifying authority will consult with the validating authority when it decides which revisions are major and which are minor.
- 3.13.8 Procedures for Changes to a U.S. TSO Appliance Accepted by the CAAS
 - 3.13.8.1 The CAAS will accept major changes to a U.S. TSO design in accordance with the procedures in paragraph 3.10. For minor changes, the CAAS will not require prior notification and will rely upon FAA determination of compliance.

3.13.9 Approval of Design Data Used In Support Of Repairs

- 3.13.9.1 Design data used in support of repairs must be approved or accepted, as appropriate, by the certificating authority in a manner that is acceptable to the validating authority. Design data approved by the certificating authority in accordance with the procedures set forth below is considered to be approved by the validating authority provided it meets the acceptability criteria of the validating authority.
- 3.13.9.2 The FAA and CAAS will accept approved design data from each other in accordance with the procedures as stated under 3.13.9.3 and 3.13.9.5 respectively.
- 3.13.9.3 FAA Acceptance of the Following CAAS-approved Design Data:
- (a) Without FAA further evaluation
 - (1) The FAA will accept the CAAS approved design data used in support of minor and major repairs for Singapore State of Designs (where products and articles are listed in Table 2). CAAS design data approval will be substantiated by approval from a CAAS Design Organisation Approval (DOA) holder (for minor only) or via a CAAS(AW)206, CAAS Repair Design Approval Application Form, where applicable. The FAA may request compliance documentation of the CAAS-approved design data, if needed, on a case-by-case basis.
 - (2) The FAA will accept the CAAS approved design data used in support of minor repair for cabin interior of United States State of Design where the CAAS had issued a letter of acceptance of type certificate. CAAS design data approval will be substantiated by approval from a CAAS Design Organisation Approval holder or via a CAAS(AW)206, CAAS Repair Design Approval Application Form. The FAA may request compliance documentation of the CAAS-approved design data, if needed, on a case-by-case basis.
 - (b) With FAA further evaluation
 - (1) The FAA will accept the CAAS approved design data used in support of major repairs for cabin interior of United States State of Design products and articles where the CAAS had issued a letter of acceptance of type certificate. CAAS design data approval will be substantiated via a CAAS(AW)206, CAAS Repair Design Approval Application Form. The FAA will evaluate these repairs and may request compliance documentation of the CAAS-approved design data, if needed, on a case-by-case basis.
- 3.13.9.4 A Singapore applicant may seek FAA approval through the CAAS with CAAS approved design data used in support of a major repair. The FAA may require compliance documentation of the CAAS-approved design data and evaluate such applications on a case-by-case basis.
- 3.13.9.5 CAAS Acceptance of the Following FAA-approved Design Data:

- (a) Without CAAS further evaluation
 - (1) FAA-approved design data issued by holders of the Letter of Acceptance of Type Certificate, CAAS validated Supplemental Type Certificate, FAA Technical Standard Order Authorization, Organization Designation Authorization, or Designated Engineering Representative used in support of major and minor repairs for all products and articles (including PMA parts) included in the scope of this agreement will be accepted by CAAS without the need for further approval at the time of import. For all major repairs, the FAA design data approval will be substantiated via an FAA Form 8110-3, 8100-9 or FAA Form 337 (block 3). The CAAS may request compliance documentation of the FAA-approved design data, if needed, on a case-by-case basis. For repairs made by the CAAS validated Supplemental Type Certificate holders, notification must be submitted to the CAAS within 3 months of approving the repair design.
- (b) With CAAS further evaluation
 - (1) For all other repairs from a U.S. design approval holder used in support of major and minor repairs for all products and articles (including PMA articles) included in the scope of this agreement, the originator of the repair data will need to seek the CAAS approval under SAR Part 21 Subpart F.

SECTION IV CONTINUED AIRWORTHINESS

4.1 General

- 4.1.1 The certificating authority is responsible as the State of Design (under Annex 8 of the Chicago Convention on International Civil Aviation done at Chicago on 7 December 1944 (Chicago Convention)) for resolving in-service safety issues related to design or production. The certificating authority will provide applicable information that it has found to be necessary for mandatory modifications, required limitations and/or inspections to the validating authority to ensure continued operational safety of the product or article. The validating authority will review and normally accept the corrective actions taken by the certificating authority in the issuance of its own mandatory corrective actions.
- 4.1.2 At the request of the validating authority, the certificating authority will assist the validating authority in determining what action is considered necessary by the validating authority for the continued operational safety of the product or article. The validating authority retains sole authority for decisions on final actions to be taken for products or articles under its jurisdiction.
- 4.1.3 The FAA and the CAAS recognize the importance of the routine sharing of Continued Operational Safety (COS) information as a means to assist in the identification and resolution of emerging airworthiness issues. The FAA and the CAAS will share their COS data with each other to assist in their respective COS oversight.
- 4.1.4 The validating authority may seek information, including access to design data, to understand and agree on findings of compliance made by the certificating authority to all requirements and on any mandatory corrective action or any significant on-going continued airworthiness topic and its means of resolution. This is necessary to ensure acceptable continued airworthiness of aircraft registered in the jurisdiction of the validating authority and engines, propellers, and appliances installed on any such aircraft.
- 4.1.5 The FAA and the CAAS will establish structured processes, including specific focal points, for regular feedback and communicating continued airworthiness issues on products or articles certified by either the FAA or the CAAS and validated by the other. The extent of these processes will be commensurate with the continued airworthiness activities associated with the product or article and will be handled outside of a validation project.

4.2 Malfunctions, Failures, and Defects (MF&D) and Service Difficulty Reports (SDR)

- 4.2.1 The FAA and the CAAS agree to perform the following functions for the products and articles for which it is the State of Design:
- 4.2.1.1 Tracking of MF&D reports/SDR and accident/incidents;
 - 4.2.1.2 Evaluating MF&D reports/SDR and accident/incidents;
 - 4.2.1.3 Investigating and resolving all suspected unsafe conditions;
 - 4.2.1.4 Advising the validating authority of all known unsafe conditions and the necessary corrective actions (see paragraph 4.3);
 - 4.2.1.5 Upon request, providing the validating authority with the following;

- (a) Reports of MF&D/SDR and accidents/incidents;
- (b) Status of investigations into MF&D/SDR and accidents/incidents;
- (c) Copies of final reports pertaining to the MF&D/SDR; and
- (d) Copies of final reports pertaining to the accidents/incidents in accordance with Annex 13 to the Chicago Convention.

4.2.1.6 Making a reasonable effort to resolve issues raised by the validating authority concerning matters of safety for products registered in the importing country.

4.2.2 The FAA and the CAAS, as validating authorities, agree to perform the following functions:

4.2.2.1 Advising the other authority of MF&D/SDR and accidents/incidents that are believed to be potentially unsafe conditions occurring on the products or articles that are imported from that country;

4.2.2.2 Supporting the certificating authority in investigations of unsafe conditions and their occurrences on the imported aircraft; and

4.2.2.3 Advising the certificating authority, if as a result of investigations made by the validating authority into MF&D/SDR and accidents/incidents, it has determined that it will make corrective actions mandatory.

4.2.3 Copies of U.S. and Republic of Singapore MF&D/SDR reports can be found at the addresses listed in Appendix A.

4.3 Unsafe Condition and Mandatory Continuing Airworthiness Actions

4.3.1 The FAA (under 14 CFR part 39) and the CAAS (under SAR-39), agree to perform the following functions for the products, articles and design changes for which it is the State of Design (certificating authority):

4.3.1.1 Issuing a mandatory continuing airworthiness action (Airworthiness Directive) whenever the authority determines that an unsafe condition exists in a type certificated product or article, and is likely to exist or develop on a type certificated product or article of the same type design. This may include a product that has an engine, propeller or article installed on it and the installation causes the unsafe condition. The contents of such a mandatory continuing airworthiness action should include, but are not limited to, the following:

- (a) Make, model, and serial numbers of affected aircraft, aircraft engines, propellers and articles;
- (b) Description of the unsafe condition, reasons for the mandatory action, and its impact on the overall aircraft, aircraft engine, or propeller and continued operation;
- (c) Description of the cause of the unsafe condition (e.g., stress corrosion, fatigue, design problem, quality control, unapproved part);

- (d) The means by which the unsafe condition was detected and, if resulting from in-service experience, the number of occurrences; and
 - (e) Corrective actions and corresponding compliance times, with a list of the relevant manufacturer's service information, including reference number, revision number and date.
- 4.3.1.2 Ensuring that the following information is provided to the other authority as part of the mandatory continuing airworthiness action or directly from the approval holder:
- (a) The number of aircraft world-wide (U.S. or Singapore registered) needing corrective action;
 - (b) A statement on the availability of articles; and
 - (c) An estimate of the number of labor hours and the cost of articles required for the corrective actions.
- 4.3.1.3 Issuing a revised or superseding mandatory continuing airworthiness action whenever the certificating authority finds any previously issued mandatory continuing airworthiness action was incomplete or inadequate to fully correct the unsafe condition.
- 4.3.1.4 Providing timely notification to the validating authority of the unsafe condition and the necessary corrective actions by submitting a copy of the mandatory continuing airworthiness action at the time of publication to the address referenced in Appendix A. Additionally, the certificating authority will arrange for copies of all relevant service bulletins referenced in the mandatory action, as well as other supporting documentation, to be forwarded to the appropriate focal point in the product-responsible FAA AIR Office or the CAAS Airworthiness Flight Operations Division, as appropriate.
- 4.3.1.5 In the case of emergency airworthiness information, the certificating authority should ensure special handling so that the validating authority is notified immediately.
- 4.3.1.6 Advising and assisting the validating authority in defining the appropriate actions for the validating authority to take in the issuance of its own mandatory continuing airworthiness action.
- 4.3.1.7 Providing sufficient information to the validating authority for its use in making determinations as to the acceptability of alternative means of compliance to mandatory continuing airworthiness actions.
- 4.3.1.8 Maintaining a web-based database of mandatory continuing airworthiness information that can be accessed by the State of Registry.
- 4.3.2 The FAA and the CAAS recognize that they may disagree as to the finding of an unsafe condition. In that case, it is expected that the validating authority will normally consult with the authority of the State of Design (certificating authority) prior to issuing its own Airworthiness Directive (AD).

- 4.3.3 The FAA and the CAAS, as validating authorities, agree to respond quickly to the issuance of a mandatory continuing airworthiness action by the certifying authority in making its own determination of the need for issuing its own similar mandatory continuing airworthiness action that addresses all unsafe conditions on affected products or articles certified, approved or otherwise accepted by the validating authority.
- 4.3.4 The FAA and the CAAS will share information on any changes that affect operating limitations, life limits, or any other airworthiness limitation, including manual changes and changes to certification maintenance requirements. These changes should be promptly sent to the validating authority in order to ensure the continued operational safety of the aircraft. The FAA and the CAAS will treat a reduced life limit as an unsafe condition and may accordingly issue an Airworthiness Directive (AD). The FAA and the CAAS may also issue an AD for other limitation changes if they are considered an unsafe condition.

SECTION V ADMINISTRATION OF DESIGN APPROVALS

5.1 General

This section addresses procedures for the transfer of TCs, and STCs, their surrender, revocation or suspension. It also describes procedures for the change of ownership, surrender or withdrawal of TSO approvals.

5.2 Transfer of TCs and STCs

The FAA and the CAAS will administer the transfer of TCs/STCs only where an applicant agrees to assume responsibility for an FAA TC/STC and the CAAS STC and the affected operating fleet.

5.2.1 Transfer of a U.S. TC to a Person located in the Republic of Singapore

[Reserved]

5.2.2 Transfer of a Republic of Singapore TC to a Person located in the U.S.

[Reserved]

5.2.3 Transfer of a U.S. Supplemental Type Certificate to a Person located in the Republic of Singapore.

5.2.3.1 The transfer of a U.S. STC to a person located in the Republic of Singapore will require the CAAS to implement the obligations of relevant standards contained in Annex 8 to the Chicago Convention, Airworthiness of Aircraft, for the aircraft concerned.

5.2.3.2 A U.S. STC will only be transferable to a holder of a Design Organisation Approval under SAR-21 Subpart H. The FAA may turn over to the CAAS the State of Design responsibilities for STCs, as identified in paragraph 2.2.1, for an aircraft type that has been type accepted by the CAAS and within the scope of Table 2. CAAS will not assume State of Design responsibilities for changes to aircraft that have not been found to meet the CAAS certification requirements.

5.2.3.3 Upon notification of a transfer by a U.S. STC holder to a person located in Singapore, the FAA AIR Office that issued the STC will notify the CAAS and establish procedures to enable the CAAS to assume the State of Design responsibilities for the STC. Each transfer will be accomplished on a case-by-case basis through the provisions of a special arrangement under Section V that identifies each authority's responsibilities in the transfer process.

5.2.3.4 If a corresponding Singapore STC already exists for the changed aircraft, the transfer will apply to the model listed on that Singapore STC.

5.2.3.5 If no corresponding Singapore STC exists, the transferee of the U.S. STC must apply for a Singapore STC, in accordance with paragraph 3.9. The FAA will provide support to establish acceptance of the U.S. STC as showing compliance with the applicable certification requirements of the CAAS.

- 5.2.3.6 The CAAS will be considered to have assumed the State of Design responsibilities for the U.S. STC when the CAAS confirms that all FAA/CAAS necessary data have been transferred to the new holder and the new holder is able to perform the responsibilities required of an STC holder.
- 5.2.3.7 The FAA will only reissue an STC in the name of the transferee after the CAAS has issued a Singapore STC when it is for an aircraft that is eligible for import into the United States. If the transferee does not wish to maintain FAA approval, the FAA will not reissue the STC.
- 5.2.3.8 If the CAAS has not carried out type acceptance of the aircraft being changed, or if the transferee does not hold and does not apply for a Singapore STC for the same design change, the FAA will continue to fulfill State of Design responsibilities for the STC provided that an undue burden is not placed on the FAA.
- 5.2.4 Transfer of Singapore Supplemental Type Certificate to a Person in the United States.
 - 5.2.4.1 The FAA will become responsible for complying with the requirements of ICAO Annex 8 to the Chicago Convention, Airworthiness of Aircraft, for affected products.
 - 5.2.4.2 The CAAS may turn over to the FAA the State of Design responsibilities for STCs, as identified in paragraph 2.3.1, for products that are eligible for import into the United States. The FAA will not assume State of Design responsibilities for changes that have not been found to meet the FAA certification requirements.
 - 5.2.4.3 Upon notification of a transfer by a Singapore STC holder to a person in the United States, the CAAS will notify the FAA AIR Office responsible for the new holder and establish procedures to enable the FAA to assume the State of Design responsibilities for the STC. Each transfer will be accomplished on a case-by-case basis through a special arrangement that identifies each authority's responsibilities in the transfer process.
 - 5.2.4.4 If a corresponding U.S. STC already exists for the changed product, the transfer will be applied to the model listed on that U.S. STC.
 - 5.2.4.5 If no corresponding U.S. STC exists, the transferee of the Singapore STC must apply for a U.S. STC, in accordance with paragraph 3.3. The CAAS will provide support to establish acceptance of the STC as showing compliance with the applicable certification requirements of the FAA.
 - 5.2.4.6 The FAA will be considered to have assumed the State of Design responsibilities for the Singapore STC when the FAA confirms that all CAAS/FAA necessary data have been transferred to the new holder and the new holder is able to perform the responsibilities required of an STC holder.
 - 5.2.4.7 CAAS will only reissue an STC in the name of the transferee after the FAA has issued a U.S. STC, unless the transferee does not wish to maintain the CAAS approval.

- 5.2.4.8 If the FAA has not issued the corresponding TC for the product being changed, or if the transferee does not hold and does not apply for a U.S. STC for the same design change, the CAAS will not turn over State of Design responsibilities for the applicable models to the FAA. CAAS will continue to fulfil State of Design responsibilities for the STC provided that an undue burden is not placed on the CAAS.

5.3 Transfer of TCs and STCs within the U.S. or the Republic of Singapore

5.3.1 Transfer of a U.S. TC/STC within the Republic of Singapore

- 5.3.1.1 CAAS will notify the FAA when a CAAS STC validated by the FAA will be transferred from one person in the Republic of Singapore to another person within the Republic of Singapore.
- 5.3.1.2 The FAA will transfer its STC only when the FAA has been satisfied that the transferee is able to undertake the responsibilities in part 21 and after the CAAS STC has been transferred.
- 5.3.1.3 The FAA will reissue an STC in the name of the new holder after the Republic of Singapore STC issuance.
- 5.3.1.4 The U.S. will not transfer a U.S. TC within the Republic of Singapore since the U.S. does not issue U.S. TCs to persons in the Republic of Singapore.

5.3.2 Transfer of a Republic of Singapore STC within the U.S.

- 5.3.2.1 The FAA will notify the CAAS when a transfer of an FAA STC validated by the CAAS is transferred from one person in the U.S. to another person in the U.S.
- 5.3.2.2 The CAAS will transfer the STC only when the CAAS has been satisfied that the transferee is able to undertake the responsibilities in SAR Part 21 and after the FAA STC has been transferred.
- 5.3.2.3 The CAAS will reissue an STC in the name of the new holder after the FAA STC issuance.
- 5.3.2.4 The CAAS will not transfer a CAAS TC within the U.S. since the Republic of Singapore is not a State of Design for products and does not issue TCs.

5.4 Surrender of Type Certificate or Supplemental Type Certificate

- 5.4.1 If a certificate holder elects to surrender a TC or STC issued by either the FAA or the CAAS, the authority of the State of Design will immediately notify the other in writing of the action. For the CAAS, notification will be to the FAA's AIR Office as listed in Appendix A. For the FAA, notification will be to the CAAS Airworthiness/Flight Operations Division at the address given in Appendix A. The FAA or the CAAS, as State of Design, will accomplish all actions necessary to ensure continued airworthiness of the product until such time as:

- 5.4.1.1 The TC or STC is transferred/reissued to a new holder when that new holder demonstrates competence to fulfill the necessary obligations;
or

- 5.4.1.2 The FAA or the CAAS terminates the TC or STC. Prior to termination, the FAA or the CAAS will notify the other of the pending cancellation.

5.5 Revocation or Suspension of Type Certificate or Supplemental Type Certificate

5.5.1 In the event the FAA revokes or suspends a TC or STC of a product for which the FAA is the authority of the State of Design, the responsible FAA AIR Office shall immediately inform the CAAS. CAAS, upon notification, will conduct an investigation to determine if action is required in Singapore. If the revocation or suspension was "for cause" and the CAAS concurs with the FAA's certificate action, the CAAS may initiate revocation or suspension of the CAAS Letter of Acceptance of Type Certificate or STC. CAAS may decide to continue to support its State of Registry responsibilities if there is sufficient information for it to support the continued operational safety of the fleet in Singapore. The FAA will retain responsibility for assisting the CAAS with design-related issues concerning the continued operational safety of any affected aircraft. Final certificate action is at the sole discretion of the CAAS.

5.5.2 In the event the CAAS revokes or suspends an STC of a design change for which the CAAS is the authority of the State of Design, the CAAS shall immediately inform the responsible FAA AIR Office. The FAA, upon notification, will conduct an investigation to determine if action is required in the United States. If the revocation or suspension was "for cause" and FAA concurs with the CAAS' certificate action, FAA may initiate revocation or suspension of the FAA STC. FAA may decide to continue to support its State of Registry responsibilities if there is sufficient information for it to support the continued operational safety of the fleet in the United States. CAAS will retain responsibility for assisting the FAA with design-related issues concerning the continued operational safety of any affected aircraft. Final certificate action is at the sole discretion of the FAA.

5.6 Surrender or Withdrawal of a TSO Design Approval/Certificate of Approval

5.6.1 Surrender

If an FAA TSOA or Letter of Design Approval Holder, or a CAAS TSO Certificate of Approval holder, elects to surrender the TSO approval or the CAAS TSO Certificate of Approval issued by the FAA or the CAAS respectively, as exporting authorities, the FAA or the CAAS will immediately notify the other in writing of the action. The certificating authority will accomplish all actions necessary to ensure continued airworthiness of the article, until such time as the TSO approval is formally withdrawn by the certificating authority.

5.6.2 Withdrawal

If a TSO approval is withdrawn, the FAA or the CAAS, as certificating authorities, will immediately notify the other in writing of the action. The certificating authority will accomplish all actions necessary to ensure continued airworthiness of the appliance produced under its TSO approval. In the event of withdrawal of a TSO approval the certificating authority will investigate all non-compliances and non-conformities for corrective action and notify the validating authority of the corrective action. The certificating authority still has the responsibility for the continued airworthiness of those TSO articles manufactured under its authority.

SECTION VI PRODUCTION AND SURVEILLANCE ACTIVITIES

6.1 Production Quality System

6.1.1 All products and articles exported to the U.S. or the Republic of Singapore under the provisions of these Implementation Procedures will be produced in accordance with a production quality system that ensures conformity to the approved design of the validating authority and ensures that completed products and articles are in a condition for safe operation. This production quality system covers the manufacture of products and articles within and outside of the state of export. When these production activities occur outside of the state of export, the associated products or articles will be considered as being manufactured in the exporting state.

6.2 Surveillance of Production Approval Holders

6.2.1 The FAA and the CAAS, as exporting authorities, will conduct regulatory surveillance of production approval holders and their suppliers in accordance with the certificating authority's specific policies, practices, and/or procedures. Both ongoing and scheduled evaluations should be conducted to verify that the production approval holder is in continual compliance with its approved production quality system, manufacturing products and articles that fully conform to the approved design, and are in a condition for safe operation. The certificating authority should verify the correction of all deficiencies.

6.2.2 Production surveillance includes the surveillance of manufacturers and their suppliers who may be producing prototype or pre-production articles for products that are still undergoing type certification. The manufacturer or its approved supplier must produce these articles, with the concurrence of the certificating authority, using an existing approved production quality system for similar type certificated products. The approved production quality system must ensure the prototype articles are properly controlled so that a final determination of airworthiness can be undertaken prior to their export.

6.2.3 Production approval holder and supplier surveillance programs by the FAA are described in FAA Order 8120.23, *Certificate Management of Production Approval Holders*.

6.2.4 CAAS's production approval holder and supplier surveillance programs are described in SAR-21 Subsection III, Production Approval and SAR-21, Subsection IV, Approval and Certificate Management.

6.3 Extensions of Production Approvals

6.3.1 When a production approval has been granted or extended by the FAA or the CAAS, as exporting authorities, to include manufacturing sites and facilities in each other's countries or in a third state, the certificating authority remains fully responsible for the surveillance and oversight of these manufacturing sites and facilities.

6.3.2 The FAA is responsible for surveillance and oversight of U.S. production approval holders located in the Republic of Singapore. Routine surveillance and oversight may be performed by the CAAS on behalf of the FAA through the provisions of Section VIII of these Implementation Procedures. CAAS is responsible for surveillance and oversight of the CAAS production approval

holders located in the U.S. Routine surveillance and oversight may be performed by the FAA on behalf of the CAAS through the provisions of Section VIII of these Implementation Procedures.

- 6.3.3 The FAA or the CAAS may seek assistance from the civil aviation authority of a third state in the undertaking of the FAA or the CAAS regulatory surveillance and oversight functions when a production approval has been granted or extended in that third state. This may be done only when an arrangement for technical assistance has been formalized between the FAA or the CAAS and the civil aviation authority of the third state.

6.4 Production Approvals Based on Licensing Agreement

- 6.4.1 The FAA and the CAAS recognize that some business relationships may result in the licensing of data for products or articles designed under one authority's approval and manufactured under the other authority's approval. In such cases, the FAA and the CAAS will work together to develop an agreement acceptable to both the FAA and the CAAS defining their regulatory responsibilities to ensure accountability under Annex 8 to the Chicago Convention. Such agreements will address the continued airworthiness responsibilities of the State of Design and the State of Manufacture and will be documented in accordance with Section IX.

- 6.4.2 For products, either the FAA or the CAAS can grant a production approval in its respective country based on design data obtained through a licensing agreement (i.e., licensing the rights to use the design data) with the design approval holder in the other country. In this case, the authority granting that production approval will ensure the establishment of adequate manufacturing processes and quality control procedures to ensure that each product conforms to the approved licensed design data. There must also be procedures to ensure that all changes to be introduced into the design by the production approval holder are approved. These design changes will be submitted to the type design holder who will obtain approval from its authority using established procedures. These production approvals based on a licensing agreement will be addressed on a case-by-case basis under the provision of Section IX.

- 6.4.3 For articles, either the FAA or the CAAS may grant a production approval in its respective country based on design data obtained through a licensing agreement (i.e., licensing the rights to use the design data) with the design approval holder in the other country. In this case, the authority granting production approval must have validated the TC or STC and will ensure the establishment of adequate manufacturing processes and quality control procedures to ensure that each part conforms to the approved licensed design data. There must also be procedures to ensure that all changes to be introduced into the design by the production approval holder are approved. These design changes will be submitted to the design approval holder, who will obtain approval from its authority using normal procedures.

6.5 Supplier Surveillance – Outside the Exporting Country

- 6.5.1 The authority for the State of Manufacture will include in its regulatory surveillance and oversight programs a means of surveilling persons/suppliers, located outside the exporting country. This surveillance and oversight will be equivalent to the program for domestic suppliers. This surveillance activity will

assist the authorities in determining conformity to an approved design and if articles are safe for installation on type certificated products.

- 6.5.2 The FAA is responsible for surveillance and oversight of U.S. production approval holders' suppliers located in the Republic of Singapore. Routine surveillance and oversight may be performed by the CAAS on behalf of the FAA through the provisions of Section VIII of these Implementation Procedures. The CAAS is responsible for surveillance and oversight of the CAAS production approval holders' suppliers located in the U.S. Routine surveillance and oversight may be performed by the FAA on behalf of the CAAS through the provisions of Section VIII of these Implementation Procedures.
- 6.5.3 The FAA or the CAAS may seek assistance from the authority of a third State at the supplier's location in the undertaking of FAA or the CAAS regulatory surveillance and oversight functions at suppliers to production approval holders of the exporting state. This may only be done when an agreement for technical assistance has been formalized between the FAA or the CAAS and the civil aviation authority of the third state.
- 6.5.4 The production approval holder may not use a supplier in a State where the authority of the production approval holder is denied unimpeded access, by either the supplier or the supplier's civil aviation authority, to the supplier's facility to perform surveillance activities. The production approval holder also may not use a supplier located in a State if that State denies entry to the authority of the production approval holder.

6.6 Multi-National Consortia

- 6.6.1 Within limits of the scope of these Implementation Procedures, approvals may be issued to multi-national consortia for the design and production of products and/or articles in either the U.S. or the Republic of Singapore. These consortia clearly define one State of Design and one State of Manufacture for the purposes of regulatory accountability. There may be domestic and international suppliers to the approval holder(s) that produce articles for use in the final product to be exported.
- 6.6.2 The FAA and the CAAS will continue to conduct regulatory surveillance and oversight of the domestic design and production approval holder(s) and should emphasize surveillance and oversight of critical suppliers. Each authority will use its regulatory surveillance and oversight programs that best enable it to ensure the consortium suppliers are producing articles that conform to the approved design and are in a condition for safe operation.

SECTION VII EXPORT AIRWORTHINESS APPROVAL PROCEDURES

7.1 General

7.1.1 Export Certificates of Airworthiness are issued by the FAA for completed aircraft. Authorized Release Certificates (airworthiness approval tags) are issued by the aircraft engine-, propeller-, and article-approved manufacturers.

7.2 FAA Acceptance of the CAAS Export Certificates of Airworthiness and Authorized Release Certificates

7.2.1 The FAA's requirements and procedures for import are described in 14 CFR part 21, FAA Order 8130.2, Airworthiness Certification of Aircraft and Related Products, and AC 21-23, Airworthiness Certification of Civil Aircraft, Engines, Propellers, and Related Products Imported to the United States.

7.2.2 The CAAS's process for issuing export certificates are described in SAR Chapters 2.4, *Export Certificate of Airworthiness*, SAR-21 Appendix 1, *Authorized Release Certificate Form CAAS(AW)95*, and AFOP Volume 4, Section 9, Chapter 23, Export Certificate of Airworthiness.

7.2.3 New Aircraft Exported to the U.S. for which an FAA Design Approval has been granted

[Reserved]

7.2.4 Used Aircraft Exported to the U.S. for which an FAA Design Approval has been granted

7.2.4.1 Acceptance of Used Aircraft of Republic of Singapore State of Design

[Reserved]

7.2.4.2 Acceptance of Used U.S. Aircraft Exported (Returned) to the U.S. when the U.S. is the State of Design

(a) The FAA will accept the CAAS Export Certificates of Airworthiness for used aircraft exported (returned) to the U.S., when the U.S. is the State of Design and the aircraft conforms to the type design approved by the FAA, as specified in the FAA's TCDS, and any additional STCs approved by the FAA, as notified to the CAAS.

(b) If the CAAS is not in a position to assess whether or not the used aircraft satisfies the above conditions, the CAAS will inform the FAA accordingly.

7.2.4.3 Acceptance of Used Aircraft for which a Third Country is the State of Design.

(a) The FAA will accept the CAAS Export Certificates of Airworthiness for used aircraft manufactured in a third country when that third country has a bilateral agreement/arrangement with the U.S. covering the same

class of product, and the following conditions pertaining to the used aircraft have been met:

- (1) Conforms to the type design approved by the FAA, as specified in the FAA's TCDS, and any additional STCs approved by the FAA, as notified to the CAAS;
 - (2) Is in a condition for safe operation, including compliance with all applicable FAAADs, as notified;
 - (3) Is marked in accordance with paragraph 7.3;
 - (4) Is properly maintained using approved procedures and methods (evidenced by logbooks and maintenance records); and
 - (5) Meets all additional requirements prescribed by the FAA, as notified by the FAA.
- (b) If the CAAS is not in a position to assess whether or not the used aircraft satisfies the above conditions, it will inform the FAA accordingly.

7.2.4.4 New Aircraft Engines and Propellers Exported to the U.S.

[Reserved]

7.2.5 New TSO Articles Exported to the U.S.

7.2.5.1 The FAA will accept the CAAS Authorized Release Certificates on new TSO articles, as identified in Section II of these Implementation Procedures, only when the CAAS certifies, by the issuance of a Form CAAS(AW)95, that each TSO article:

- (a) Conforms to the design approved by the FAA, as specified in the FAA Letter of TSO Design Approval;
- (b) Complies with applicable FAAADs, as notified;
- (c) Is marked in accordance with paragraph 7.3 of these Implementation Procedures; and
- (d) Meets all additional requirements prescribed by the FAA, as notified by FAA.

7.2.6 New Modification and Replacement Articles Exported to the U.S.

7.2.6.1 Each new part exported to the U.S. with a CAAS Authorized Release Certificate will have a Form CAAS(AW)95. The FAA will accept these CAAS-authorized release certificates on new modification and/or replacement articles as identified in 2.3.5.1(b) only when the CAAS certifies, by issuance of a CAAS(AW)95, that each part:

- (a) Is eligible for installation in a product or article identified in Section II that has been granted an FAA design approval;
- (b) Conforms to the approved design;
- (c) Is marked in accordance with paragraph 7.3 of these Implementation Procedures; and

- (d) Meets all additional requirements prescribed by the FAA, as notified by the FAA.

7.2.6.2 When articles are shipped under direct ship authorizations extended to approved suppliers, the accompanying CAAS(AW)95 must indicate that the production approval holder has authorized direct shipment. This indication may be a supplemental "remark" entry on CAAS(AW)95 indicating the authorization to the supplier for direct shipment of articles from the supplier's location.

7.2.6.3 FAA acceptance of CAAS PMA articles
[Reserved]

7.2.7 Standard Parts Exported to the U.S.

The FAA will accept Standard Parts for all products and articles covered under these Implementation Procedures when they conform to established U.S. or Singapore industry or government specifications, or to a Singapore Technical Standard Order (STSO).

7.2.8 Coordination of Exceptions on an Export Certificate of Airworthiness

The CAAS will notify the FAA prior to issuing an Export Certificate of Airworthiness if a non-compliance to FAA approved type design is to be noted under the "Exceptions" section of the Export Certificate of Airworthiness. This notification should help to resolve all issues concerning the aircraft's eligibility for an airworthiness certificate. This notification should be sent the responsible FAA Flight Standards District Office (FSDO) available online at www.faa.gov. In all cases, a written acceptance from the FAA is required before the issuance of the Export Certificate of Airworthiness. A copy of this written acceptance will be included with the export documentation.

7.2.9 Coordination of Exceptions on an Authorized Release Certificate

CAAS will notify the FAA's responsible Manufacturing Office prior to the issuance of an Authorized Release Certificate, form CAAS(AW)95, for a TSO article or part in which a non-compliance to the CAAS-approved design is to be noted in the "Remarks" block of the CAAS(AW)95. This notification should help resolve all issues regarding the article or part's installation eligibility. This notification should be sent to the responsible Manufacturing Inspection Office (MIO Branch). Address for responsible FAA MIO is listed in Appendix A. In all cases, a written acceptance from the FAA is required before the issuance of a CAAS(AW)95. A copy of this written acceptance will be included with the export documentation.

7.3 Additional U.S. Requirements for Imported Products and Articles

The following identifies those additional requirements that must be complied with as a condition of acceptance for products and articles imported into the U.S., or for use on a U.S. registered aircraft.

7.3.1 Identification and Marking

7.3.1.1 Aircraft must be identified as required in 14 CFR 45.11.

- 7.3.1.2 Aircraft engines and propellers must be identified as required in § 45.11.
- 7.3.1.3 Each critical component of a product must be identified with a part number (or equivalent) and serial number (or equivalent) in accordance with § 45.15.
- 7.3.1.4 Each article of a design approved by an FAA Letter of TSO Design Approval must be marked in accordance with the requirements in § 45.15, and all additional marking requirements specified in the particular TSO.
- 7.3.1.5 Each replacement or modification article must be marked with the part number, serial number if applicable, and a manufacturer's name, trademark, or symbol. Information related to the manufacturer's name of the type certificated product on which the article is eligible for installation must be provided. If the article is too small or it is otherwise impractical to mark an article with this information, a tag attached to the article, or a readily available manual or catalogue, may contain this information. Refer to § 45.15 for appropriate requirements.

7.3.2 Instructions for Continued Airworthiness

Instructions for continued airworthiness must be provided by the certificate holder as prescribed in 14 CFR 21.50. In the event that the TSO appliance does not require any specific instructions for continuing airworthiness, the CAAS will obtain a written statement from the applicant that specifies that no instructions for continuing airworthiness are required.

7.3.3 Aircraft Flight Manual, Operating Placards and Markings, Weight and Balance Report, and Equipment List

Each aircraft must be accompanied by an approved Aircraft Flight Manual (AFM), including all applicable supplements. The aircraft must also have the appropriate operating placards and markings, a current weight and balance report, and a list of installed equipment.

7.3.4 Maintenance Records

Each article must be accompanied by maintenance records equivalent to those specified in 14 CFR 91.417.

7.4 CAAS Acceptance of FAA Export Certificates of Airworthiness and Authorized Release Certificates

7.4.1 CAAS' requirements and procedures for import are described in SAR Section 2: Aircraft Airworthiness.

7.4.2 The FAA's process for issuing export certificates is described in 14 CFR Part 21 and FAA Order 8130.2, Aircraft Certification of Aircraft and Related Parts, FAA Order 8130.21, Procedures for Completion and Use of FAA Form 8130-3, Airworthiness Approval Tag, and FAA AC 21-2, Export Airworthiness Approval Procedures.

7.4.3 New Aircraft Exported to the CAAS

7.4.3.1 Except as provided in paragraph 7.4.9, the CAAS will accept FAA Export Certificates of Airworthiness (FAA Form 8130-4) on new aircraft identified in paragraph 2.2.3.1 only when the FAA certifies that each aircraft:

- (a) Conforms to a type design accepted by the CAAS, in accordance with SAR-21, Subpart A, and any additional STCs accepted by the CAAS, as notified to the FAA;
- (b) Is in a condition for safe operation, including compliance with applicable FAA and the CAAS ADs, as notified;
- (c) Is marked in accordance with paragraph 7.5 of these Implementation Procedures;
- (d) Has undergone final operational check (only for aircraft engines and propellers); and
- (e) Meets all additional requirements prescribed and notified by the CAAS.

7.4.3.2 Each aircraft exported to the Republic of Singapore with FAA airworthiness approval will have an Export Certificate of Airworthiness and should contain information equivalent to the following statement: "The [INSERT AIRCRAFT MODEL] covered by this certificate conforms to the type design approved under [Country Name] Type Certificate Number [INSERT TYPE CERTIFICATE NUMBER, REVISION LEVEL, AND DATE], and is found to be in a condition for safe operation".

7.4.4 Used Aircraft Exported to the Republic of Singapore for which a CAAS Design Approval Has Been Granted

7.4.4.1 Acceptance of Used Aircraft of U.S. State of Design

- (a) The CAAS will accept FAA's Export Certificates of Airworthiness on used aircraft from the U.S., as identified in paragraph 2.2.3.1(a) for which the U.S. is the State of Design, for import into the Republic of Singapore, only if a TC holder exists to support continued airworthiness of such aircraft and the FAA certifies that each used aircraft:
 - (1) Conforms to a type design accepted by the CAAS, in accordance with SAR-21, Subpart A, and any additional STCs accepted by the CAAS, as notified to the FAA;
 - (2) Is in a condition for safe operation, including compliance with all applicable FAA and the CAAS ADs, as notified;
 - (3) Is marked in accordance with paragraph 7.5 of these Implementation Procedures;
 - (4) Is properly maintained using approved procedures

and methods (evidenced by logbooks and maintenance records); and

- (5) Meets all additional requirements prescribed and notified by the CAAS.
- (b) The CAAS will also require the inspection and maintenance records that include, but are not limited to:
 - (1) The original or certified true copy of the Export Certificate of Airworthiness issued by the civil aviation authority of the country of manufacture;
 - (2) Records that ensure that all overhauls, major changes, and major repairs were accomplished in accordance with approved data; and
 - (3) Maintenance records and log entries that substantiate that the used aircraft has been properly maintained throughout its service life to the requirements of an approved maintenance program.
 - (c) When a used aircraft produced in the U.S. is to be imported into the Republic of Singapore from a third country the FAA will, upon request, assist the CAAS in obtaining information regarding the configuration of the aircraft at the time it left the manufacturer. The FAA will also provide, upon request, information regarding subsequent installations on the aircraft that have been approved by the FAA.
 - (d) If a used civil aircraft produced in the U.S. has been used in military service at any time, the FAA will consult with the CAAS to determine if the CAAS will accept such an aircraft.

7.4.4.2 Acceptance of Used Republic of Singapore Aircraft Being Exported (Returned) to the Republic of Singapore when the Republic of Singapore is the State of Design

[Reserved]

7.4.4.3 Acceptance of Used Aircraft for which a Third Country is the State of Design when the aircraft type certificate has been accepted by the CAAS.

- (a) The CAAS will accept the FAA Export Certificate of Airworthiness for used aircraft for which a third country is the State of Design, when that third country has a bilateral agreement/arrangement with U.S. covering the same class of product, and the conditions of paragraph 7.4.4.1(a) and (b) have been met.
- (b) If the FAA is not in a position to assess whether or not the used aircraft satisfies the above conditions, it will inform the CAAS accordingly.

7.4.5 New Propellers and New, Used, Rebuilt, or Overhauled Engines Exported to the Republic of Singapore

7.4.5.1 CAAS will accept FAA Authorized Release Certificates on new propellers and engines, as identified in Section 2 of these Implementation Procedures, only when the FAA certifies that each aircraft propeller or engine:

- (a) Conforms to a type design accepted by the CAAS and any additional STCs accepted by the CAAS;
- (b) Is in a condition for safe operation, including compliance with applicable FAA and the CAAS ADs, as notified;
- (c) Is marked in accordance with paragraph 7.5 of these Implementation Procedures;
- (d) Has undergone a final operational check (only for aircraft engines and propellers); and
- (e) Meets all additional requirements prescribed by the CAAS;

7.4.5.2 For used, rebuilt and overhauled engines, in addition to the requirements stated under 7.4.5.1, the engine will be issued with a CAAS AW95 by the CAAS approved entity, after successfully undergoing the inspections required by the CAAS.

7.4.5.3 Each aircraft engine or propeller exported to the Republic of Singapore with FAA airworthiness approval will have an Authorized Release Certificate. The Authorized Release Certificate should contain information equivalent to the following statement: "The [INSERT ENGINE OR PROPELLER] covered by this certificate conforms to the type design approved under [Country Name] Type Certificate Number [INSERT TYPE CERTIFICATE NUMBER, REVISION LEVEL, AND DATE], is found to be in a condition for safe operation and has undergone a final operational check".

7.4.6 New TSO Articles Exported to the Republic of Singapore

7.4.6.1 The CAAS will accept an FAA Airworthiness Approval or Authorized Release Certificate issued by the PAH on new TSO articles, as identified in Section II, only when the FAA or PAH certifies, by the issuance of an FAA Form 8130-3, that each TSO article:

- (a) Conforms to the design approved by FAA, as specified in the Certificate of Approval;
- (b) Complies with applicable U.S. ADs;
- (c) Is marked in accordance with paragraph 7.5 of these Implementation Procedures; and
- (d) Meets all additional requirements prescribed and notified by the CAAS.

7.4.7 New Modification, and/or Replacement Articles Exported to the Republic of Singapore

7.4.7.1 Each article exported to the Republic of Singapore with an FAA issued airworthiness approval or Authorized Release Certificate issued by the PAH will have an FAA Form 8130-3. The CAAS will accept an FAA Form 8130-3 on new modification and/or replacement articles, as identified in paragraph 2.2.4.2(b), when the FAA or PAH certifies, by issuance of an FAA Form 8130-3, that each article:

- (a) Conforms to FAA-approved design data;
- (b) Complies with applicable U.S. ADs;
- (c) Is marked in accordance with paragraph 7.5 of these Implementation Procedures;
- (d) Is in a condition for safe operation; and
- (e) Meets all additional requirements prescribed and notified by the CAAS.

7.4.7.2 When articles are shipped under direct ship authorizations extended to approved suppliers, the accompanying FAA Form 8130-3 must indicate that the production approval holder has authorized direct shipment. This indication may be a supplemental "remark" entry on the FAA Form 8130-3 indicating the authorization to the supplier for direct shipment of articles from the supplier's location.

7.4.8 Standard Parts Exported to the Republic of Singapore

The CAAS will accept new standard parts (reference paragraph 2.2.6) exported from the U.S. when accompanied with an FAA Form 8130-3, if the standard part is eligible for an FAA Form 8130-3. All other new standard parts will be accepted when accompanied by a manufacturer's Certificate of Conformity verifying the part's conformance to an established Republic of Singapore or U.S. industry or government specification.

7.4.9 Coordination of Exceptions on an Export Certificate of Airworthiness

The FAA will notify the CAAS prior to issuing an Export Certificate of Airworthiness in which a non-compliance to FAA approved type design is to be noted under the "Exceptions" section of the Export Certificate of Airworthiness. This notification should help to resolve all issues concerning the aircraft's eligibility for an airworthiness certificate. This notification should be sent to the CAAS Airworthiness/Flight Operations Division. The address for the CAAS Airworthiness/Flight Operations Division is listed in Appendix A. In all cases, a written acceptance from the CAAS is required before the issuance of the FAA Export Certificate of Airworthiness. A copy of this written acceptance will be included with the export documentation.

7.4.10 Coordination of Exceptions on an Authorized Release Certificate

The FAA will notify the CAAS prior to the issuance of an Authorized Release Certificate, FAA Form 8130-3 for an engine, propeller, TSO article or part in

which a non-compliance to the FAA-approved design is to be noted in the "Remarks" block of the FAA Form 8130-3. This notification should help resolve all issues regarding the engine, propeller, article, or part's installation eligibility. This notification should be sent to the CAAS. The address for the CAAS is listed in Appendix A. In all cases, a written acceptance from the CAAS is required before the issuance of an FAA Form 8130-3. A copy of this written acceptance will be included with the export documentation.

7.5 Additional Republic of Singapore Requirements for Imported Products

The following identifies those additional requirements that must be complied with as a condition of acceptance for products and articles imported into the Republic of Singapore, or for use on a Republic of Singapore registered aircraft.

7.5.1 Identification and Marking

- 7.5.1.1 Aircraft must be identified as required in the Air Navigation Order (ANO) paragraph 5. The CAAS will accept aircraft engines and propellers identified in accordance with § 45.11.
- 7.5.1.2 Each critical component of a product must be identified with a part number (or equivalent) and serial number (or equivalent).
- 7.5.1.3 Each article approved by a STSO Certificate of Approval must be marked in accordance with the requirements in SAR-21, Subpart E, and all additional marking requirements specified in the particular TSO.
- 7.5.1.4 Each replacement or modification part must be marked with the part number, serial number, if applicable, and the manufacturer's name, trademark, or symbol. Information related to the manufacturer's name and model designation of the type certificated product on which the part is eligible for installation must be provided. If the part is too small or it is otherwise impractical to mark a part with this information, a tag attached to the part, or a readily available manual or catalogue, may contain this information.

7.5.2 Instructions for Continued Airworthiness

Each aircraft, aircraft engine, and propeller must be accompanied by instructions for continued airworthiness as prescribed in the airworthiness standards under which the product was type certificated.

7.5.3 Maintenance Records

Maintenance records equivalent to those specified in Air Navigation Order must accompany each aircraft, including the aircraft engine, propeller, rotor, or article.

SECTION VIII TECHNICAL ASSISTANCE BETWEEN AUTHORITIES

8.1 General

- 8.1.1 Upon request and after mutual agreement, and as resources permit, the FAA and the CAAS will provide technical assistance to each other when significant activities are conducted in either the U.S. or the Republic of Singapore.
- 8.1.2 Every effort should be made to have these certification tasks performed locally on each other's behalf. These technical assistance activities will help with regulatory surveillance and oversight functions at locations outside of the requesting authority's country. These supporting technical assistance activities do not relieve the authority of the responsibilities for regulatory control, environmental certification, and airworthiness approval of products and articles manufactured at facilities located outside of the requesting authority's country.
- 8.1.3 The FAA and the CAAS will use their own policies and procedures when providing such technical assistance to the other, unless other special arrangements are agreed upon. Types of assistance may include, but are not limited to, the following:
- 8.1.3.1 Certification Support
 - (a) Witnessing tests;
 - (b) Performing compliance inspections;
 - (c) Reviewing reports;
 - (d) Obtaining data;
 - (e) Verifying/determining compliance;
 - (f) Monitoring the activities and functions of designees or approved organizations; and
 - (g) Conducting investigations of service difficulties.
 - 8.1.3.2 Production and Surveillance Support
 - (a) Conformity inspections;
 - (b) Monitoring the controls of special processes;
 - (c) Witnessing the first article inspection of articles;
 - (d) Conducting sample inspections on production articles;
 - (e) Monitoring the activities and functions of designees or approved organizations;
 - (f) Conducting investigations of service difficulties; and
 - (g) Evaluating or conducting surveillance of production quality systems.
 - 8.1.3.3 Airworthiness Certification Support
 - (a) Monitoring the activities and functions of designees or approved organizations; and

(b) Determining the original export configuration of a used aircraft.

8.1.3.4 Continued Airworthiness Support

Conducting investigations of service difficulties.

8.1.3.5 Technical Training

Any additional assistance needed to support the technical implementation of this agreement.

8.2 Witnessing of Tests during Design Approval

8.2.1 The FAA and the CAAS may request assistance in the witnessing of tests from the other airworthiness authority.

8.2.2 Only authority-to-authority requests are permissible and neither the FAA nor the CAAS will respond to a test witnessing request made directly from the manufacturer or supplier. Witnessing of tests will be conducted only after consultations and agreement between the FAA and the CAAS on the specific work to be performed. A written request for witnessing of tests will be provided.

8.2.3 Unless otherwise delegated, approval of the design approval applicant's test plans, test procedures, test specimens, and hardware configuration remains the responsibility of the airworthiness authority of the country in which the design approval applicant is located. Establishing the conformity of each test article prior to the conduct of the test is the responsibility of the design approval applicant.

8.2.4 Test witnessing activities may require the development of a working arrangement based on the complexity and frequency of the requested certifications. At the discretion of the authority receiving such requests, these activities may be delegated to authorized designees or approved organizations.

8.2.5 Where there is no working arrangement, requests for witnessing of individual tests must be specific enough to provide for identification of the location, timing, and nature of the test to be witnessed. An approved test plan must be provided by the FAA or the CAAS, as appropriate, at least two weeks prior to each scheduled test.

8.2.6 CAAS requests for witnessing of tests should be sent in writing to the appropriate FAA Aircraft Certification Office. For tests associated with a current CAAS validation of an FAA design approval, the requests should be sent to the FAA Aircraft Certification Office responsible for the U.S. applicant. For tests associated with a Republic of Singapore certification program only, the requests should be sent to the FAA AIR International Division. FAA Offices are listed in Appendix A. The FAA requests for witnessing of tests will be sent in writing to the CAAS Airworthiness/Flight Operations Division at the address listed in Appendix A.

8.2.7 Upon completion of test witnessing on behalf of the requesting authority, the FAA or the CAAS will send a report stating that the test was conducted in accordance with approved test plans and confirming the test results, as well as any other documentation as notified by the requesting authority.

8.3 Compliance Determinations

- 8.3.1 The FAA or the CAAS may also request that specific compliance determinations be made after the witnessing of tests or other activities. Such statements of compliance will be made to the airworthiness or environmental standards of the requesting authority.
- 8.3.2 The FAA's or the CAAS's statements of compliance will be sent in an electronically transmitted formal letter to the requesting FAA AIR Office or the CAAS Airworthiness/Flight Operations Division.

8.4 Conformity Certifications during Design Approvals

- 8.4.1 The civil aviation authority of the State in which a design approval applicant is located may request conformity certifications from the civil aviation authority in the State in which the design approval applicant's prototype part supplier is located.
- 8.4.2 Only authority-to-authority requests are permissible, and authorities will not respond to a conformity certification request from the manufacturer or supplier. Certifications will be conducted only after the civil aviation authority consults on the specific work to be performed and agreement has been obtained from the civil aviation authority in the state in which the supplier is located. Requests for conformity certifications should be limited to prototype articles that are of such complexity that they cannot be inspected by the manufacturer or its civil aviation authority prior to installation in the final product. Conformity certifications may require the development of a working procedure based on the complexity of the requested certifications. At the discretion of the authority in receipt of such requests, conformity certifications may be delegated to authorized designees or delegated organizations.
- 8.4.3 CAAS requests for conformity certifications will be sent to the FAA AIR Office responsible for Manufacturing Inspection oversight. FAA Offices are listed in Appendix A. CAAS requests will be submitted via a letter. FAA requests for conformity certifications will be sent on a completed FAA Form 8120-10, *Request for Conformity*, to the CAAS Airworthiness/Flight Operations Division address listed in Appendix A.
- 8.4.4 Upon completion of all conformity inspections conducted on behalf of the requesting authority, the FAA or the CAAS will complete and return all documentation to the requesting authority, as notified. The civil aviation authority of the state in which the supplier is located will note all deviations from the requirements notified by the design approval applicant's civil aviation authority on the conformity certification for the particular part. Any nonconformity described as a deviation should be brought to the attention of the FAA or the CAAS for evaluation and disposition. The FAA or the CAAS should receive a report stating the disposition required on each deviation before an FAA Form 8130-3 or CAAS(AW)95 is issued.
- 8.4.5 Conformity certification on prototype articles and inspections on production articles should not be construed to be an export airworthiness approval, as a conformity certification does not constitute an airworthiness determination.

Airworthiness determinations remain the responsibility of the design or production approval holder and the certificating authority.

8.5 Surveillance and Other Support

The FAA or the CAAS may request other types of technical assistance outlined in paragraph 8.1.3. Each request will be handled on a case-by-case basis, as resources permit. Each written request will include sufficient information for the task to be performed and reported back to the requestor. Where the technical assistance is repetitive or long-term, an agreement may be needed.

8.6 Airworthiness Certificates

There may be certain programs and conditions that warrant technical assistance for the issuance of standard airworthiness certificates so that aircraft may be placed directly into operation from the site of manufacture. The importing authority may seek assistance from the exporting authority in the final processing and delivery of an airworthiness certificate while the aircraft is being manufactured, granted an Export Certificate of Airworthiness by the certificating authority, and entered on the importing country's registry. This will require the development of a special arrangement between the certificating and validating authorities.

8.7 Protection of Proprietary Data and Freedom of Information Act (FOIA) Requests

8.7.1 Protection of Proprietary Data

Both authorities recognize that data submitted by a design approval holder is the intellectual property of that holder, and release of that data by the FAA or the CAAS is restricted. The FAA and the CAAS agree that they will not copy, release, or show proprietary data obtained from either authority or the applicant to anyone other than an FAA or CAAS employee without written consent of the design approval holder or other data submitter. This written consent should be obtained by the FAA or the CAAS from the design approval holder through the civil aviation authority of the state in which the holder is located and will be provided to the other authority.

8.7.2 FOIA Requests

The FAA often receives requests from the public under the United States Freedom of Information Act (FOIA) found in (Title 5 of the United States Code, Section 552 (5 U.S.C. § 552) to release information that the FAA may have in its possession. Each record the FAA has in its possession must be disclosed under the FOIA unless a FOIA exemption applies to that record. Trade secrets and financial or commercial information that is confidential or privileged are examples of criteria that may exempt records from FOIA. Design approval holders' data may include trade secrets or other information that is confidential because release of the information would damage the competitive position of the holder or other person.

When the FAA receives a FOIA request related to a product or article of an FAA approval holder or applicant who is located in the Republic of Singapore, the FAA will request the CAAS assistance in contacting the FAA approval holder or applicant to obtain justification for a determination of what may qualify for exemption under the criteria found in 5 U.S.C. § 552.

8.8 Export Control Limitations

8.8.1 Export control limitations are based on U.S. federal regulations that regulate the export of certain goods and services to foreign countries, e.g. U.S. International Traffic in Arms Regulations found in 22 CFR Part 121.1 Category VIII, *Aircraft and Related Articles*. The FAA may have these limitations with any country to ensure compliance with all applicable federal laws. The FAA will work with the CAAS on export limitation issues.

8.9 Accident/Incident and Suspected Unapproved Parts Investigation Information Requests

8.9.1 When either the FAA or the CAAS needs information for the investigation of service incidents, accidents, or suspected unapproved parts involving a product or article imported under these Implementation Procedures, the request for the information should be directed to the appropriate office of the appropriate authority. FAA requests for information should be directed to the CAAS Airworthiness/Flight Operations Division. CAAS requests for information should be directed to the FAA AIR International Office. Upon receipt of the request for information, the authority will ensure that the requested information is provided in a timely manner.

8.9.2 In case of an incident/accident, the FAA and the CAAS will cooperate to address urgent information needs. Following an incident/accident, the FAA or the CAAS will provide the requested information. The FAA and the CAAS will establish individual focal points to respond to each other's questions and ensure that timely communication occurs. The FAA or the CAAS may request information directly from a manufacturer because immediate contact with the appropriate focal points cannot be made. If the FAA or the CAAS requests information directly from a manufacturer, notification of this action will be made to the other authority as soon as possible. Either the FAA or the CAAS, as applicable, will assist in ensuring that the manufacturer provides requested information expeditiously.

SECTION IX SPECIAL ARRANGEMENTS AND MANAGEMENT PLANS

9.1 General

- 9.1.1 Urgent or unique situations may develop that have not been specifically addressed in these Implementation Procedures, but are within the scope of the BASA. If an urgent or unique situation arises, it will be reviewed by the respective FAA Aircraft Certification Service Executive Director and the Senior Director of CAAS Airworthiness/Flight Operations Division, and a procedure will be developed to address the situation. The procedure will be mutually agreed upon by the FAA and the CAAS in a separate Special Arrangement. If it is apparent that the situation is unique, with little possibility of repetition, then the Special Arrangement will be of limited duration. However, if the situation requires new technology or management developments that could lead to further repetitions, these Implementation Procedures will be revised accordingly by the FAA and the CAAS.
- 9.1.2 It should be noted, when the unique or urgent situation falls within the responsibility of an FAA Aircraft Certification Office Manager, the Manager along with the Aircraft Certification Service International Office will be responsible for developing the necessary procedures with the CAAS.
- 9.1.3 When detailed terms and explanations of technical procedures are needed to carry out activities that fall within the scope of these Implementing Procedures or a Special Arrangement under these Implementing Procedures, then those terms and explanations will be set forth in Management Plans agreed to by the FAA and the CAAS.

SECTION X AUTHORITY

10.1 General

The FAA and the CAAS agree to the provisions of these Implementation Procedures as indicated by the signature of their duly authorized representatives.

Federal Aviation Administration
Department Of Transportation
United States Of America

Civil Aviation Authority of Singapore
Ministry of Transport
Republic of Singapore

By



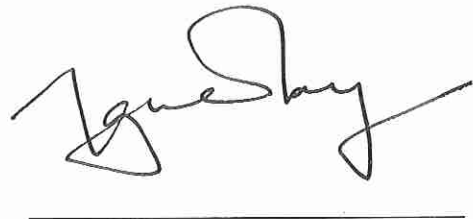
Title

Deputy Administrator (A)

Date

February 6, 2018

By



Title

Deputy Director General

Date

February 6, 2018

APPENDIX A ADDRESSES

A.1 List of Addresses for the FAA and the CAAS

A.1.1 Key FAA Offices for these Implementation Procedures:

Application for U.S. Supplemental Type Certificate Approval

Federal Aviation Administration
Seattle ACO Branch (AIR-780)
1601 Lind Avenue SW
Renton, WA 98057-3356

Phone: 1-425-917-6400
Fax: 1-425-917-6590

Bilateral Agreement, Export / Import Approvals, Policy

Federal Aviation Administration
Aircraft Certification Service
International Division (AIR-400)
800 Independence Avenue SW
Washington DC 20591

Phone: 1-202-267-0908
Fax: 1-202-493-5144
Email: 7-AWA-AVS-AIR-040@faa.gov

Application for Letter of TSO Design Approval

Federal Aviation Administration
Los Angeles ACO Branch (AIR-790)
3960 Paramount Boulevard
Lakewood, CA 90712-4137

Phone: 1-562-627-5200
Fax: 1-562-627-5210

Manufacturing Inspection

Federal Aviation Administration
System Oversight Division (AIR-800)
1601 Lind Avenue SW
Renton, WA 98057

Phone: 1-425-227-2108
Fax: 1-425-227-1100

A.1.2 Key CAAS office for these Implementation Procedures is:

Airworthiness/Flight Operations Division
Civil Aviation Authority of Singapore
Room 047-029, 4th Storey Terminal 2
Singapore Changi Airport
Singapore 819643

A.2 Malfunctions, Failures, and Defects (MF&D)/Service Difficulty Reports (SDR) Reporting Locations

- A.2.1 Copies of U.S. MF&D/SDR reports are available from the FAA Mike Monroney Aeronautical Center, Aviation Data Systems Branch, AFS-620. Copies of U.S. MF&D reports are also available on the Mike Monroney Aeronautical Center internet web site at <http://av-info.faa.gov/sdrx>.
- A.2.2 Copies of Singapore MF&D/SDR reports are available from the CAAS Airworthiness/Flight Operations office upon request.

*ADDENDUM TO THE IMPLEMENTATION PROCEDURES FOR AIRWORTHINESS
between the Federal Aviation Administration (FAA) and the Civil Aviation Authority of
Singapore (CAAS)*

1. Authorization

This Addendum supplements the Implementation Procedures for Airworthiness (IPA) dated February 6, 2018, Section II.

2. Purpose

The purpose of this Addendum is to further describe the limitations noted in Table 2 of the IPA, Section II: Summary of Republic of Singapore State of Design Products and Articles Eligible for Export to the U.S., and CAAS compliance determinations for which the FAA may conduct a further technical review.

3. Areas of Compliance Determination Limitations by the FAA

3.1. 14 CFR part 25 aircraft

3.1.1. The FAA will accept STC applications and compliance determinations made by the CAAS for the following:

- (a) Passenger cabin and crew rest compartment reconfigurations, communications systems, and in-flight entertainment (IFE) systems modifications.
- (b) Similar modifications of equal scope and complexity. Those modifications must not adversely impact the aircraft's handling qualities or affect the certified maximum gross weight and the rated power of the aircraft.

3.2. Additional information

3.2.1. Certification plans must be submitted for FAA acceptance at the time of application for an STC.

3.2.2. The FAA will determine our level of review for equivalent levels of safety, development of special conditions, and granting of exemptions.

3.2.3. The FAA will accept all compliance determinations (within the scope) for 14 CFR part 25 and data approvals made by the CAAS when assigned by the FAA without further review.

4. Streamlined Validation

4.1. Streamlined Validation is a process where the validating authority accepts the certification and design data provided by the certifying authority as the basis upon which the validating authority's design approval will be issued without any further technical involvement. When the certifying authority sends the application to the validating authority, the certifying authority will include their request (on the title page or cover letter) for Streamlined Validation.

4.2. The following applications are eligible for Streamlined Validation if they meet the following criteria:

4.2.1. For FAA Streamlined Validation of CAAS LODA applications to FAA, the application from the CAAS must:

- (a) be limited to the scope of the IPA as noted in Table 2 of the IPA and in Paragraph 3 of this Addendum;
- (b) be generated from the CAAS DOA holder that had an STSO of the same type previously validated by FAA; and
- (c) have already been issued an CAAS STSO Certificate of Approval.

4.2.2. For the CAAS Streamlined Validation of FAA STSO Certificate of Approval applications to the CAAS, the application from FAA must:

- (a) be limited to the scope of the IPA as noted in Table 1 of the IPA;
- (b) be generated from an FAA design approval holder that had a TSOA of the same type previously validated by the CAAS; and
- (c) have already been issued with a FAA TSOA.

4.3. The validating authority will accept the certificating authority's design approval with an accompanying statement of compliance and rely on the data provided by the certificating authority, including acceptance of any certificating authority approved manuals provided as part of the application package.

4.4. Once the data requirements for the Streamlined Validation process have been met, the administrative review of the application file has been completed, and the applicable design approval documentation has been prepared, the validating authority shall issue the corresponding design approval or letter of acceptance, as appropriate.

4.5. The validating authority may perform a technical review on the application only after the issuance of the validating authority's approval. This post review of applications is intended to verify the proper classification of Streamlined Validation and further evaluate technical content, if necessary.

5. Applications Outside Current Scope of IPA

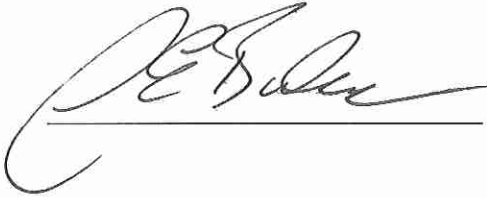
5.1. When the CAAS intends to submit an application for the validation of a CAAS STC to the FAA in a technical area which is not within the scope of this IPA, the CAAS will contact the applicable FAA office indicated in Appendix A and communicate the CAAS intentions. For such cases, the FAA may elect to conduct a technical evaluation of CAAS's understanding of the STC requirements prior to accepting the application. The result of the technical evaluation may be used to develop the certification basis and determine the FAA level of involvement.

6. The FAA and the CAAS agree to the provisions of this Addendum as indicated by the signature of their duly authorized representatives.

Federal Aviation Administration
Department Of Transportation
United States Of America

Civil Aviation Authority of Singapore
Ministry of Transport
Republic of Singapore

By



By



Title

Deputy Administrator (A)

Title

Deputy Director General

Date

February 6, 2018

Date

February 6, 2018