IMPLEMENTATION PROCEDURES

For

AIRWORTHINESS

Covering

DESIGN APPROVAL, PRODUCTION AND SURVEILLANCE ACTIVITIES,

EXPORT AIRWORTHINESS APPROVAL,

POST DESIGN APPROVAL ACTIVITIES, AND

TECHNICAL SUPPORT

Under the Agreement between
The Government of the United States of America
and
The Government of the Republic of Singapore
For the Promotion of Aviation Safety

Revision 3
September 23, 2025

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SECTION I GENERAL

1.1 Authorization

These Implementation Procedures for Airworthiness, referred hereafter as "Implementation Procedures" or "IPA", are authorized by Article III of the Agreement between the Government of the Republic of Singapore (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." The Federal Aviation Administration (FAA) and the Civil Aviation Authority of Singapore (CAAS) (hereinafter referred to individually as an "Authority" and collectively as "the Authorities"), have determined that the aircraft certification systems of each Authority for the design approval, production approval, airworthiness approval, environmental approval, and continuing airworthiness of the civil aeronautical products and articles identified in this document are sufficiently equivalent or compatible in structure and performance to support these Implementation Procedures. These Implementation Procedures replace the previously signed IPA dated February 6, 2018.

1.2 Purpose

The purpose of this IPA is for the FAA and the CAAS to define the civil aeronautical products and articles eligible for import into the U.S. and Singapore as Importing States, the process for obtaining eligibility for import, and the means for providing continued support of those civil aeronautical products and articles after import. Furthermore, the FAA and the CAAS may provide technical support to each other when activities, within the scope of these Implementation Procedures, are conducted in either the U.S. or Singapore. Such technical support may consist of regulatory surveillance and oversight functions conducted by either the FAA or the CAAS on the other's behalf through the provisions of Section VIII.

1.3 Principles

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

1.3.2 The FAA and the CAAS are committed to the reduction of duplication of work and findings of compliance when acting as the VA or Certifying Authority for the Importing State.

1.3.3 The FAA and the CAAS mutually recognize and accept each other's delegation systems as part of their respective aircraft certification systems. To the maximum extent permitted by these Implementation Procedures and each Authority's regulations, the findings, compliance determinations, and approvals made through these systems are given the same validity as those made directly by either the FAA or the CAAS.

1.3.4 The FAA and the CAAS will not routinely notify the other of their designees', delegates' or delegated organizations' routine activities in advance of any of those persons traveling to the U.S. or Singapore to witness tests, to perform conformity inspections, and/or to make determinations of compliance. There may be situations where one Authority may communicate directly with an individual designee or delegate of the other Authority. In this case, prior notification to the other Authority is required.

1.3.5 The FAA and the CAAS have agreed that all information, including regulations, procedures, policies, and technical documentation, exchanged under these Implementation Procedures will be in the English language.

1.4 Changes in the Authority Aircraft Certification Systems

1.4.1 These Implementation Procedures are based upon sufficiently equivalent or compatible Authority certification systems being in place at the time of signing. Therefore, the FAA and the CAAS shall keep each other informed of significant changes within

those systems within a reasonable timeline, such as changes in:

1.4.1.1 Statutory responsibilities;

1.4.1.2 Organizational structure (e.g., key personnel, management structure, technical training, office location);

1.4.1.3 Significant revisions to airworthiness, certification, and environmental standards and procedures;

1.4.1.4 Production quality system oversight, including oversight of out-of-country production of products and articles; or

1.4.1.5 Delegated functions or the types of organizations to which functions have been delegated, and those mechanisms of the system that manage their interfaces, such as changes to delegated functions.

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.

1.4.3 To the extent practicable and in accordance with applicable laws, the FAA and the CAAS will notify each other of relevant draft regulations, policy, and guidance material and will consult on new or proposed changes to airworthiness and environmental standards.

1.5 Governance

The Authorities will convene management meetings once every two years to review these Implementation Procedures and ensure their continued validity. The frequency of these meetings will be determined by both Authorities, via the focal points identified in Appendix A, and will depend on the number and significance of the issues to be discussed between the Authorities. Every effort should be made to alternate the location of these meetings between the U.S. and Singapore.

1.6 Continued Maintenance of Confidence

1.6.1 The BASA Executive Agreement states that these Implementation Procedures will be subject to periodic review. There is an obligation placed on the FAA and the CAAS to ensure that both Authorities remain capable of carrying out the obligations contained in these Implementation Procedures beyond the period of initial assessment that resulted in the original version of these Implementation Procedures. The periodic reviews will focus on the continuing compatibility of the airworthiness systems as prescribed by the BASA Executive

Agreement and maintaining mutual confidence in the FAA's and the CAAS's technical competence and ability to perform regulatory functions within the scope of these Implementation Procedures.

1.6.2 In order to ensure the continuing ability by the FAA and the CAAS to rely on each other under these Implementation Procedures, the two Authorities shall establish a process to implement a periodic review that is intended to promote continued understanding and compatibility in each other's systems. Both Authorities shall determine the procedures and processes constituting such a process, to be conducted on a regular basis. The process will be performance based and may employ metrics for key milestones. The FAA and the CAAS will review the outcomes during regular bilateral meetings and seek resolution to address any areas for improvement. This oversight model will cover at least the following elements:

1.6.2.1 Desktop sampling audit process to verify approvals and findings post-validation. The process should include provisions for optional sampling visits based on the trend of results of the desktop exercise;

1.6.2.2 Sharing of relevant information on standardization and quality management activities;

1.6.2.3 Tracking of metrics related to the milestones outlined in paragraph 3.5.2 as well as the time from application to VA approval of all approval types covered under the scope of these Implementation Procedures. Periodic review of these metrics will take place at a frequency consistent with that established under paragraph 1.6.2;

1.6.2.4 Establishment of a sampling system of production systems in accordance with paragraph 1.6.2; and

1.6.2.5 Findings resulting from the sampling system audits performed by one Authority will be shared with the other. Resolution and follow-up of these findings will be agreed upon between the FAA and the CAAS and will be presented and discussed during regular bilateral meetings.

1.7 Applicable National Requirements, Procedures, and Guidance Material

1.7.1 The FAA's standards for airworthiness and environmental certification include, but are not limited to: Title 14 of the Code of Federal Regulations (14 CFR), parts 21, 23, 25, 26, 27, 29, 31, 33, 34, 35, 36, and 38. The FAA also uses European Union Aviation Safety Agency (EASA) Certification Specifications (CS)-22, CS-VLA (Very Light Airplanes), Joint Aviation Requirements (JAR)-22, and JAR-VLA for some special class

aircraft. Additional regulations are included in Airworthiness Directives (ADs). Guidance material, policy, and procedures are contained in FAA Advisory Circulars (ACs), Orders, Notices, and Policy Memoranda.

Note: 14 CFR parts 34, 36, and 38 make direct reference to Annex 16 of the Convention on Civil Aviation (Chicago Convention) (commonly cited as ICAO Annex 16), Volumes I and II, and the associated ICAO Environmental Technical Manual.

1.7.2 The CAAS's standards for aircraft, aircraft engine, and propeller airworthiness and environmental certification include, but are not limited to those stated in the Singapore Airworthiness Requirements Part 21 (SAR-21) Subpart I.

Note: The reference to SAR-21 in this Technical Arrangement includes a reference to the ANR-21 which, when published, will replace the SAR-21.

1.7.3 The FAA and the CAAS shall comply with their respective applicable domestic laws in applying these Implementation Procedures.

1.8 Interpretations and Resolution of Conflicts

1.8.1 In the case of conflicting interpretations between the FAA and the CAAS regarding the laws, airworthiness or environmental regulations/standards, requirements, or acceptable means of compliance pertaining to certifications, approvals, or acceptance under these Implementation Procedures, the interpretation of the Authority whose laws, regulations, standards, requirements, or acceptable means of compliance are being interpreted will prevail. For harmonized laws, regulations, standards, requirements, or acceptable means of compliance the CA's interpretation will prevail.

1.8.2 The FAA and the CAAS will resolve issues in a timely manner through consultation. Every effort should be made to resolve issues at the working staff level before elevating issues through the responsible management hierarchy. To resolve issues, the FAA and the CAAS shall use the following process:

1.8.2.1 When a Program Manager cannot resolve an issue, the first certification decision point is between the FAA local office manager and the CAAS Section Head for Airworthiness Engineering or Design & Production Organization and FAA Aircraft Certification Service (AIR) International Office.

1.8.2.2 If a resolution cannot be reached, the issue will be expeditiously escalated to the FAA AIR Division Director, and the CAAS Deputy Director of Airworthiness Certification and AIR International Office.

1.8.2.3 If a resolution cannot be reached, the FAA Aircraft Certification Service Executive Director and the CAAS Director of Flight Standards division shall resolve the matter.

1.9 Technical Consultations

1.9.1 The FAA and the CAAS recognize that revisions by either Authority to its organization, regulations, procedures, or standards may affect the basis on which these Implementation Procedures are executed. In accordance with each Authority's applicable laws and regulations, each Authority will advise the other of plans for such changes at the earliest possible opportunity and discuss the extent to which such planned changes affect the basis of these Implementation Procedures. If consultations result in an arrangement to amend these Implementation Procedures, the Authorities will seek to ensure that such an amendment becomes effective at the same time as, or as soon as possible after, the effective date of or implementation of the change that prompted such an amendment.

1.9.2 The FAA and the CAAS will 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.

1.9.3 The FAA and the CAAS will communicate openly at the Authority level and assist each other in resolving complex certification or technical issues outside of specific projects.

1.10 Cooperation on Investigation or Enforcement Action

1.10.1 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.

1.10.2 Both the FAA and the CAAS shall cooperate and assist in the investigation of any alleged or suspected violations of the FAA or the CAAS laws or regulations. Both Authorities shall cooperate in sharing information needed for any investigation or enforcement action, including its closure. The sharing of information will be subject to the respective laws and regulations of the U.S. and Singapore that govern the disclosure or sharing of the requested information. Appendix A of this document references any relevant points of contact for the sharing of information.

1.11 Revisions, Amendments, and Points of Contact

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

1.11.2 Minor revisions and administrative/editorial changes to these procedures may be made by the focal points after mutual consultation.

1.11.3 The designated focal points for these Implementation Procedures are:

1.11.3.1 For the FAA: Aircraft Certification Service, International Office (AIR-40); and

1.11.3.2 For the CAAS: Flight Standards Division.

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

1.12 Reserved

1.13 Definitions

Notwithstanding the definitions set forth in Title 14 of the Code of Federal Regulations and in the CAR, for purposes of these Implementation Procedures, the following definitions shall apply. Additional definitions are found in Article II of the BASA Executive Agreement. If there is any discrepancy between a definition in Article II of the BASA Executive Agreement and the following definitions, the following definitions shall apply.

1.13.1 "Acceptance" means the certifying authority (CA) has granted an approval or finding of compliance and the validating authority (VA) will accept that approval or finding as satisfactory evidence that a product and/or design complies with the validating authority's (VA's) applicable standards and will consider the CA approval as its own equivalent approval.

1.13.2 "Accountable Manager" means a representative of the applicant, or the holder of a production approval, who serves as the primary contact with the FAA. The accountable manager is responsible for, and has the authority over, all production operations that are conducted pursuant to 14 CFR part 21. For CAAS, the accountable manager refers to the manager of an organization who has corporate authority for ensuring that activities within the scope of an Approval are carried out to the

applicable requirements of the Singapore Airworthiness Requirements Part 21.

1.13.3 "Acoustical Change" means any voluntary change in the type design of an aircraft that may increase the noise levels of that aircraft.

1.13.4 "Additional Technical Condition", for the purpose of design approval, means a requirement in the VA's certification basis that is in addition to the applicable airworthiness and environmental requirements defined in the CA's certification basis to ensure that the CA's:

(a) airworthiness standards provide a level of safety equivalent to that provided by the applicable airworthiness requirements for the VA, and

(b) environmental standards, provides noise, fuel venting, and exhaust emission levels no greater than those provided by the applicable environmental requirements of the VA.

1.13.5 "Aircraft" means:

1.13.5.1 For the FAA, it means a device that is used or intended to be used for flight in the air.

1.13.5.2 For the CAAS, it means any machine that can derive support in the atmosphere from the reactions of the air otherwise than by the reactions of the air against the surface of the earth.

1.13.6 "Aircraft Engine" means an engine that is used or intended to be used for propelling aircraft. It includes turbosuperchargers, appurtenances, and accessories necessary for its function, but does not include propellers or rotors.

1.13.7 "Aircraft Flight Manual (AFM)" See *Approved Manual*.

1.13.8 "Aircraft Model" means an aircraft manufacturer's designation for an aircraft grouping with similar design or style of structure. The aircraft model listed in the aircraft TC is the designation used by the aircraft manufacturer to distinguish a particular aircraft or is the designation used by a national military or armed force to distinguish a particular aircraft. If an aircraft is of amateur construction, then the aircraft model would be the name designated by the organization responsible for the design in most cases. The aircraft model, when coupled with the aircraft make, must be unique in order to identify that aircraft grouping. The aircraft model, when coupled with the aircraft manufacturer and aircraft serial number, must be unique.

1.13.9 "Airworthiness Approval" means a document, issued by either Authority 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, unless otherwise specified.

1.13.10 "Airworthiness Certificate" means a standard airworthiness certificate: FAA Form 8100-2, issued by the FAA; and Form CAAS(AW)81, issued by the CAAS, and special airworthiness certificate, FAA Form 8130-7, issued by the FAA; and permit to fly, Form CAAS(AW)120, issued by the CAAS.

1.13.11 "Airworthiness Directives (AD)"

1.13.11.1 For the FAA, means legally enforceable rules issued by the FAA in accordance with 14 CFR part 39.

1.13.11.2 For CAAS, means the following to mandate actions to be performed to restore an acceptable level of safety for an aircraft or a component, when evidence shows that the safety level may otherwise be compromised:

a) substantive regulations issued by the FAA in accordance with 14 CFR part 39;
b) mandatory airworthiness action issued by the FCAA; or
c) legally enforceable rules issued by the CAAS in accordance with the Air Navigation Act 1966 and SAR-39 or ANR-39.

1.13.12 "Airworthiness Standards" means the regulations, requirements, airworthiness codes or other certification specifications governing the design and performance of civil aeronautical products and articles.

1.13.13 "Alteration" means a design change is made on a single aircraft. For "major alterations," this involves the use of FAA approved data to effect the change, documented on FAA Form 337 (Major Repair and Alteration form) and is approved by Flight Standards Division (FSDO) or FAA 14 CFR Part 145 Repair Stations on U.S. registered aircraft."

1.13.14 Appliance" means any instrument, mechanism, equipment, 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 the airframe, engine, or propeller.

1.13.15 "Approved" unless used with reference to another person, means approved by the FAA or the CAAS, or any person to whom the FAA or CAAS has delegated its authority in the matter concerned, or approved under the provisions of the BASA Executive Agreement between the United States and Singapore.

1.13.16 "Approved Manuals" means manuals, or sections of manuals, requiring approval by the FAA or FCAA as part of a

certification program. These include the approved sections of the Flight Manual, the airworthiness limitations section of the Instructions for Continued Airworthiness (ICA), the engine and propeller installation and operating instructions manuals, and the certification maintenance requirements where applicable.

1.13.17 "Article" means:

1.13.17.1 For the FAA, an article means a material, part, component, process, or appliance. Articles may include sealants, modified standard parts, brake assemblies, etc. See 14 CFR section 21.1.

1.13.17.2 For the CAAS, an article means where applicable, a material, process, part, or appliance used on a product. See SAR-21.10.

1.13.18 "Certificating Authority (CA)" means the FAA or the CAAS, as charged by their laws to fulfill the ICAO responsibilities as a State of Design or a State of Design of Modification to regulate the design, production, and airworthiness approval and environmental certification of civil aeronautical products and articles originated in their State.

1.13.19 "Certification Basis" means the applicable airworthiness and environmental requirements established by a certificating (certifying) authority (CA) or validating authority as the basis by which the type design for a civil aeronautical product, or a change to that type design was approved or accepted. The certification basis may also include Special Conditions, Findings of Equivalent Level of Safety, and exemptions when determined to apply to the type certificate.

1.13.20 "Certification Branch (CB)" means the field branch of the FAA Aircraft Certification Service. It administers and secures compliance with agency regulations, programs, standards, and procedures governing the design approval of replacement and modification articles.

1.13.21 "Civil Aeronautical Product" or "Product" means any civil aircraft, aircraft engine, or propeller, or subassembly, appliance, material, part, or component to be installed thereon.

1.13.22 "Commercial Part" means a part that is listed on an FAA-approved Commercial Parts List included in a design approval holder's Instructions for Continued Airworthiness required by 14 CFR section 21.50.

1.13.23 "Compliance Determination" means the determination, by either the certificating authority's (CA's) system or the validating authority's (VA's) system, that the applicant has demonstrated

compliance with identified, individual airworthiness and environmental protection standards.

1.13.24 "Concurrent Certification" means a process whereby the certification applicant requests validation of the design at the same time as certification is conducted by the CA.

1.13.25 "Continued Operational Safety (COS)" means that which ensures the integrity of a product throughout its service life. This involves problem prevention, service monitoring and corrective actions that feedback into a product's design and production.

1.13.26 "Corrective Action" means the measures taken to resolve unsatisfactory conditions and to prevent reoccurrence.

1.13.27 "Critical Part" means a part identified as critical by the design approval holder during the product type validation process, or otherwise by the exporting authority. 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.

1.13.28 "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.

1.13.29 "Design Approval Holder (DAH)" means:

1.13.29.1 For the FAA, the holder of any design approval, including TCs (amended and STCs), PMAs, TSO authorization, and letters of TSO design approval.

1.13.29.2 For CAAS, the holders of a Design Approval such as Letter of acceptance of TC, STCs, Singapore TSO certificate of approval, and repair design approvals (CAAS Form (AW)207).

1.13.30 "Deviation" when used with respect to TSO 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.

1.13.31 "Distributor" means any person engaged in the sale or transfer of products and articles for installation in type-

certificated aircraft, aircraft engines, or propellers, and that conducts no manufacturing activities.

1.13.32 "Emissions Change" means any voluntary change in the type design of an aircraft or aircraft engine which may increase fuel venting or exhaust emissions.

1.13.33 "Environmental Approval" means a finding made by the Authority that a civil aeronautical product complies with standards defined by that Authority concerning aircraft noise, aircraft/engine fuel venting, engine exhaust emissions, and/or airplane carbon dioxide emissions.

1.13.34 "Environmental Compliance Demonstration" 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, fuel efficiency, or exhaust emissions.

1.13.35 "Environmental Standards" means regulations or certification specifications governing designs with regard to noise characteristics, fuel venting, and exhaust emissions of civil aeronautical products and articles.

1.13.36 "Environmental Testing" means a process by which a civil aeronautical product is evaluated by the Authority for compliance with environmental standards defined by that Authority, using procedures determined between the Authorities.

1.13.37 "Equivalent Level of Safety Finding (ELOS) or Equivalent Safety Finding (ESF)" means a finding that alternative action taken provides a level of safety equal to that provided by the standards for which equivalency is being sought.

1.13.38 "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.

1.13.39 "Export" means the process by which a product or article is released from the FAA's or the CAAS's regulatory system for subsequent use in the other's regulatory system.

1.13.40 "Exporting Civil Airworthiness Authority" means the organization within the exporting State charged by the laws of the exporting State, to regulate the airworthiness and environmental certification, approval, or acceptance of civil aeronautical products, and articles. The Exporting Civil Aviation Authority will be referred to herein as the Exporting Authority (EA).

1.13.40.1 For the U.S., the Exporting Authority is the FAA; and

1.13.40.2 For Singapore, the Exporting Authority is the CAAS.

1.13.41 "Familiarization" means the process whereby the Validating Authority (VA) obtains information and experience on a civil 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.

1.13.42 "Field Approval" means a method by which FAA approves technical data used to accomplish a major repair or a major alteration on a single aircraft, provided the repair or alteration is not classified as a major change in type design. An FAA inspector's signature in Block 3 of an FAA Form 337, Major Repair and Alteration, approves the data referenced on the form.

1.13.43 "Finding" for the purposes of this document, means a determination of compliance or non-compliance to the applicable airworthiness and/or environmental protection standards as the result of the Authority's review, investigation, inspection, test, and/or analysis.

1.13.44 "Flight Test" means any flight test performed on the product test article that is controlled or evaluated by FAA or CAAS flight test personnel (or their designees), in support of appropriately authorized official testing.

1.13.45 "Implementation Procedures" means a document under the BASA Executive Agreement that specifies detailed procedures on cooperation between the FAA and CAAS in a discipline of aviation safety oversight.

1.13.46 "Import" means the process by which a product or article is accepted into the FAA's or the CAAS's regulatory system for subsequent use in that regulatory system.

1.13.47 "Importing Civil Airworthiness Authority" means the organization within the importing State charged by the laws of the importing State with regulating the airworthiness and environmental certification, approval, or acceptance of civil aeronautical products, and articles. The Importing Civil Airworthiness Authority will be referred to herein as the Importing Authority (IA).

1.13.47.1 For the U.S., the Importing Authority is the FAA.

1.13.47.2 For Singapore, the Importing Authority is the CAAS.

1.13.48 "Instructions for Continued Airworthiness (ICA)" means the required information, as per 14 CFR section 21.50, or CAAS SAR-21.330, developed in accordance with applicable

airworthiness requirements that include the applicable inspection tasks, intervals, methods, processes, procedures, and airworthiness limitations to keep the product airworthy throughout its operational life.

1.13.49 "Issue Paper (IP)" means a document describing an item that requires resolution prior to the issuance of a design approval.

1.13.50 "Letter of TSO 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.

1.13.51 "Licensing Agreement" means a commercial contract between a design approval 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.

1.13.52 "Maintenance" means the performance of inspection, overhaul, repair, preservation, and the replacement of parts, materials, appliances, or components of a civil aeronautical product to ensure the continued airworthiness of that civil aeronautical product, but excludes alterations and modifications as defined by the CAAS system.

1.13.53 "Maintenance Records" means the records of maintenance for an aircraft, aircraft engine, or propeller. Commonly referred to as a "logbook."

1.13.54 "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.

1.13.55 "Management Plan" means a working-level document that prescribes a detailed method for achieving a technical process derived from an activity stated in the BASA Executive Agreement or Special Arrangement.

1.13.56 "Manufacturer" means the person who, by FAA or CAAS regulation, is responsible for determining that all products or articles 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.

1.13.57 "Minor Repair" means any repair other than a major repair.

1.13.58 "Model" see Aircraft Model.

1.13.59 "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.

1.13.60 "Multi-National Consortium" means a group of companies from multiple countries who have agreed to form a single company for the design and/or production of a particular product.

1.13.61 "New Aircraft Engine/Propeller" means an aircraft engine or propeller that is still owned by the manufacturer, distributor, or dealer; and has never been installed on an aircraft, has no time in service other than testing by the manufacturer, and meets all technical requirements for a new product.

1.13.62 "New Aircraft" means an aircraft that is still owned by the manufacturer, distributor, or dealer, if there is no intervening private owner or lease or time-sharing arrangement, and the aircraft has not been used in any pilot school and/or commercial operation.

1.13.63 "Non-TSO Function" means one 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.

1.13.64 "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.

1.13.65 "Parts Manufacturer Approval (PMA)" means a combined design and production approval issued for modification or replacement articles. It allows a manufacturer to produce and sell these articles for installation on type certificated/validated products.

1.13.66 "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.

1.13.67 "Production Approval" means:

1.13.67.1 For the FAA, a document issued to a person that allows the production of a product or article in accordance with its approved design and approved quality system, and can take a form of a Production Certificate, a Parts Manufacturer Approval (PMA), or a Technical Standard Order (TSO) authorization.

1.13.67.2 For the CAAS, a production organization approval (POA) certificate issued to an organization that allows the production of articles in accordance with approved design following the approved production and quality control system.

1.13.68 "Production Approval Holder (PAH)" means the holder of a production certificate, a Parts Manufacturer Approval (PMA), or a Technical Standard Order (TSO) authorization. This person controls the design and quality of a product or article.

1.13.69 "Production Certificate Extension" means an extension by the FAA of a Production Certificate to a facility located in another country or jurisdiction.

1.13.70 "Production Noncompliance" means a Production Approval Holder's (PAH's), Approved Production Organization's (APO's), or associate facility's operating practice that is found to be inconsistent with 14 CFR, CAR, FAA-approved data, CAAS-approved data, or internal procedures. A supplier's operating practice found to be inconsistent with a PAH's, APO's, or associate facility's purchase order requirements is considered to be a noncompliance by the PAH, APO, or associate facility.

1.13.71 "Production Organization Approval Holder" means the holder of a Production Approval certificate issued by the CAAS.

1.13.72 "Production Quality System" means a systematic process that meets the requirements of the Authority for the issuance of production approval and ensures that the products and articles produced under this production quality system will conform to the approved design and will be in a condition for safe operation.

1.13.73 "Production System" means a systematic process which meets the requirements of the Authority for the State of Manufacture (SoM) and ensures that products and articles will

conform to the approved design and will be in a condition for safe operation.

1.13.74 "Project Manager (PM)" means the person (individual or team lead) responsible for managing the project or design approval application to FAA or CAAS.

1.13.75 "Quality System" means a documented organizational structure containing responsibilities, procedures, processes, and resources that implement a management function to determine and enforce quality principles.

1.13.76 "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 by the production approval holder in accordance with 14 CFR part 43.

1.13.77 "Restricted Category Aircraft" means an aircraft intended for special purpose operations that:

1.13.77.1 meets the airworthiness requirements of a standard category less those that are inappropriate for a special purpose operation, complies with the applicable noise requirements, and has no feature or characteristic that makes it unsafe when operated under the limitations prescribed for its intended use, or

1.13.77.2 is of a type that has been manufactured in accordance with the requirements of and accepted for use by, an Armed Force of the U.S., was modified for a special purpose operation, complies with the applicable noise requirements, and has no feature or characteristic that makes it unsafe when it is operated under the limitations prescribed for its intended use. Military surplus aircraft must be surplus of the U.S. Armed Forces.

1.13.78 "Revocation" means when an approval is no longer valid, and the holder may not exercise any of its privileges.

1.13.79 "Special Emphasis Items (SEI)" mean areas used by the CA and VA to classify validation projects and to manage the VA level of review of those projects.

1.13.80 "Sequential Validation" means a process whereby the CA has completed its certification, or is well advanced in the certification process, before a validation application is submitted.

1.13.81 "Significant Standards Differences (SSD)" means airworthiness standards differences where "the standards" are substantively different and may result in type design changes (including approved manuals) to meet the airworthiness

standards of the importing authority different from the design and operation approved by the exporting authority. SSDs are typically identified within a specific listing between the validating authority and certificating (certifying) authority at the product level.

1.13.82 "Special Conditions" 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.

1.13.83 "Standard Airworthiness Certificate" means an airworthiness certificate issued in accordance with Article 31 of the Convention on International Civil Aviation for a normal, utility, acrobatic, commuter, or transport category of aircraft, or for a manned free balloon, airship, very light aircraft (VLA), or a glider.

1.13.84 "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.

1.13.85 "State of Design (SoD)" means the State or jurisdiction having regulatory authority over the organization responsible for the design and continued airworthiness of a civil aeronautical product or article.

1.13.86 "State of Manufacture (SoM)" means the State or jurisdiction having regulatory authority over the organization responsible for the production and airworthiness of a civil aeronautical product or article.

1.13.87 "State of Registry (SoR)" means the State or jurisdiction on whose register the aircraft is entered.

1.13.88 "Streamlined Validation" means a process where the validating authority accepts the certification and design data provided by the certificating authority as the basis upon which the validating authority's design approval will be issued without any further technical involvement.

1.13.89 "Supplemental Type Certificate (STC)" means the separate design approval that the FAA or CAAS issues to an applicant who alters a product by introducing a major change in type

design (as defined by 14 CFR section 21.93(a), or CAAS SAR-21 Subpart C that does not require an application for a new TC.

1.13.90 "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.

1.13.91 "Surrender" means when a certificate holder voluntarily relinquishes a certificate and the associated privileges. This surrender does not immediately affect the aircraft previously manufactured.

1.13.92 "Suspension" means a temporary action to withhold the effectiveness or validity of a certificate, approval, or authorization as ordered by the FAA or the CAAS.

1.13.93 "TC/PC Split" means a product for which the State or territory having jurisdiction over the Authority having regulatory responsibility for the design and continued airworthiness of the product or article is different from the State or territory having jurisdiction over the Authority having regulatory responsibility for the production and airworthiness of the product or article.

1.13.94 "Technical Standard Order (TSO)" means a minimum performance standard for specified articles. 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.

1.13.95 "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 TSO authorization is not an approval to install and use the article in the aircraft. It means that the article meets the specific TSO, and the holder is authorized to manufacture it.

1.13.96 "Type Design" means the drawings and specifications necessary to define the product shown to comply with the airworthiness standards, environmental protection requirements, information on dimensions, materials, and processes necessary to define the structural strength of the product; and the Airworthiness Limitations section of the Instructions for Continued Airworthiness (ICA) [FAA's Part 21.31].

1.13.97 "Used Aircraft" means an aircraft that is not a new aircraft.

1.13.98 "Validating Authority (VA)" means the FAA or the CAAS, responsible for reviewing the design, production, airworthiness approval, environmental certification of civil aeronautical

products, and articles based on the certification findings made by the other Authority under its own equivalent regulations.

1.13.99 "Validation" means the FAA's or the CAAS' process for issuing an approval of a design originally approved by the other.

1.13.100 "Work Plan" serves as a scalable project planning document developed by the VA to document the scope of their technical review based on risk-based principles. The Work Plan identifies specific design features, systems, or characteristics of a civil aeronautical product where the VA will focus its technical review as part of its validation process. It is endorsed by the VA management and shared with the applicant and the CA.

SECTION II SCOPE OF THESE IMPLEMENTATION PROCEDURES

2.1 General

2.1.1 These Implementation Procedures apply to such aircraft type designs and articles to be approved by the FAA and the CAAS for standard category airworthiness certification, except as described in 2.1.4.

2.1.2 The FAA and the CAAS do not normally validate approvals issued by the other for products or articles unless there is a demonstrated interest in issuing the approval. Design approval validation will be based on the approval granted by the CA and will not be restricted by aircraft registration.

2.1.3 The FAA issues standard airworthiness certificates in the normal, utility, acrobatic, commuter, and transport categories of aircraft, as well as manned-free balloons and special classes of aircraft which include airships, very light airplanes (VLA), gliders, and other non-conventional aircraft. The CAAS issues certificates of airworthiness in the transport (passenger or cargo), aerial work, private and special categories of aircraft.

2.1.4 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. Restricted category aircraft are not eligible for a standard airworthiness certificate by the FAA.

2.2 Design Approvals and Airworthiness Certifications

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

2.2.1 Design Approvals

2.2.1.1 Type Certificates (TCs) and amended TCs (ATCs) for products listed in Table 1 for which the U.S. is the SoD; and design approvals for products listed in Table 2 for which Singapore is the SoD.

2.2.1.2 Supplemental Type Certificates (STCs) and amended STCs for products listed in Table 1 and STCs, and amended STCs, for products listed in Table 2 that have been issued with both an FAA and a CAAS type design approval or acceptance, regardless of SoD.

2.2.1.3 Design data approved by either Authority, used in the support of repairs or alterations, as identified in 3.3.3, for products and articles for which both the FAA and the CAAS have issued a type design approval or acceptance for the product.

2.2.1.4 TSO and PMA approvals as listed in Table 1; and STSO and article design and production approval as listed in Table 2 (see 2.2.4).

2.2.1.5 Any other design change approved under the CA's system.

2.2.1.6 The FAA and the CAAS do not normally validate design approvals for products or articles outside their regulatory jurisdiction unless there is a demonstrated market interest in issuing the approval.

2.2.2 Export Certificates of Airworthiness

Export Certificates of Airworthiness issued by the U.S. or Singapore for aircraft that conform to a Type Design approved by the Importing Authority (IA), provided that the conditions detailed in 7.2 (as applicable) are satisfied, including:

2.2.2.1 New and used aircraft for which the U.S. is the SoD and also the SoM.

2.2.2.2 New and used aircraft, for which a third State is the SoD and also the SoM.

2.2.2.3 New and used aircraft with different SoD and SoM for which a third State is the SoD, and the U.S. is the SoM, provided that:

(a) An agreement/arrangement has been entered between the SoD and the SoM defining each Authority's roles and responsibilities for continued airworthiness and is available to the Importing Authority (IA);

(b) A licensing agreement exists between the design approval holder and the manufacturer, ensuring the continued airworthiness of the design; and

(c) The TCDS issued by the SoD lists all production approvals.

2.2.2.4 New and used aircraft with different SoD and SoM for which the U.S., or a third State is the SoD and a State other than the U.S is the SoM will require:

(a) Either development of a Special Arrangement under Section IX of these Implementation Procedures; or IA review and acceptance of an existing arrangement established between the SoD and the SoM;

(b) A licensing agreement exists between the design approval holder and the manufacturer, ensuring the continued airworthiness of the design; and

(c) The TCDS issued by the SoD lists all production approvals.

2.2.3 Authorized Release Certificates / Airworthiness Approval Tag (or equivalent)

New and rebuilt aircraft engines and new propellers that conform to a Type Design approved by the IA, provided that the conditions detailed in 7.3 (as applicable) are satisfied, including:

2.2.3.1 New and rebuilt aircraft engines and new propellers for which the U.S. or is the SoD and also the SoM;

2.2.3.2 New and rebuilt aircraft engines and new propellers for which a third State is the SoD, and the U.S. is the SoM, provided that:

(a) A licensing agreement exists between the design approval holder and the manufacturer, ensuring the continued airworthiness of the design;

(b) The IA reviews and accepts an existing arrangement established between the SoD and the SoM; and

(c) The TCDS issued by the SoD lists all production approvals.

2.2.4 Articles

2.2.4.1 CAAS, as the IA, will accept FAA Authorized Release Certificate, Form 8130-3 for the following products and articles:

(a) New FAA TSO articles;

(b) FAA PMA approvals (refer to Section 3.3.4 for details on PMA acceptance);

(c) New replacement and modification parts that conform to CAAS approved design data or FAA approved design data validated/accepted by CAAS and are eligible for installation in a product or article which has been granted CAAS design approval/acceptance, as follows:

(1) Replacement parts for all products and articles, regardless of the State of Design; and

(2) Modification parts for all products and articles, regardless of the State of Design.

2.2.4.2 FAA, as the IA, will accept CAAS Authorized Release Certificates, Form CAAS(AW)95, issued by a production organization approval holder based in Singapore or outside Singapore for the following products and articles:

(a) New articles manufactured under a CAAS STSO and approved via FAA LODA.

(b) New replacement parts (such as repair parts) that conform to FAA-approved design data and are eligible for installation in a product or article which has been granted an FAA design approval for the following:

(1) Airplanes, rotorcraft, aircraft engines, propellers, airships, VLA, gliders, powered lift, and articles, as listed in Table 2, for which Singapore is the State of Design; and

(2) Products or articles for which the U.S., Singapore, or a third State, is the State of Design. In the case of a third State of Design, there must be a bilateral agreement between the U.S. and the third State.

(c) New modification parts that conform to FAA-approved design data and are eligible for installation in a product or article which has been granted an FAA design approval (such as STC or other approvals issued by CAAS), for the following:

(1) articles, as listed in Table 2, for which Singapore is the State of Design for both the /article and the design change; and

(2) Products or articles for which the U.S., Singapore, or a third State, is the State of Design for the design change. In the case of a third State of Design, there must be a bilateral agreement between the U.S. and the third State

2.2.5 Standard Parts

Standard Parts (not commercial parts) conforming to established government or industry accepted specifications are generally delivered by the manufacturer with a Certificate of Conformity and are accepted by both the FAA and the CAAS providing they do conform to established government or industry accepted specifications and are identified by the approved design data of the products or articles in which they are installed.

2.2.6 Environmental Approval

As outlined in Section 3, the VA will accept environmental approvals based upon findings made against 14 CFR parts 34, 36, and 38 by the FAA as CA, or SAR-21 Subpart I by the CAAS as CA, as the basis for establishing compliance with VA environmental requirements.

2.3 Continued Airworthiness

The scope of these Implementation Procedures includes continued airworthiness, as detailed in Section IV.

2.4 Production and Surveillance

The scope of these Implementation Procedures includes production and surveillance, as detailed in Section VI.

2.5 Provisions for Technical Support

The types of technical support activities within the scope of these Implementation Procedures are specified in Section VIII.

2.6 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 support in unique situations which have not been specifically addressed in these Implementation Procedures, but which are within the scope of these Implementation Procedures.

2.7 Summary Table

The following tables summarize the design approvals, products and articles designed and manufactured in the U.S. or Singapore that are eligible for approval under these Implementation Procedures.

Table 1*

*****Summary of U.S. State of Design Products, Articles, and their Associated FAA Approvals Eligible for Approval by the CAAS. Design Approvals issued by the FAA will be issued only to a U.S. based applicant.

PRODUCT	FAA Type Certificates & Amendments	FAA Supplemental Type Certificates	FAA Technical Standard Order Authorizations	Parts Manufacturer Approvals
Airplanes in the following categories:				
Normal	✓	✓	N/A	N/A
Utility	✓	✓	N/A	N/A
Aerobatic	✓	✓	N/A	N/A
Transport	✓	✓	N/A	N/A
Rotorcraft in the following categories:				
Normal	✓	✓	N/A	N/A
Transport	✓	✓	N/A	N/A
Manned Free Balloons	✓	✓	N/A	N/A
Aircraft Engines	✓	✓	N/A	N/A
Propellers	✓	✓	N/A	N/A
Aircraft in Special Classes:				
Airships	✓	✓	N/A	N/A
VLA	✓	✓	N/A	N/A
Gliders	✓	✓	N/A	N/A
Powered Lift	✓	✓	N/A	N/A
Unmanned Aircraft System	✓	✓	N/A	N/A
Aircraft type certificated in the primary, provisional and restricted category	**(see Note 1)**	**(see Note 1)**	N/A	N/A
TSO Articles	N/A	N/A	✓	N/A
PARTS:				
Replacement or Modification Parts for the above airplanes, rotorcraft, balloons, aircraft engines, propellers, special class aircraft, and articles.	✓	✓	✓	✓

Note 1: Aircraft certified in the primary, provisional and restricted categories will be dealt with on a case-by-case basis through the special arrangement provision in Section IX or other means agreed by both parties.

***** Please reference the applicable Safety Elements in paragraph 3.5.3 in combination with this table.

Table 2*

*Summary of CAAS's design and production approvals for product and articles eligible for acceptance/approval by the FAA. Design and production approvals issued by CAAS may be issued to Singapore or non-Singapore based applicants. Only design approvals issued to Singapore based applicants are eligible for acceptance/validation by the FAA under this IPA.

PRODUCT	CAAS Type Certificates/Type Acceptance & Amendments	CAAS Supplemental Type Certificates and Minor Modification Approvals	CAAS Repair Design Approvals	CAAS Singapore Technical Standard Order Certificate of Approval	CAAS article design and production approval
Airplanes in the following categories:					
Normal	Reserved	✓	✓	N/A	N/A
Utility	Reserved	✓	✓	N/A	N/A
Aerobatic	Reserved	✓	✓	N/A	N/A
Commuter	Reserved	✓	✓	N/A	N/A
Transport	Reserved	✓	✓	N/A	N/A
Rotorcraft in the following categories:					
Normal	Reserved	✓	✓	N/A	N/A
Transport	Reserved	✓	✓	N/A	N/A
Manned Free Balloons	Reserved	✓	✓	N/A	N/A
Aircraft Engines	Reserved	✓	✓	N/A	N/A
Propellers	Reserved	✓	✓	N/A	N/A
Aircraft in Special Classes:					
Airships	Reserved	✓	✓	N/A	N/A
VLA	Reserved	✓	✓	N/A	N/A
Gliders	Reserved	✓	✓	N/A	N/A
Powered Lift	Reserved	✓	✓	N/A	N/A
Unmanned Aircraft System	Reserved	Reserved	Reserved	N/A	N/A
Aircraft type certificated in the primary, provisional and restricted category	**(see Note 1)**	**(see Note 1)**	**(see Note 1)**	N/A	N/A
STSO Articles	N/A	N/A	✓	✓	N/A
PARTS:					
Replacement or Modification Parts for the above airplanes, rotorcraft, aircraft engines, propellers, airships, VLA, gliders, powered lift, and articles.	Reserved	✓	✓	✓	✓

Note 1: Aircraft certified in the primary, provisional and restricted categories will be dealt with on a case-by-case basis through the special arrangement provision in Section IX or other means agreed by both parties.

***** Please reference the applicable Safety Elements in paragraph 3.5.3 in combination with this table.

SECTION III VALIDATION PROCEDURES

3.1 General

3.1.1 The principles and procedures in this Section apply to the acceptance or validation of the initial design approval of each other's civil aeronautical products and articles, of subsequent design changes to those products and articles, and approval of design data used in support of repairs and alterations.

3.1.2 Applications for FAA or CAAS approval are intended for civil aeronautical products and articles. Products and articles which are intended only for military use are not eligible for FAA or CAAS validation under the BASA Executive Agreement unless the Authority for the SoD has accepted 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 shall consult to determine whether validation is within the scope of the BASA Executive Agreement and may require a Special Arrangement under Section IX of these Implementation Procedures.

3.1.3 The purpose of validation is to determine that the approval or certificate issued by the CA and compliance with any other requirements the VA may prescribe will provide for an equivalent level of safety or compliance with the VA's environmental and airworthiness requirements.

3.1.4 Close cooperation between the VA and the CA is necessary to provide for effective management of the validation process and for the most effective utilization of resources. Working under the principle that communication should occur between Authorities, correspondence will be answered through and coordinated with the CA. The FAA and the CAAS also recognize that direct communication between the VA and the applicant is sometimes necessary. Direct communication should be limited to technical questions regarding the product (familiarization) and should be conducted with the awareness and consent of the CA. The CA should be informed of the outcome of these discussions.

3.1.5 Applicants are encouraged to seek concurrent certification and validation approvals. Both Authorities may implement concurrent design approval projects covered by the scope of these Implementation Procedures. A type design that satisfies both the VA and the CA requirements is the desired outcome of a concurrent approval process.

3.1.6 The resolution process as provided in paragraph 1.8 will be

used to address any disagreements on the validation process.

3.1.7 Submission of Electronic Data

3.1.7.1 When electronic data is submitted by a Singapore applicant, as described in the Electronic Transactions Act 2010, the applicant is considered to have an arrangement acceptable to the CAAS for the submission and storage of electronic data. The applicant is responsible for the transmission of the electronic data, including any proprietary data, to the FAA, in a format that is compatible with the FAA's information system, under the guidance of the CAAS.

3.1.7.2 When electronic data is submitted by a U.S. applicant, as described in FAA Order 8000.79, the applicant is considered to have an arrangement acceptable to the FAA for the submission and storage of electronic data. The applicant is responsible for the transmission of the electronic data, including any proprietary data, to the CAAS under the guidance of the FAA. Compliance with U.S. export control requirements must be met; reference FAA Order 1240.13.

3.1.8 Certificates and design approvals are accepted or validated by the VA using one of the following three procedures:

3.1.8.1 Acceptance

(a) Acceptance of the CA approval by the VA without issuance of its own approval.

(b) No application for validation is required.

3.1.8.2 Streamlined Validation (SV)

(a) An accepted change by the VA without any technical review, that requires the issuance or change to a VA issued document.

3.1.8.3 Technical Validation

(a) All design approvals not eligible for Acceptance or Streamlined Validation will undergo a Technical Validation.

(b) For Technical Validation, the VA will issue an approval document.

(c) Technical Validation includes:

(1) Full Technical Validation (FTV)

(i) Technical validation of the certificate or change will be performed by the VA.

(ii) The objectives of FTV are for the VA to evaluate compliance with applicable standards, and thereby identify areas in which the CA is considered to be competent. These areas will be applied to future projects under the Limited Technical Validation

process, thereby affecting VA review.

(iii) The ideal scenario for this process is a concurrent certification-validation program to facilitate the VA technical assessment.

(2) Limited Technical Validation (LTV)

(i) Technical Validation of the certificate or change will be performed by the VA using Safety Elements (3.5.3) to define its level of involvement.

(d) The requirement to identify and demonstrate compliance with applicable VA environmental standards is one component of the validation process. The procedures for VA compliance findings to its environmental standards are provided in 3.6.

3.1.9 To determine whether the CA approval will be subject to acceptance or one of three validation processes, the CA will apply the following decision process:

(a) Does the CA approval qualify for Acceptance, as defined in 3.2?

(b) If yes, the VA will follow the Acceptance Procedures in 3.3.

(c) If no, continue to 3.4 to determine the type of validation procedure to follow.

3.2 Acceptance

The FAA and the CAAS conclude that certain approvals can benefit from mutual acceptance. There are specific CA approvals (further described in 3.3) that will be accepted by the VA without issuance of its own approval, and therefore no application for validation is required for:

3.2.1 Design changes, per 3.3.1;

3.2.2 PMA, per 2.2.4
Note: If the PMA is part of an STC or minor design change, the STC or minor change must be validated;

3.2.3 Design data for repairs and alterations per 3.3.3.

3.2.4 The FAA will accept CAAS-approved minor changes to TSO LODA without issuing an additional FAA approval, per 3.3.3.

3.2.5 The CAAS will accept FAA-approved TSO articles, including subsequent design changes, without issuing additional CAAS approval, per 3.3.7.

Note: FAA LODA and CAAS article approval does not constitute an installation approval for the article on an aircraft.

3.3 Acceptance Procedures

The acceptance of the following approvals by the VA is based solely on the CA's approval without the need for submission of an application for validation by the CA. An approval originally granted by the FAA or the CAAS will be automatically accepted

by the other to be implemented under its certification system.

3.3.1 Design Changes by the Design Approval Holder

3.3.1.1 The FAA and the CAAS shall accept the following design changes approved under their respective regulatory system, provided none of the Safety Elements identified in 3.5.3 are applicable, the design changes do not require the CA or the VA to issue a new or revised TC, TCDS, TA, or STC, and the design changes do not qualify as an acoustical or emissions change under 14 CFR section 21.93 or SAR-21 Subpart I:

(a) Minor design changes approved by the FAA (including FAA ODA holders) or the CAAS (including CAAS DOA holders with headquarters registered in Singapore);

(b) Major design changes issued by the TC holder for its product(s) that are of a product, category or class that has been previously accepted/validated by the VA;

(c) Post-STC approval minor design changes issued by the STC holder for its design(s) that has been granted a validated STC by the VA;

Note: any other design change approvals will be validated by the FAA or CAAS following the procedures as stated in paragraph 3.4 of this IPA. An administrative change that does not include a design change to a TC or TCDS shall not be considered a design change that needs validation.

3.3.1.2 The VA may request information through the CA regarding these specific major changes to type design such that the information request itself does not change the validation project classification.

3.3.1.3 No application is required, and the design change is accepted by the VA without any involvement; and

3.3.1.4 These design changes are to be included in the design approval holder's type design for both the CA and VA.

3.3.2 PMA Parts: CAAS shall accept all FAA PMA approvals, without further showing, for modification and/or replacement parts for installation on products accepted by the CAAS, provided the following conditions are met:

(a) part is provided by a vendor listed in the illustrated parts catalogue (IPC) as approved vendor for that particular part; and

(b) part is accompanied by an authorized release certificate (FAA 8130-3) issued by the vendor.

3.3.3 Design Data for Repairs and Alterations

3.3.3.1 Acceptance of Design Data in Support of Repairs

The FAA and the CAAS shall accept the major and minor repair designs approved by the other provided the approval was granted under their respective regulatory system and the repair is not in an area that is subject to an AD. CAAS will accept repair designs by TC holders in an area subject to an AD. The FAA will accept repairs in an area subject to an AD if the FAA AD allows for acceptance of repair design approval.

Note: Repair design approvals not covered under this acceptance will be validated by the FAA or CAAS following the procedures as stated in paragraph 3.4 of this IPA.

3.3.3.2 Acceptance of Design Data in Support of Alterations

FAA approved or accepted alterations in accordance with 14 CFR part 43, installed on a product exported from the U.S., regardless of the SoD of the product, are considered approved by CAAS at the time of import. CAAS shall accept such alteration data when substantiated via an appropriately executed FAA Form 8110-3, 8100-9, 337 (block 3).

3.3.4 Acceptance of Minor Changes to a TSO LODA.

The FAA shall accept minor changes to a TSO LODA, provided that the approval was granted in accordance with CAAS procedures.

3.3.5 TSO Articles

3.3.5.1 General

The CAAS shall accept an FAA TSO authorization, including subsequent design changes, without issuing an additional CAAS approval.

(a) Acceptance will be applicable to all current and future TSO authorizations issued by the FAA. However, articles that are to be installed in Singapore registered aircraft may undergo additional evaluation by the CAAS as necessary.

(b) The TSO authorization is an approved article within the respective FAA system but does not imply installation approval.

3.3.5.2 New articles exported to Singapore having an FAA airworthiness approval will have an FAA Form 8130-3, FAA Authorized Release Certificate (Airworthiness Approval Tag).

3.3.5.3 Acceptance of such articles, under these Implementation Procedures, will be based on the following conditions:

(a) The article meets the applicable TSO's, as evidenced by a statement or declaration of conformity by the TSO authorization; and

(b) If applicable, deviations from the TSO are substantiated and have been approved by the FAA.

3.4 Classification of Applications for Validation

3.4.1 The Authorities have established a risk-based approach influenced by the extent of past certification and operational experience with similar CA products, as well as the specific design features and operational characteristics of the project presented for validation. This risk-based approach establishes the VA level of involvement, according to the project classification as either Streamlined Validation or Technical Validation (which includes FTV and LTV).

3.4.2 The CA shall classify an application for validation according to the following decision process:

3.4.2.1 For products (listed in Section II Table-1 and Table-2), if the application for validation is for a type design or major change in a product, category, or class that has not been previously validated, or subject to a completed technical evaluation effort, the VA may conduct an FTV, following the process outlined in 3.5.

3.4.2.2 For products (listed in Section II Table-1 and Table-2), if the application for validation is for a type design or major change in a product, category, or class that has been previously validated, or subject to a completed technical evaluation effort, the VA shall conduct a review limited to the Safety Elements in 3.5.3.

(a) If one or more of the Safety Elements is applicable, the VA will conduct an LTV, following the applicable process outlined in 3.5.

(b) If none of the Safety Elements is applicable (Accepted Change) but requires a change to a VA issued document, the VA will conduct an SV, following the applicable process outlined in 3.5. If the application is for validation of a TSO LODA, follow the process outlined in 3.9.

3.5 Validation Process

All three validation processes (FTV, LTV, SV) require an application to the VA, a certification statement from the CA to the VA, and issuance of a VA design approval or document. However, the intermediate steps between application and VA approval vary depending on which process is applied. Early coordination with both Authorities is encouraged to facilitate development of scope and timeline of validation projects.

3.5.1 Application (applies to FTV, LTV, and SV)

3.5.1.1 Upon receipt of an application for validation from an applicant, the CA shall send it to the VA after it has verified that:

(a) The product or design change is within the scope of these Implementation Procedures as provided in 2.2;

(b) The product or design change has been issued a TC, TA, or STC by the CA, or an application has been made to the CA; and

(c) The application is not eligible for Acceptance;

Note: In addition to the application to CAAS for the acceptance of the type certificate for the aircraft, a separate application to CAAS for the Letter of Acceptance of Type Certificate for the engine or propeller is required if the application for the engine or propeller type certificate is submitted to the State of Design on or after 10 November 2016.

3.5.1.2 All applications must be submitted by the CA, who will ensure that the package contains the following information, as applicable, and forward this information to the appropriate VA office as listed in Appendix A:

Note: For certain projects some elements of the application package will not be known at the time of application; those applications must include all known data. Missing information will be provided to the VA as it becomes available during the course of the validation project.

(a) Cover letter from the CA identifying the following:

(1) Applicant requested timeline

(2) Application Category Requested:

(i) Concurrent Certification Validation

(ii) Sequential Certification Validation

(3) Validation Classification (see 3.4.2):

(i) Streamlined Validation

(ii) Technical Validation (FTV or LTV);

(b) Completed VA application form;

(c) A copy of the CA's TC and data sheet (if available), or STC or amended TC, that identifies the certification basis upon which the CA's design approval was issued. In the absence of a TC data sheet, the CA will submit the document that defines the certification basis;

(d) The date of the application to the CA;

(e) A description of the product in accordance with the following:

(1) For a TC, descriptive data defined in 14 CFR section 21.15 for applications to the FAA, or SAR-21.110 and advisory circular 21-6 for applications to CAAS;

(2) For a design change, a detailed description of the change, together with the make and model of the changed product;

(f) The CA will list any applicable ADs and provide an assessment that changes to correct the unsafe condition identified in the AD have been incorporated into the type design;

(g) Compliance data and Checklist, including reference to any known applicable VA additional technical conditions, and means of compliance;

Note: For TC validation/acceptance applications, compliance data will be limited to the scope of the VA's review. As for STCs, full compliance data may be provided. However, the VA will adhere to the streamlined or limited technical validation process.

(h) Approved Manuals or changes to Approved Manuals as applicable (see 3.5.9);

(i) Master Drawing List;

(j) Maintenance/Repair Manual Supplements;

(k) Weight and Balance data;

(l) Instructions for Continued Airworthiness;

(m) A description of the criteria that led to the FTV, LTV, or SV project categorization;

(n) Issue Papers raised during the CA's certification activities related to the Safety Elements;

(o) A detailed description of areas impacted by the Safety Elements, in 3.5.3, as applicable to the project;

(p) Information on VA market interest and proposed delivery schedules; and

(q) A CA certification statement, as described in 3.5.11.

3.5.2 Acknowledgement of Application (applies to FTV, LTV, and SV)

3.5.2.1 The VA shall notify the CA within ten working days of receipt of application.

3.5.2.2 The VA shall review the application, confirm whether it is consistent with the validation process identified by the CA (sequential, concurrent, FTV, LTV, SV), and request the CA to send any missing information required for the application within 30 working days of receipt of an application.

3.5.2.3 The VA shall advise the applicant of any applicable fees within 15 working days of receipt of a complete application package.

3.5.2.4 Upon receipt of payment of any applicable fees, the VA shall begin working on the validation project.

3.5.3 Safety Elements Review (applies to LTV and SV projects only)

3.5.3.1 If one or more of the Safety Elements is applicable, the VA shall conduct an LTV.

3.5.3.2 If none of the Safety Elements is applicable (Accepted Change) but the VA is required to issue approval document, the VA shall conduct an SV.

3.5.3.3 The VA shall establish the scope of its technical review based upon the applicability of the following Safety Elements:

(a) Significant Changes –The design change is classified as significant under 14 CFR section 21.101 as applicable. The VA will accept the CA's classification or discuss with the CA potential reclassification of the design change.

(b) New Technology:

Note: New technology is technology that is new to the VA as a whole, not just new to the VA team members. For example, if technology used by the applicant were new to the VA team but not the VA itself, it would not be considered new. It is the VA management's responsibility to make sure the VA team members are properly informed of the earlier use of the technology, VA standards and Means of Compliance (MOC).

(c) Novel Application of Existing Technology:

Note: Novel application of technology is where a particular technology is being used in a manner that causes the precepts of the technology to be questioned. However, it does not mean that existing technology being applied for the first time to a particular product line is automatically novel. Additionally, novel applies to the VA as a whole, not just to the specific VA team members.

(d) The Product Use is Unconventional – A product being used for a purpose for which it was previously not designed for, such as passenger to freighter/tanker conversion.

(e) Potential Unsafe Condition – A potential unsafe condition identified by either Authority that warrants issuing a mandatory continuing airworthiness information (MCAI or AD) for this product or similar per the state of design continuing airworthiness defined processes.

(f) New Methods of Compliance for the Existing Airworthiness Standards – Interpretations/MOC applied by the CA that are different from those already accepted between the CA and the VA.

Note: An interpretation of a method of compliance would not be considered "new" if it had been applied in a similar context by both the VA and the CA.

(g) New VA Standards – When new VA airworthiness standards are adopted and the following apply:

(1) Limited past experience by the CA or VA with their application to a CA product; and

(2) They have an important impact on the whole product or a product's critical feature; and

(3) Engineering judgment is required to establish compliance.

(h) The CA or VA certification basis includes or is anticipated to include a new or amended:

(1) FAA exemption or deviation;

(2) Special Condition; or

(3) Equivalent Level of Safety (ELOS).

(i) Significant Standards Difference (SSD) – Airworthiness standards differences where the standards are substantively different and may result in type design changes (including approved manuals) to meet the airworthiness standards of the VA. SSDs will be identified by the VA based on a comparison of applicable VA and CA standards. If no specific SSD listing is available, this safety element shall not be applied.

(j) Areas of Established Confidence (AEC):

(1) AEC are technical areas consisting of specific airworthiness standards, design features, or technologies identified by the VA in Appendix F. Technical areas not listed in Appendix F will trigger this safety element.

(2) Standards, design features, or technologies listed in Appendix F must be based on either sufficient validation experience or objective evidence gathered from past validation and/or operational experience with similar CA products. That experience should support a need to document established confidence, thereby enabling further reliance on the VA.

(3) The number of technical areas listed in Appendix F are expected to either remain the same or increase as the VA gains validation and/or operational experience with CA articles or products of the same type. When requesting items to be added or removed from the AEC list, the VA/CA must collect and submit objective evidence to the other authority that demonstrates a steady trend showing infrequent or frequent gaps in compliance determinations depending on whether the intent is to add or remove an item.

(4) Changes to Appendix F will require a revision to this IPA

and will be applicable to new applications submitted after the effective date of that revision.

(5) Appendix F as it applies to the FAA, includes all certification regulations and so cannot be increased. As such, this safety element will not be triggered for the FAA until such time that the CAAS provides appropriate evidence to decrease the number of technical areas listed, done by way of the initiation of a revision to the IPA.

(k) Special Emphasis Items – Areas of VA interest for all products of a certain class. These include areas where acceptable methods of compliance, at an industry level, continue to evolve, there is subjectivity in their application, and VA awareness is necessary. The FAA will publish, for public consumption, and periodically update, a list of such generic certification issues for each product class. This list is maintained at: https://www.faa.gov/aircraft/air_cert/design_approvals/product_issues_lists/ In the absence of such a published list, this criterion will not be invoked. CAAS will not maintain a Special Emphasis Items list but instead will accept the FAA Special Emphasis Items for any applicable validation applications.

(l) Acoustical or Emissions Change – A change classified as an acoustical or emissions change per 14 CFR section 21.93.

3.5.4 Streamlined Validation

3.5.4.1 The SV process is limited to the administrative actions required for the VA to issue its design approval based on the corresponding CA approval and a certification statement from the CA to the VA, as described in 3.5.11.

3.5.4.2 SV projects are only managed as sequential projects, in which the CA submits the application to the VA after the CA has completed its certification program, when it is ready to provide a certification statement to the VA as described in 3.5.11.

3.5.4.3 The VA shall issue its design approval based on the CA's statement of compliance with the VA's certification basis and rely on the data provided by the CA, including acceptance of any CA approved manuals provided as part of the application package.

3.5.4.4 Once the VA confirms that the data requirements for the SV process have been met, the administrative review of the application file has been completed, and the applicable design approval documentation has been prepared, the VA shall issue the corresponding design approval or letter of acceptance, as appropriate.

3.5.4.5 The VA shall issue final approval within 35 working days after

acknowledging a complete application (as defined in 3.5.2), and confirmation of payment of any applicable fees.

3.5.4.6 In cases where the applicant chooses to voluntarily adopt into the VA certification basis later amendments to airworthiness or environmental standards than those required as described in paragraph 3.5.9, those later amendments for those standards will be identified in the application.

3.5.5 Technical Validation (applies to FTV or LTV projects only)

3.5.5.1 Technical Validation is intended to allow the VA to:

(a) Have an understanding of the certification of type design, with emphasis on identification of applicable Safety Elements (3.5.3) and Significant Standards Differences (SSD).

(b) Develop and use a Work Plan that incorporates active management oversight to ensure common principles and procedures are applied to maximize reliance on the CA's findings and compliance determinations;

(c) Rely on the CA to conduct compliance determinations to the VA's certification basis as applicable; and

(d) Issue its own design approval based on the CA's design approval, any additional VA SSD's and a statement from the CA that the type design complies with the VA's certification basis.

3.5.5.2 Technical Familiarization

(a) The VA shall use the technical familiarization process to refine and finalize the Work Plan for FTV and LTV projects. Technical familiarization objectives include:

(1) Establishment of the VA certification basis, including identification of any SSDs relative to the CA certification basis.

(2) Establishment of the VA scope of review, limited to the applicable Safety Elements for an LTV project.

(3) Establishment of the VA depth of review, where the VA will review compliance data or if concurrent participate directly in compliance determination activities. For additional data, the CA, VA, and DAH will establish an arrangement for VA to review the data.

(b) The CA shall arrange all technical meetings between the VA, the CA, and the applicant.

(c) The VA shall establish a project validation team if

required for the project.

(d) The technical familiarization is only for the purpose of gaining an understanding of the product type design. The VA shall focus its attention on understanding the general compliance methodologies used or to be used by the applicant, including assumptions, boundary conditions and critical parameters of that methodology to verify the Safety Elements that are impacted, to determine if Issue Papers are necessary, and to update the Work Plan, if needed. Further details, including review of test plans or other compliance documents, test witnessing, or other details of the compliance demonstration are deferred until that depth of review is added to the Work Plan and approved by VA management

(e) Familiarization flights are a unique aspect of technical familiarization because in a concurrent program, they cannot be conducted until late in the project when a flying article is available. In a concurrent LTV project, familiarization flights have the following purposes:

(1) Identify to the CA for resolution any potential compliance issues not previously identified by the validation team in the course of technical familiarization.

(2) Familiarize the VA with the type design as necessary to support operational introduction and continued operational safety of the VA-registered fleet.

(f) VA requests for familiarization flights must be identified in the Work Plan. For sequential projects, there is no guarantee of a test article and flight simulators may be used.

(g) Familiarization flights should be supported by the CA flight test team to facilitate the completion of the objectives described in (e).

3.5.5.3 Depth of Technical Review (applies to LTV projects only):

(a) The depth of VA technical review within each impacted Safety Element is guided by the procedures and principles provided below.

(b) The VA shall rely, to the maximum extent possible, on the CA to make compliance determinations on its behalf. VA justification is required for any VA review of a compliance determination, including the review of any compliance document. This justification normally falls

into the following general areas:

(1) Applicable Safety Elements, when the VA has limited experience in applying those Safety Elements and engineering judgment is required to establish compliance, or

(2) Technical areas not listed in Appendix F, as defined in 3.5.3.3(j).

(3) New or novel features, new MOCs, or novel applications of existing MOCs

Note: Once the VA has accepted a MOC for a given standard on any program with the CA, the expectation is that the VA shall accept that MOC in the future as long as the area is not identified for further confidence building and the assumptions made in the MOC are applicable. An exception is where a past MOC has been determined not to be sufficient. This determination must be discussed between the VA and the CA.

(4) Sensitive issues usually associated with an accident or incident on a product with similar design features.

Note: A compliance document in this context is any test report or other document that directly supports a determination of compliance.

(c) VA review of compliance determinations, including review of any compliance documents, must be identified in the Work Plan along with the associated justification, and approved by VA management.

(d) If the VA, upon completion of its review of a compliance document, finds the document acceptable, the VA shall provide a written statement to the CA verifying that the document is acceptable for demonstration of compliance to the VA certification basis.

3.5.6 Development and Implementation of the Work Plan

3.5.6.1 The VA's level of involvement consists of both the scope and depth of review. Scope identifies what to review. Depth identifies how much to review, and to what level of detail. The level of involvement is documented in the Work Plan.

3.5.6.2 For LTV projects, the VA shall determine the scope of its review using the Safety Elements (3.5.3), as reviewed against the CA application package contents. The VA will determine the depth of its technical review, including review of compliance documents, based on the criteria in 3.5.5.3.

3.5.6.3 For FTV projects, the VA shall determine the scope of its review without being constrained by the Safety Elements.

3.5.6.4 The Work Plan will outline the project, document the VA certification basis, identify significant standards differences that the VA will apply, and list requested meetings and assistance from the CA.

3.5.6.5 The VA shall rely, to the maximum extent possible, on the CA to make compliance determinations on its behalf. The VA may identify the preferred MOC for applicable Safety Elements in the Work Plan.

3.5.6.6 The VA is expected to continue to rely on the CA for previously conducted compliance determinations on future programs, once the CA has successfully demonstrated to the VA that it can find compliance.

3.5.6.7 The Work Plan must be approved by VA management and communicated to the CA for review prior to any validation activities, to ensure support during the validation activities.

3.5.6.8 For LTV projects, if during implementation of the Work Plan the VA determines that involvement is needed in an area not included in the original Work Plan, it must be justified against the same Safety Element criteria (3.5.3) and approved by management.

3.5.6.9 Familiarization flights or familiarization meeting activities, if necessary for issuing the validated/accepted TC/TA/STC or approving a change to a validated/accepted TC/TA/STC, will be documented in the Work Plan.

3.5.6.10 Work Plan Contents

Based on the scope and scale of the project, the Work Plan will include:

(a) Identification of the CA and its applicant;

(b) Date of the CA's application on behalf of its applicant;

(c) VA's office identification and its assigned PM;

(d) Familiarization requirements;

(e) CA certification basis;

(f) VA certification basis;

(g) Applicable Safety Elements per 3.5.3.3;

(h) Validation project milestones that can be used to develop a joint project schedule with the applicant and the CA;

(i) Operational considerations, including applicable Board activities referenced in 3.5.10 and any requested involvement

in review of the COS plan and ICA, if applicable;

(j) Listing of all CA Issue Papers raised during the CA's certification activities related to the Safety Elements. The Work Plan will ultimately document all CA issue papers formally accepted by the VA as applicable to its validation program;

(k) Proposed compliance showings subject to VA verification; and

(l) Technical Support requests.

3.5.6.11 Using and Maintaining the Work Plan

(a) The VA shall develop an initial Work Plan based on a review of the application package (LTV and FTV projects) or after completion of technical familiarization as applicable.

(b) The VA shall provide its Work Plan to the CA and applicant following VA management approval.

(c) The Work Plan will be revised by the VA if, during the course of the validation project, it determines a need to revise the scope or depth of its validation review. Any increase in the scope or depth of review will be approved by the VA at the same level approving the original Work Plan and communicated to both the CA and applicant.

(d) For LTV projects, if Work Plan elements are added during the validation, they must be justified against the same Safety Element criteria (3.5.3).

(e) The VA shall limit its level of review to what is specified in the Work Plan.

3.5.7 Establishment of the VA Certification Basis

3.5.7.1 For the purpose of establishing the VA's certification basis, the applicable VA's airworthiness standards in effect on the date of application (otherwise known as effective application date) by the applicant to the CA for the issuance of a CA design approval will be applied (see exceptions for environmental standards below), in accordance with the VA's regulations and policies.

3.5.7.2 The VA shall review the CA certification basis and identify any significant standards differences, and any additional requirements deemed necessary to meet the VA's airworthiness and environmental standards and as a result of service history and actions taken by either Authority to correct unsafe conditions.

3.5.7.3 Applications for a U.S. TC, or for a design change classified as an emissions change according to 14 CFR section 21.93(c)(d), must comply with the applicable fuel venting and emissions standards as set forth in 14 CFR part 34 and 38.

3.5.7.4 Applications for a U.S. TC, or for a design change classified as an acoustical change according to 14 CFR section 21.93(b), must comply with the applicable noise standards of 14 CFR part 36 in effect on the date of application to the FAA.

3.5.7.5 Applications for a Singapore Letter of Acceptance of Type Certificate, must comply with the applicable emissions standards of SAR-21.755(c) in effect on the date of application to the CA.

3.5.7.6 Applications for a Singapore Letter of Acceptance of Type Certificate, must comply with the applicable noise standards of SAR-21.755(b) in effect on the date of application to the CA.

3.5.8 Use of Issue Papers

3.5.8.1 The VA should avoid duplication of an issue paper on a subject that is already addressed by the CA with which the VA concurs.

3.5.8.2 Issue Papers will be coordinated through the CA to the design approval holder to expedite a timely and mutually acceptable resolution. The VA shall incorporate the CA's and the applicant's position in all Issue Papers originated by the VA.

3.5.8.3 VA intention to raise IPs must be documented in the Work Plan and approved by VA management.

3.5.9 Approved Manuals

3.5.9.1 The CA approves all manuals unless the VA specifies it will do so directly and that intent is documented in the approved Work Plan.

3.5.9.2 If the VA requires changes to the manuals during the validation process, the VA shall communicate to the CA the changes needed, and the approval of the manual will be made by the CA.

3.5.9.3 Changes to manuals required by the VA must be directly related to Work Plan items.

3.5.9.4 Stand-alone changes to approved manuals (i.e., changes that are not associated with physical design changes) will be dealt with as any other design change according to the Acceptance, SV, LTV, or FTV procedures, as applicable.

3.5.10 Evaluation of Operational and Maintenance Aspects

3.5.10.1 Evaluation of U.S. Operational and Maintenance Aspects

(a) [Reserved] Singapore is not a SoD for aeronautical products.

3.5.10.2 Evaluation of Singapore Operational and Maintenance Aspects

(a) The CAAS has established the Flight Standards (FS) division. The FS division is responsible for the operational and maintenance evaluation necessary to support introduction of

products into the CAAS system.

(b) The FS division shall review the following items on U.S. SoD products prior to entry into Singapore operation:

(1) Operational Configuration;

(2) Pilot Training and Licensing Requirements;

(3) Maintenance Personnel Training and Licensing Requirements;

(4) The formulation and approval of a Master Minimum Equipment List (MMEL); and

(5) The formulation and approval of Scheduled Maintenance Requirements, Operational Documents, and Instructions for Continued Airworthiness (other than Approved Manuals required as part of a certification program).

(c) The FS division's evaluation will be initiated by the acceptance of an application for a validation project, following by confirmation of the evaluation items with the applicant as appropriate to the type design.

(d) Compliance with CAAS requirements is required at the time of CAAS issuance of the Letter of Acceptance of TC. To avoid operational suitability problems, applicants are encouraged to complete CAAS requirements early in the project.

3.5.11 Issuance of the Design Approval

Once the VA is satisfied that the Technical Validation process is completed, the Work Plan activities are concluded, compliance with the VA's certification basis has been demonstrated, and confirmation of payment of any applicable fees, the VA shall notify the CA that it is ready to receive the certification statement, in the following form:

"The CA certifies that the {specific product type, model, or STC} complies with the {VA's} certification basis as identified in {Work Plan, Issue Paper, STC, TCDS, etc., as applicable to the project} dated {date}"

3.6 Environmental Compliance Demonstration and Approval Procedures

3.6.1 For the FAA:

3.6.1.1 The FAA is required to make findings of compliance with 14 CFR parts 34, 36, and 38, based upon FAA-witnessed tests conducted in accordance with FAA -approved test plans and based upon FAA review and approval of all data and compliance demonstration reports. In the case of noise certification, a mutual finding of noise compliance has to be made after the FAA and the CAAS resolve any issues raised during the certification process.

3.6.1.2 Information and data must be supplied to the FAA in order to make a finding in accordance with Title 49 of the United States Code, Section 44715 (49 U.S.C. 44715). The FAA, before issuing an original TC for an aircraft of any category, must assess the extent of noise abatement technology incorporated into the type design and determine whether additional noise reduction is achievable. This examination must be initiated as soon as possible after the application for type certification in each original type certification project and reflect noise reduction potentials that become evident during the design and certification process.

3.6.1.3 The National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321 et seq.) requires the FAA to publicly assess and analyze potential environmental consequences of its actions. In order to grant an aircraft type certificate (new, amended, or supplemental) in the absence of noise regulations that are applicable and appropriate to a particular aircraft type, the FAA must prepare an Environmental Assessment, including a decision on whether to prepare a finding of no significant impact or an environmental impact statement. Information and data must be supplied to the FAA in order to prepare the Environmental Assessment. As specified in 14 CFR section 21.93, for the purpose of complying with 14 CFR part 34, each voluntary change in the type design of an airplane or engine that may increase fuel venting or may change the exhaust emissions is an “emissions change,” requiring further demonstration of compliance. Likewise, for the purpose of complying with 14 CFR part 36 and 38, each voluntary change in the type design of an aircraft that may increase the noise levels of that aircraft is an “acoustical change,” requiring further demonstration of compliance. The FAA may choose to make all findings of compliance for acoustical or emissions changes under 14 CFR sections 21.93 (b) and (c), as established in the work plan.

3.6.2 For the CAAS: The CAAS will accept the FAA’s findings of compliance to parts 34, 36, and 38.

3.7 Changes to a Type Design (TC/STC) Affecting Airframe and Engine

3.7.1 The CA must inform VA of all the post-TC validation/acceptance certification design changes incorporated on an aircraft at the point of delivery to facilitate effective management of fleet configuration by the VA.

3.8 Changes to a Type Design (TC/STC) Affecting Noise and Emissions

Noise and Emissions Requirements for Changes to Type Design

3.8.1 Any determination of an acoustical or emissions change, regardless if the type design change is major or minor, requires further demonstration of compliance. The VA shall follow the procedures in 3.6 when making findings of acoustical or emissions change under 14 CFR section 21.93(b) & (c).

3.8.2 A technical substantiation must be provided to the VA to determine whether or not the changes may be considered an acoustic or emissions changes for type design changes that may increase the noise levels of the aircraft or increase fuel venting or exhaust emissions, including, but not limited to, changes that:

3.8.2.1 Have any effect on the performance characteristics of the aircraft, (e.g., drag, weight, lift, power, RPM, etc.);

3.8.2.2 Add or modify any externally radiating noise sources, (e.g. APU operation, fuselage distensions, wing extensions, rigging changes, hollow cavities in landing gear or airframe, etc.); and/or

3.8.2.3 Modify the engine(s), nacelle(s), propeller (s), or rotor system.

3.8.3 Technical substantiation is not required for type design changes that have no possibility of affecting the noise or emissions certification levels.

3.9 Design Approval Procedure for FAA Letter of Design Approval for CAAS

3.9.1 Application Process for an FAA Letter of TSO Design Approval (LODA)

3.9.1.1 An application for an FAA LODA of a TSO article may only be submitted for articles of a kind for which a minimum performance standard has been published in an FAA TSO.

3.9.1.2 The applicant must forward the application package including all applicable technical data listed in 3.9.3.2 to the CAAS.

3.9.1.3 The CAAS shall 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, as specified in the TSO;

(b) If applicable, a request to deviate from the FAA's TSO and substantiation data for FAA approval, or identification of the deviation and evidence of FAA approval;

(c) A statement of conformance to the FAA's TSO from the applicant;

(d) A certifying statement from the CAAS indicating that the article has been examined, tested, and found to meet the FAA's applicable TSO;

(e) Evidence that the article will be imported into the U.S. for installation on a U.S.-registered aircraft or on a U.S. product. The evidence provided must be valid at the time of application in order for the project to be worked promptly. In the absence of evidence of market interest, the application may not be given priority for processing.

3.9.1.4 When the CAAS forwards an application for validation to a TSO which triggers safety element (j), referenced in Section 3.5.3, the CAAS will inform the FAA, who may elect to conduct an additional technical evaluation.

3.9.1.5 The point of contact for FAA LODAs is:

(a) See Appendix A for point of contact.

3.9.1.6 The FAA shall notify the CAAS within ten working days of receipt of application. The FAA shall review the application and request any missing information within 30 working days.

3.9.1.7 For application for validation to a TSO that does not trigger safety element (j), referenced in Section 3.5.3, the FAA will conduct an SV, following the process outlined in 3.9.2.

3.9.2 Streamlined Validation

3.9.2.1 The SV process is limited to the administrative actions required for the FAA to issue the LODA based on the corresponding CAAS STSO certificate of approval and a certification statement from the CAAS to the FAA.

3.9.2.2 SV projects are only managed as sequential projects, in which the CAAS submits the application to the FAA after the CAAS has completed its certification program, when it is ready to provide a certification statement to the FAA.

3.9.2.3 The FAA shall issue the LODA based on the CAAS's statement of compliance with the FAA's certification basis and rely on the data provided by the CAAS, including acceptance of any CAAS approved manuals provided as part of the application package.

3.9.3 Issuance of the FAA LODA

3.9.3.1 The FAA may issue a LODA after:

(a) Receipt of all the items identified in 3.9.1.3;

(b) Conducting a review of the data/documentation specified in the FAA TSO (for non-SV);

(c) Receipt and review of other specific technical data, as jointly

determined between the CAAS and the FAA, needed to demonstrate compliance with the FAA's TSO; and

(d) Approval of all proposed deviations to the FAA's TSO.

3.9.3.2 The FAA will forward the LODA to the applicant, copying CAAS.

3.9.4 Procedure for Changes to a TSO LODA by the Design Approval Holder

3.9.4.1 Minor changes to a TSO LODA are considered approved by the CAAS and accepted by FAA without further evaluation or approval according to the procedures in 3.3.6.

3.9.4.2 Major changes to a TSO LODA are processed as a new LODA application, per the procedures in 3.9.1.

3.10 Acceptance of Non-TSO Functions

3.10.1 The VA shall accept, without further validation, data on non-TSO functions where those functions are integrated into an existing or proposed article when:

3.10.1.1 The non-TSO functions included in the article have been shown not to interfere with the TSO functions and not to interfere with the ability to comply with the TSO;

3.10.1.2 The non-TSO functions are covered under the CA TSO System approval holder's quality system.

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

3.10.3 If requested by the authority overseeing the installation of a TSO article, the CA and VA shall cooperate and provide technical support for the evaluation of non-TSO functions at the product level before granting TSO approval.

SECTION IV CONTINUED AIRWORTHINESS

4.1 General

4.1.1 In accordance with ICAO Annex 8, the SoD is responsible for resolving in-service safety issues related to design or production. The CA, as the Authority of the SoD, shall provide applicable information necessary for mandatory modifications, required limitations and/or inspections to the other Authority to ensure continued operational safety of the product or article. Each Authority shall review and normally accept the corrective actions taken by the CA in the issuance of its own mandatory corrective actions.

4.1.2 At the request of the VA, the CA shall assist in determining what action is necessary for the continued operational safety of the product or article. The VA, as Authority of the SoR, retains sole Authority for decisions on final actions taken for products or articles under its jurisdiction. The VA has discretionary authority to seek information from the CA, which includes, but is not limited to, design data and findings of compliance, when such requests are needed to support resolution of COS concerns. The FAA and the CAAS shall strive to resolve differences.

4.1.3 The FAA and the CAAS recognize the importance of the 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 shall share relevant fleet service data with each other to assist in their respective COS oversight.

4.1.4 Once the design is validated, the CA shall inform the VA of the issuance of any MCAI or AD, as necessary, to ensure continuing airworthiness of the product registered in the jurisdiction of the importing State.

4.1.5 The FAA and CAAS shall ensure the currency of their COS point of contact information by maintaining it on ICAO Circular 95.

4.1.6 The FAA and CAAS, when functioning as the SoR, shall ensure that there exists a system whereby information on faults, malfunctions, defects and other occurrences that cause or might cause adverse effects on the continuing airworthiness of the aircraft is collected and transmitted to the CA responsible for the type design of that aircraft.

4.1.7 The FAA and the CAAS shall ensure active communication between specific focal points, for regular feedback and communicating continuing airworthiness issues on products certified by either the FAA or the CAAS and validated by the other. The extent of this engagement will reflect the continuing airworthiness activities associated with the product.

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

4.2.1 The FAA and the CAAS shall perform the following functions for the products and articles for which it is the CA:

4.2.1.1 Tracking of FM&D reports/SDR and accident/incidents;

4.2.1.2 Evaluating FM&D reports/SDR and accident/incidents;

4.2.1.3 Investigating and resolving all suspected unsafe conditions; and

4.2.1.4 Advising the other Authority of all known unsafe conditions and the necessary corrective actions (see 4.3);

4.2.1.5 Upon request, providing the other Authority with the following:

(a) Reports of FM&D/SDR and accidents/incidents;

(b) Status of investigations into FM&D/SDR and accidents/incidents when permissible; and

(c) Summary of FM&D/SDR investigation findings and conclusions.

4.2.1.6 Making a reasonable effort to resolve issues raised by the other Authority concerning matters of safety for products registered in their State.

4.2.2 The FAA and the CAAS, as Authorities for the SoR, shall perform the following functions:

4.2.2.1 Advising the CA of FM&D/SDR and accidents/incidents which are believed to be potentially unsafe conditions;

4.2.2.2 Supporting the CA in investigations of unsafe conditions and their occurrences; and

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

4.2.3 For COS issues related to investigations of Safety Recommendations, Service Difficulty Reports, accidents, or incidents on the imported products, parts, or articles, the Authority for the SoR can directly request information from the design approval holder after informing the CA of the investigation.

4.2.4 Service Difficulty, Quality Escapes, and Suspected Unapproved Parts Investigation Information Requests:

4.2.4.1 When either the FAA or the CAAS needs information for the investigation of service difficulty, quality escapes, 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 Authority. In turn, upon receipt of the request for information, the export authority will ensure that the requested information is provided in a timely manner.

4.2.4.2 The FAA and CAAS shall establish individual focal points to respond to each other's questions and ensure that timely communication occurs.

4.2.5 The FAA or CAAS may request information directly from a manufacturer if immediate contact with the appropriate focal points cannot be made. In such cases, notification of this action will be made as soon as possible. Either the FAA or the CAAS, as applicable, will assist in ensuring that their manufacturer provides requested information expeditiously. Copies of FM&D/SDR reports from the United States and Singapore are available through the addresses listed in Appendix A.

4.3 Unsafe Condition and Mandatory Continuing Airworthiness Information (MCAI)

4.3.1 The FAA (under 14 CFR part 39) and the CAAS (under the Air Navigation Act) shall perform the following functions for the products, articles, and design changes for which they are the CA:

4.3.1.1 Issue an MCAI (e.g., AD) whenever the Authority determines that an unsafe condition exists in a product or article and is likely to exist or develop in a product or article of the same type design. This may include a product that has an aircraft engine, propeller, or article installed on it and the installation causes the unsafe condition.

4.3.1.2 Issue a revised or superseding AD when determined that any previously issued AD was incomplete or inadequate to fully correct the unsafe condition.

4.3.1.3 Provide timely notification to the VA of the unsafe condition and the necessary corrective actions by providing a copy of the AD at the time of publication to the address referenced in Appendix A. Additionally, upon request by the VA, the CA will forward copies of all relevant service bulletins referenced in the MCAI, as well as other supporting documentation, to the appropriate focal point in the FAA or to the CAAS, as appropriate.

4.3.1.4 In the case of emergency airworthiness information, ensure special handling so that the other Authority is notified immediately.

4.3.1.5 Advise and assist the VA in defining the appropriate actions to take in the issuance of its own AD.

4.3.1.6 Maintain a web-based database of ADs accessible to the VA.

4.3.2 The FAA and the CAAS recognize that they may disagree as to the finding of an unsafe condition by the other (as the CA) and propose additional mandatory requirements. Such action should only be taken based on safety related reasons after prior consultation with the CA and advance notification of implementation.

4.3.3 The FAA and the CAAS, as VAs, shall respond quickly to the issuance of an MCAI by the CA and adopt the mandatory information directly or assess the information received to address all unsafe conditions and take appropriate action.

4.3.4 The FAA and the CAAS, as the CA, shall share information on any changes that affect operating limitations, life limits, or any other airworthiness limitation, to include manual changes and changes to certification maintenance requirements. These changes should be promptly sent to the VA in order to ensure the continued operational safety of the aircraft. The FAA and the CAAS may treat a reduced life limit as an unsafe condition and will accordingly issue an AD. The FAA and the CAAS may also issue an AD for other limitation changes if they are considered an unsafe condition.

4.4 Alternative Methods/Means of Compliance (AMOC) to an Airworthiness Directive (AD)

4.4.1 If the CA issues an AMOC of general applicability to an existing AD for its own SoD products/articles, the CA shall notify the VA of the decision.

4.4.2 Upon request, the CA shall provide sufficient information to the VA for its use in making a determination as to the acceptability of the AMOC. Based on this information, the VA will either accept the AMOC issued by the CA or issue its AMOC approval for the operators in their State.

4.5 Aircraft, engine or propeller airworthiness engineering support

4.5.1 The FAA or the CAAS, when functioning as the SoR, may request for assistance from the other authority, who is the SoD or SoDM, in the review and approval of engineering instructions issued by a design approval holder of the SoD or SoDM, that are not approved under the SoD or SoDM's system (e.g., aircraft manufacturer's engineering analysis supporting the deferment of aircraft maintenance tasks).

SECTION V ADMINISTRATION OF DESIGN APPROVALS

5.1 General

This section addresses procedures for the transfer, surrender, revocation, suspension, termination, or withdrawal of design approval.

5.2 Transfer of TCs/TAs and STCs

The regulatory requirements for certificate transfers are equivalent in the U.S. and Singapore. The U.S. and Singapore regulations allow the transfer of a TC /STC followed by notification to the FAA/CAAS. Early coordination with both Authorities is encouraged.

The FAA and the CAAS shall administer the transfer of TCs/STCs only when an applicant assumes responsibility for both a U.S. and Singapore TC/STC and the affected operating fleet. The following paragraphs outline the procedures for TC/STC transfers.

5.2.1 Transfer of a TC/STC with a change in SoD/SoDM

5.2.1.1 Both Authorities must confirm the transfer of the SoD/SoDM responsibilities per ICAO Annex 8.

5.2.1.2 Early coordination between the current TC/STC holder and its Authority, together with the proposed TC/STC holder and its Authority is essential. The transferring Authority shall notify the receiving Authority of the proposed transfer and include information about current production status. All information related to the transfer of a TC/STC, including technical documentation, will be in the English language.

5.2.1.3 Upon notification of a change in ownership of a TC/STC holder to a new holder in the State of the receiving Authority, the transferring Authority's responsible office shall notify the receiving Authority's responsible office listed in Appendix A. An arrangement may be developed to identify each Authority's responsibilities throughout the transfer process.

5.2.1.4 The transferring Authority shall transfer to the receiving Authority the ICAO SoD/SoDM responsibilities for TCs and STCs within the scope of these Implementation Procedures. The receiving Authority shall not assume ICAO SoD/SoDM functions for models or design changes not found to meet its certification requirements.

5.2.1.5 If the receiving Authority does not already have a corresponding TC/STC, the new design approval holder will have to apply to the receiving Authority for a new TC/STC. The transferring Authority shall provide support to establish acceptance of the receiving Authority's TC/STC as showing compliance with the applicable certification requirements of the receiving Authority. This would include providing a statement of compliance that the product meets the certification

requirements of the new SoD/SoDM (receiving Authority). Upon acceptance, the receiving Authority shall issue its TC/STC.

5.2.1.6 If the receiving Authority already has a corresponding TC, but that TC does not include all of the transferred models, the transferring Authority shall, if requested, provide support to establish acceptance of the additional model(s) as showing compliance with the applicable certification requirements. This support would include providing a statement of compliance that the model(s) meets the certification requirements of the new SoD (receiving Authority). Upon acceptance, the receiving Authority shall place the additional model(s) on its TC.

5.2.1.7 For STCs, the applicability of an STC issued by the receiving Authority shall only include those models for which a TC was issued/accepted by the receiving Authority.

5.2.1.8 The transfer of the ICAO SoD/SoDM responsibilities for the TC/STC to the receiving Authority is complete when the receiving Authority confirms all necessary data is transferred to the new holder, and the new holder is able to perform the responsibilities required of a design approval holder.

5.2.1.9 If requested by the approval holder, the transferring Authority shall issue a validated TC/STC after the receiving Authority issues its TC/STC.

5.2.1.10 If the new SoD's TC only covers a partial list of models from the transferring Authority's original TC and the new holder does not apply for approval of those additional models, the existing holder shall continue to hold the data for those additional models and the transferring Authority shall continue to fulfill its SoD responsibilities for those additional models.

5.2.1.11 Upon transfer, or a mutually confirmed date, the receiving Authority, in carrying out SoD/SoDM functions, shall comply with the requirements of ICAO Annex 8 for affected products. For TCs/STCs, the receiving Authority shall notify the transferring Authority and all affected ICAO Contracting States (i.e., States of Registry) of the change in SoD/SoDM responsibility and identify the new TC/STC holder, upon completion of all applicable procedures described above.

5.2.2 Transfer of TCs and STCs with no change in SoD/SoDM

5.2.2.1 Where there is no change in the SoD/SoDM, the CA shall notify the VA when a TC/STC validated by the VA is successfully transferred to a new design approval holder within the country of the CA.

5.2.2.2 The CA shall provide the VA with a statement confirming the ability of the new holder to fulfill the regulatory responsibilities

assigned to a design approval holder. The CA shall assist the VA in facilitating the reissuance of the validated TC/TA/STC to the new holder.

5.2.2.3 The VA, upon completion of its review, shall issue a TC/TA/STC in the name of the new design approval holder, and notify the CA accordingly.

5.2.3 Transfer of TCs and STCs to a Third State

5.2.3.1 When a TC or STC that has been validated/accepted by the FAA/CAAS is transferred to a third State, the CA shall notify the VA prior to the transfer and provide any necessary assistance including the sharing of technical information to the VA as required. Early collaboration is crucial prior to processing such a transfer. Upon completion of the transfer, the CA shall notify the VA of the change in SoD/SoDM responsibility and identify the new TC/STC holder.

5.3 Surrender of TCs or STCs

5.3.1 If a certificate holder elects to surrender a TC or STC issued by the FAA or CAAS, which has been validated/accepted by the other Authority, the FAA or CAAS shall immediately notify the other authority in writing of the action at the address listed in Appendix A.

5.3.2 The FAA and CAAS, as the CA, shall accomplish all actions necessary to ensure continued airworthiness of the product until such time as:

5.3.2.1 A new TC or STC for the product is issued as part of the full TC process with a new application since the surrendered TC or STC cannot be reissued to a third party or a former holder; or

5.3.2.2 The FAA or CAAS terminates the TC or STC. Prior to termination, the FAA or CAAS shall notify the other Authority of the pending action.

5.4 Revocation or Suspension of TCs/TAs or STCs

5.4.1 In the event that either Authority revokes or suspends a TC or STC of a product manufactured for which it is the CA, that Authority shall immediately inform the other, if the TC or STC has been accepted or validated by the VA. The VA, upon notification, shall conduct an investigation to determine if action is required. If the revocation or suspension was for cause, and the VA concurs with the CA's certificate action, the VA shall initiate revocation or suspension of its TC or STC.

5.4.2 Alternatively, the VA may decide to assume continued airworthiness responsibilities if there is sufficient information for it to support the continued operational safety of the fleet within its jurisdiction. In this case, the CA should obtain and provide

type design data as requested to the VA. Final certificate action is at the sole discretion of the VA.

5.4.3 Either Authority may revoke its TC or STC if the continued airworthiness responsibilities would cause an undue burden for that Authority.

5.4.4 If either Authority revokes its TC or STC of a product manufactured for which it is the CA, that authority shall immediately inform the other.

5.5 Termination

5.5.1 In the event that one authority terminates a design approval, the information will be communicated between the FAA and the CAAS on a case-by-case basis.

5.6 Surrender or Withdrawal of a TSO Design Approval

5.6.1 Surrender

If an FAA TSO authorization holder, FAA LODA holder, or CAAS STSO certificate of approval holder, elects to surrender their TSO authorization, LODA, or STSO certificate of approval issued by the FAA or the CAAS respectively, the FAA or the CAAS shall immediately notify the other in writing of the action. The CA shall inform the VA when an unsafe condition is identified, until the approval is formally withdrawn by the CA.

5.6.2 Withdrawal

If a TSO approval is withdrawn, the FAA or the CAAS shall immediately notify the other in writing of the action. The CA shall inform the VA when an unsafe condition is identified. In the event of withdrawal of a TSO approval for non-compliance, the CA shall investigate all non-compliances for corrective action and notify the VA of the corrective action. The CA still has the responsibility for the continuing 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 produced in the U.S. or Singapore and exchanged under the provisions of these Implementation Procedures will be produced in accordance with an approved production quality system that ensures conformity to the approved design and ensures that completed products and articles are in a condition for safe operation.

6.1.2 Surveillance of Production Approval Holders

6.1.2.1 The FAA and CAAS as authorities for SoM, shall conduct regulatory surveillance of production approval holders and their suppliers in accordance with each Authority's applicable regulations, policies, practices, criteria, and/or procedures. Scheduled evaluations or audits 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 Authority for the SoM should verify the correction of all deficiencies.

6.1.2.2 The FAA's production approval holder and supplier surveillance programs are described in FAA Order 8120.23, Certificate Management of Production Approval Holders.

6.1.2.3 The CAAS's production organization approval holder and supplier surveillance programs are described in CAAS SAR-21 Subpart J.

6.2 Extensions of Production Approvals

6.2.1 As the Authority of the SoM, the FAA and the CAAS may authorize production approval extensions, to include manufacturing sites and facilities in each other's countries or in a third State. For the FAA, such extension authorizations shall be issued only to existing production approval holders within the U.S. This assures a clear line of sight to the SoM, in compliance with ICAO Annex 8 State/CAA roles and responsibilities. The Authority for the SoM remains responsible for the surveillance and oversight of these manufacturing sites and facilities. Therefore, the Authority must not authorize production approval extensions to sites and facilities located in a third State for which it does not have legal or territorial jurisdiction to accomplish full surveillance and oversight.

6.2.2 Each Authority for the SoM is responsible for surveillance and oversight of its production approval holders' operations located within the jurisdiction of the other Authority. Routine surveillance and oversight may be performed by the FAA or the

CAAS on the other's behalf through the provisions of Section VIII.

6.2.3 Either Authority for the SoM may seek assistance with regulatory surveillance and oversight functions from the Civil Aviation Authority (CAA) of a third State when a production approval is granted or extended. The SoM Authority should seek assistance only when a bilateral arrangement for technical support has been formalized between the FAA or CAAS and the CAA of the third State.

6.3 Production Approvals Based on Licensing Agreement

6.3.1 The Authorities 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 Authorities shall work together to develop an arrangement defining their regulatory responsibilities to ensure accountability under ICAO Annex 8. Such arrangements will address the responsibilities of the SoD and the SoM and shall be documented in accordance with Section IX of these Implementation Procedures.

6.3.2 For products and articles, either Authority may grant a production approval in its respective State 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 Authority's State, or in a third State, to manufacture that product or article. In this case, the Authority granting that production approval should have already issued a validated design approval and ensure the establishment of adequate manufacturing processes and quality control procedures to assure that each part conforms to the approved licensed design data. Procedures must ensure that all changes introduced into the design by the production approval holder are approved. These design changes are submitted to the design approval holder who shall obtain approval from its Authority using established procedures. Production approvals based on a licensing agreement covered under the scope of these Implementation Procedures will require a Management Plan. For those not covered under the scope of these Implementation Procedures, a Special Arrangement and Management Plan may be required, in accordance with Section IX, Special Arrangements and Management Plans.

6.3.3 For any TC/PC split, the FAA and CAAS shall follow the following steps:

6.3.3.1 Applicant to notify both Authorities

6.3.3.2 Both Authorities to communicate and determine that the request is appropriate

6.3.3.3 SoM to issue the PC

6.3.3.4 CA to update TCDS and VA to update TCDS by adding new production approval holder

6.3.3.5 Both Authorities to formulate a Management Plan

6.4 Supplier Surveillance – Outside the State of Manufacture (SoM)

6.4.1 The Authority for the SoM shall include in its regulatory surveillance and oversight programs a means of surveillance of persons/suppliers located outside its State. This surveillance and oversight will be equivalent to the program for domestic suppliers. This surveillance activity will assist the Authorities in determining conformity to approved design and if articles are safe for installation on type certificated products.

6.4.2 Each Authority for the SoM is responsible for surveillance and oversight of its production approval holders' suppliers located in the other State's jurisdiction. Routine surveillance and oversight may be performed by the other Authority through the provisions of Section VIII.

6.4.3 Either Authority may request that the other Authority conduct regulatory surveillance on its behalf for facilities located within the other Authority's country. The assisting Authority may either use its own policies, practices, and procedures or those of the requesting Authority. Details of this assistance will be documented in a Management Plan.

6.4.4 The SoM Authority may seek assistance with regulatory surveillance oversight functions from the CAA of a third State in which the supplier is located, and only when an agreement/arrangement for this purpose has been formalized between the FAA or the CAAS and the CAA of the third State.

6.4.5 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 CAA, 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.

6.5 Multi-National Consortia

6.5.1 Approvals may be issued to multi-national consortia for the design and production of products or articles in either the U.S. or Singapore. These consortia clearly designate one SoD and one SoM, for the purposes of regulatory accountability. There

may be domestic and international suppliers to the approval holder(s) that produce parts for use in the final product.

6.5.2 The FAA and the CAAS shall continue to conduct regulatory surveillance and oversight of the domestic design and production approval holder and should emphasize surveillance and oversight of parts suppliers. Each Authority shall use its regulatory surveillance and oversight programs that best enable it to ensure the consortia suppliers are producing parts 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 and the CAAS for completed aircraft. Authorized Release Certificates (Airworthiness Approval Tags), or equivalent (CAAS Form CAAS(AW)95) are issued by the FAA and the CAAS for aircraft engines, propellers, and articles.

7.1.2 The FAA's requirements and procedures for import of aeronautical products are described in 14 CFR part 21, FAA Order 8130.2, and Advisory Circular (AC) 21-23. The CAAS's requirements and procedures for import are described in CAAS Singapore Airworthiness Requirement (SAR).

7.1.3 The FAA's requirements for issuing export airworthiness approvals are contained in 14 CFR part 21, FAA Order 8130.2, FAA Order 8130.21, and FAA Advisory Circular (AC) 21-2. The CAAS's requirements for issuing export certificates are described in the Air Navigation Order (ANO) and SAR Chapter 2.4 and in the ANR-42 which will supersede the ANO and the SAR when published.

7.2 New or Used Aircraft Exported for which a Design Approval Has Been Granted

7.2.1 Except as provided in 7.6, the Importing Authority (IA) shall accept an Export Certificate of Airworthiness on new aircraft and on used aircraft (including the case of those products that are designed or manufactured in a third State when that country has a bilateral agreement/arrangement with both the FAA and the CAAS covering the same product), only if a TC holder exists to support continuing airworthiness of such aircraft, identified in 2.2.2, when the Exporting Authority (EA):

For all aircraft:

7.2.1.1 Certifies that it is in a condition for safe operation, including compliance with applicable EA ADs;

7.2.1.2 Certifies that it conforms to a type design approved by the EA (including all applicable STCs);

7.2.1.3 Certifies that it meets all additional requirements prescribed by the IA in 7.8, as notified;

7.2.1.4 Lists on the Export CofA any known exceptions to IA requirements

For new aircraft, in addition to the requirements for all aircraft:

7.2.1.5 Has undergone a final operational check

For used aircraft, in addition to the requirements for all aircraft:

7.2.1.6 Has been properly maintained using approved procedures and methods throughout its service life to the requirements of an approved maintenance program as evidenced by logbooks and maintenance records; and

7.2.1.7 Has records that verify that all overhauls, major changes and repairs were accomplished in accordance with approved data.

7.2.2 Each aircraft imported to the United States or Singapore shall have an Export Certificate of Airworthiness that should contain information equivalent to the following statement: “The [INSERT AIRCRAFT MODEL, AND SERIAL NUMBER] covered by this certificate conforms to the type design approved under EA Type Certificate Number [INSERT TC NUMBER and TCDS REVISION LEVEL], and is found to be in a condition for safe operation,” and any other clarifying language as specified in the TCDS. In addition, for aircraft to be imported to the U.S. or Singapore, the Export Certificate of Airworthiness should list all STCs, and field approval documents incorporated in the particular aircraft. Under certain conditions, the IA may decide that an Export Certificate of Airworthiness is not required for used aircraft.

7.2.3 When a U.S. SoD or SoM used aircraft is to be imported from a third State into the U.S. or Singapore, the FAA, as the SoD or SoM Authority shall, upon request by CAAS, assist in obtaining information regarding the configuration of the aircraft at the time it left the manufacturer. The FAA shall also provide, upon request, information regarding subsequent installations on the aircraft that it has approved, if any.

7.2.4 The use of a manufacturer’s statement of conformity is acceptable for establishing the conformity status of an aircraft when manufactured, even in the absence of an endorsement of that statement by the CAA of the State of Design or State of Manufacture, or its technical agent. For used, imported aircraft, this paragraph takes precedence over any statement in a U.S. Type Certificate Data Sheet that requires a statement of conformity from the State of Design/Manufacture.

7.2.5 If a used civil aircraft produced in the U.S. originally certificated for civilian purpose and later modified for military use in either country at any time, the EA will consult with the IA to determine if they will accept such an aircraft. A used aircraft originally certificated and manufactured in accordance with the requirements of the Armed Forces of the U.S. or Singapore and later modified for civilian use is not eligible for export under these Implementation Procedures, unless it has been

subsequently certificated to meet the EA's airworthiness and environmental requirements applicable to civil aircraft.

7.2.6 Acceptance of Used Aircraft Being Exported (Returned) to the original SoD

7.2.6.1 The FAA shall accept an Export Certificate of Airworthiness on a used aircraft being exported (returned) when U.S. is the original SoD for the aircraft, and when the conditions of 7.2.1 have been met.

7.2.6.2 If CAAS is not in a position to assess whether or not the used aircraft satisfies the above conditions, it shall inform the FAA accordingly.

7.2.7 Acceptance of Used Aircraft for which a Third State is the SoD

7.2.7.1 The IA shall accept Export Certificates of Airworthiness or equivalent airworthiness approval documents from the EA for used aircraft for which a third State is the SoD.

7.2.7.2 For used aircraft being imported from Singapore to the U.S., or from the U.S. to Singapore, the conditions of 7.2.1 must be met.

7.2.7.3 If the EA is not in a position to assess whether or not the used aircraft satisfies the above conditions, it shall inform the IA accordingly.

7.3 New and Rebuilt Aircraft Engines and New Propellers Exported to the U.S. or Singapore

7.3.1 Except as provided in 7.7, the IA shall accept the EA's Authorized Release Certificates, or equivalent, certifying that each new and rebuilt aircraft engine or new propeller identified in 2.2.3 exported to the U.S. or Singapore meets the following requirements:

For all aircraft engines and propellers:

7.3.1.1 Is in a condition for safe operation, including compliance with applicable EA ADs;

7.3.1.2 Conforms to a type design approved by the EA, as specified in the EA's TCDS/TADS, and any additional STCs accepted by the IA;

7.3.1.3 Meets all additional requirements prescribed by the IA in 7.8.

For new aircraft engines and propellers, in addition to the requirements for all aircraft engines and propellers:

7.3.1.4 Has undergone a final operational check;

For used aircraft engines and propellers, in addition to the requirements for all aircraft engines and propellers:

7.3.1.5 For rebuilt aircraft engines being exported to Singapore from the U.S., that the aircraft engine has been rebuilt by the production approval holder and the Total Time Since New (TTSN) is specified in both the technical record of the aircraft engine and the accompanying Authorized Release Certificate, or equivalent.

7.3.2 Each new aircraft engine and propeller exported shall have an Authorized Release Certificate, or equivalent, that identifies the EA's approved design data.

7.3.3 For new aircraft engines and propellers, the Authorized Release Certificate, or equivalent, should contain information equivalent to the following statement: "The [INSERT AIRCRAFT ENGINE OR PROPELLER MODEL AND SERIAL NUMBER] covered by this certificate conforms to the type design approved under the EA's TC Number [INSERT TYPE CERTIFICATE NUMBER, REVISION LEVEL, AND DATE], and is found to be in a condition for safe operation and has undergone a final operational check," and any other clarifying language as specified in the EA's TCDS/TADS.

7.4 TSO Articles

Under the provisions for TSO articles as detailed in Section III, the IA shall accept the EA's Authorized Release Certificate, or equivalent, for articles only when the EA certifies that the article:

7.4.1 Conforms to the EA's TSO Design Approval or equivalent, including any accepted non-TSO functions (see 3.9), as applicable;

7.4.2 Complies with all applicable EA ADs; and

7.4.3 Meets all additional requirements prescribed by the IA in VII.8, as notified.

7.5 Modification and Replacement Parts

7.5.1 Each exported part shall have an EA's Authorized Release Certificate or equivalent. The IA shall accept the EA's Authorized Release Certificates, or equivalent, on modification and/or replacement parts as identified in II.2.3 only when the EA certifies by issuance of an Authorized Release Certificates, or equivalent, that each part:

7.5.1.1 Conforms to the EA's applicable approved design data and is in a condition for safe operation; and

7.5.1.2 Meets all additional requirements prescribed by the IA in 7.8, as notified.

7.5.2 When parts are shipped under direct ship authorizations, the accompanying EA's Authorized Release Certificate, or

equivalent documentation, must indicate that the responsible manufacturing/production approval holder has authorized direct shipment. This indication may be a supplemental “remark” entry on the Authorized Release Certificate, or equivalent, indicating the authorization to the supplier for direct shipment of parts from the supplier’s location.

7.6 Coordination of Exceptions on an Export Certificate of Airworthiness

7.6.1 The EA shall notify the IA prior to issuing an Export Certificate of Airworthiness when non-compliance with the EA’s approved type design is noted on the exporting approval document. This notification should help to resolve all issues concerning the aircraft’s eligibility for an airworthiness certificate.

7.6.1.1 FAA: For new aircraft, this notification is sent to the responsible FAA office listed in Appendix A. For used aircraft, this notification is sent to the responsible FAA Flight Standards District Office (FSDO) available online at www.faa.gov.

7.6.1.2 CAAS: For new and used aircraft exported to Singapore, this notification is sent to the Flight Standards division as detailed in Appendix A.

7.6.2 In all cases, a written acceptance of the exceptions from the IA is required before the issuance of the EA’s Export Certificate of Airworthiness. A copy of this written acceptance shall be included with the export documentation. This Acceptance does not negate the IA requiring the rectification of these exceptions prior to the issuance of the Certificate of Airworthiness.

7.7 Coordination of Exceptions on an Authorized Release Certificate

7.7.1 The EA shall notify the IA prior to the issuance of an Authorized Release Certificate for an aircraft engine, propeller, TSO, or PMA article when non-compliance with the EA approved design is noted in the “Remarks” block of the Authorized Release Certificate. This notification should help resolve all issues regarding the aircraft engine, propeller, or TSO, or PMA article’s installation eligibility.

7.7.2 This notification is sent to the FAA responsible office or the CAAS Flight Standards division as detailed in Appendix A, as applicable. In all cases, a written acceptance from the IA is required before the issuance of the EA’s Authorized Release Certificate. A copy of this written acceptance shall be included with the export documentation.

7.8 Additional 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 Singapore, for use on a U.S.-registered aircraft or Singapore-registered aircraft, respectively:

7.8.1 Identification and Marking

7.8.1.1 For U.S., imported aircraft, aircraft engines, propellers and articles must be identified in accordance with the applicable subpart of 14 CFR part 45. Identification plates should have the manufacturer's legal name or as it appears in the approved data of the type design;

7.8.1.2 For Singapore:

(a) imported aircraft must be identified as required in the Singapore Air Navigation Order (ANO) First Schedule;

(b) imported aircraft engines and propellers must be identified in accordance with 14 CFR part 45;

(c) 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.

7.8.2 Instructions for Continued Airworthiness (ICA)

ICA and maintenance manuals having airworthiness limitation sections must be provided by the type certificate holder as prescribed in 14 CFR section 21.50.

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

Each aircraft must be accompanied by an approved 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.

7.8.4 Logbooks and Maintenance Records

Each aircraft (including the aircraft engine, and propeller) must be accompanied by logbooks and maintenance records equivalent to those specified in 14 CFR section 91.417 for U.S.-registered aircraft and CAAS ANR-91 Division 7 for Singapore-registered aircraft. The maintenance records must also show that, for a used aircraft, that aircraft has had a 100-hour inspection, or equivalent, as specified in 14 CFR section 21.183(d) for U.S.-registered aircraft. For Singapore registered aircraft, CAAS requires the inspection and maintenance records that include but are not limited to:

7.8.4.1 The original or certified true copy of the Export Certificate of Airworthiness issued by the FAA;

7.8.4.2 Records that ensure that all overhauls, major changes, and major repairs were accomplished in accordance with approved data; and

7.8.4.3 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.

SECTION VIII TECHNICAL SUPPORT BETWEEN AUTHORITIES

8.1 General

8.1.1 Upon request and after mutual consent and as resources permit, the FAA and the CAAS may provide technical support to each other when significant activities are conducted in either the U.S. or Singapore. Technical support includes clarification with industry on the recognition of approvals, including export and authorized release certificates, issued by the other Authority.

8.1.2 Every effort should be made to have these certification tasks performed locally on each other's behalf. These technical support activities will help with regulatory surveillance and oversight functions at locations outside of the requesting Authority's country. These supporting technical support 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 support to the other, unless other Special Arrangements are established. Types of assistance may include, but are not limited to, the following:

8.1.3.1 Design Certification Support

(a) Approving test plans;

(b) Witnessing tests;

(c) Performing conformity inspections;

(d) Reviewing reports;

(e) Obtaining data;

(f) Verifying/determining compliance;

(g) Monitoring the activities and functions of designees or approved organizations; and

(h) Conducting investigations of service difficulties.

(i) Production Certification and Surveillance Support

(j) Witnessing conformity inspections;

(k) Witnessing the first article inspection of parts;

(l) Monitoring the controls on special processes;

(m) Conducting sample inspections on production parts;

(n) Monitoring production certificate extensions;

(o) Monitoring the activities and functions of designees or approved organizations;

(p) Conducting investigations of service difficulties; and

(q) Evaluating or conducting surveillance of production quality systems including assistance in determining that a supplier complies with purchase order and quality requirements at locations in the U.S. or Singapore

8.1.3.2 Airworthiness Certification Support

(a) Assistance in the delivery of airworthiness certificates for aircraft; and

(b) Assistance acquiring information on the original export configuration of a used aircraft from the aircraft manufacturer.

8.2 Witnessing of Tests During Design Approval

8.2.1 The FAA or the CAAS may request that the other authority assist in the witnessing of tests.

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, unless a specific procedure has been jointly established between the FAA and the CAAS. Witnessing of tests will be conducted only after consultations and consent 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 requested, approval of the design approval applicant's test plans, test procedures, test specimens, and hardware configuration remains the responsibility of the Authority of the SoD. Establishing the conformity of each test article prior to conducting the test is the responsibility of the design approval applicant.

8.2.4 Test witnessing activities may require the development of a Management Plan 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 delegated organizations, as applicable.

8.2.5 Where there is no Management Plan, 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 ten working days prior to each scheduled test.

8.2.6 The FAA or the CAAS requests for conformity of the test set-up

and/or witnessing of tests should be sent to the appropriate FAA or CAAS office which has responsibility for the location of the test. Requests for test witnessing may be sent to the FAA on FAA Form 8120-10, Request for Conformity, or to the CAAS through email. FAA and CAAS offices are listed in Appendix A.

8.2.7 Upon completion of test witnessing on behalf of the requesting Authority, the FAA or CAAS will send a report stating the outcome of the test and confirming the test results, as well as any other documentation as notified by the requesting Authority. These reports and documentation will be sent in a timely fashion, to support project milestones identified in the Work Plan.

8.3 Compliance Determinations

8.3.1 The FAA or the CAAS may also request that specific compliance determinations be made associated with 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 conformity will be sent in a formal letter, (electronic transmission is permitted), to the requesting FAA or CAAS office.

8.4 Conformity Certifications during Design Approvals

8.4.1 The CA may request that the CAA in the State in which the design approval applicant's part supplier is located provide conformity certifications.

8.4.2 Only Authority-to-Authority requests are permissible, and Authorities will not respond to a conformity certification request from the applicant, manufacturer, supplier, or designee, unless a specific procedure has been jointly established between the FAA and the CAAS. Certifications will be conducted only after consultations between the two Authorities on the specific work to be performed, and commitment has been obtained from the CAA in the State in which the supplier is located. Requests for conformity certifications should be limited to prototype/pre-production parts that are of such complexity that they cannot be inspected by the manufacturer or its CAA prior to installation in the final product. Conformity certifications may require the development of a Management Plan 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 FAA requests for conformity certifications will be sent to the FAA on a completed FAA Form 8120-10, or to CAAS through email at the address listed in Appendix A.

8.4.4 Conformity inspection can be requested to verify that the part conforms to the type design via drawings, to verify certain types of equipment is installed, or to ascertain certain information on the test setup before the test begins. Any deviation to the type design, test set up, etc. must be recorded. The conformity deviation(s) has to be reviewed and approved by a CAA engineer, DER, or Authorized Representative to ensure it will not affect the test data/result for certification credit.

8.4.5 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 CAA of the State in which the supplier is located will note all deviations from the requirements notified by the design approval applicant's CAA on the conformity certification for the particular part. Any nonconformity described as a deviation must be brought to the attention of the FAA or the CAAS for evaluation and disposition. The FAA or the CAAS must receive a report stating the disposition required on each deviation before an FAA Form 8130-3 or CAAS form CAAS(AW)95 is issued.

8.4.6 Neither conformity certification on prototype/pre-production parts, nor inspections on prototype/pre-production parts, should be construed as being an export airworthiness approval, since a conformity certification does not constitute an airworthiness determination. Airworthiness determinations remain the responsibility of the design or production approval holder and the CAA of the State in which the holder is located.

8.5 Other Requests for Support

The FAA or the CAAS may request other types of technical support. 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 support is repetitive or long-term, a Special Arrangement may be needed. Upon completion of all surveillance and other support conducted on behalf of the requesting authority, the FAA or the CAAS will complete and return all documentation to the requesting authority, as notified.

8.6 Airworthiness Certificates

There may be certain programs and conditions that warrant technical support for the issuance of standard airworthiness certificates so that aircraft may be placed directly into operation from the site of manufacture. The IA may seek assistance from the EA in the final processing and delivery of an airworthiness certificate when the aircraft has been manufactured, granted an Export Certificate of Airworthiness by the EA, and entered on the importing State's registry. This will require the development of a Management Plan between the EA and the IA. For the FAA this process is prescribed in Order 8130.2; for the CAAS the process is prescribed in Singapore Airworthiness Requirement.

8.7 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 shall not copy, release, or show proprietary data obtained from either Authority to anyone other than an FAA or a CAAS employee without written consent of the design approval holder or other data submitter. The FAA or the CAAS shall obtain this written consent from the design approval holder through the CAA of the SoD and it will be provided to the other Authority.

8.8 Freedom of Information Act (FOIA) Requests

8.8.1 The FAA often receives requests from the public under the United States Freedom of Information Act (FOIA) (5 U.S.C. 552) to release information that the FAA may have in its possession. The FAA must disclose each record in its possession 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.

8.8.2 When the FAA receives a FOIA request related to a product or article of an FAA approval holder or applicant who is located in Singapore, the FAA will request the CAAS's 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. Singapore has no similar type of request that can be initiated by the public. The CAAS may assist to the best of its ability and subject to its own national laws relating to confidentiality of information.

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 Authority. In turn, upon receipt of the request for information, the EA shall 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 shall cooperate to address urgent information needs and support the SoD's timely investigation and resultant continual safety actions. Following an incident/accident, upon receipt of an urgent request for information, the FAA or the CAAS shall

provide the requested information. The FAA and the CAAS shall 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 if immediate contact with the appropriate focal points cannot be made. In such cases, notification of the direct contact with the manufacturer will be made as soon as possible to the other authority. Either the FAA or the CAAS, as applicable, shall assist in ensuring that their manufacturer provides requested information expeditiously.

SECTION IX SPECIAL ARRANGEMENTS AND MANAGEMENT PLANS

9.1 General

9.1.1 It is anticipated that urgent or unique situations will arise that have not been specifically addressed in these Implementation Procedures, but which are within the scope of the BASA. When such a situation arises, it will be reviewed by the FAA Aircraft Certification Service International Office and the CAAS Flight Standards Division, and a procedure will be developed to address the situation. The procedure will be developed 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 could lead to further repetitions, then the Special Arrangement will be established for the interim period until these Implementation Procedures gets revised accordingly by the FAA and the CAAS.

9.1.2 When detailed terms and explanations of technical procedures are needed to carry out activities that fall within the scope of these Implementation Procedures or a Special Arrangement under these Implementation Procedures, then those terms and explanations will be set forth in Management Plans agreed to by the FAA and the CAAS.

SECTION X ENTRY INTO FORCE AND TERMINATION

10.1 These Implementation Procedures shall enter into force on September 23, 2025.

10.2 These Implementation Procedures replace the earlier Implementation Procedures for Airworthiness dated February 6, 2018, established under the Bilateral Aviation Safety Agreement (BASA) Executive Agreement, dated February 24, 2004.

10.3 These Implementation Procedures shall remain in force until terminated. Either Party may terminate these Implementation Procedures at any time by providing sixty (60) days' notice in writing to the other Party. Termination of these Implementation Procedures will not affect the validity of activity conducted thereunder prior to termination.

SECTION XI AUTHORITY

The FAA and 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 The Republic of Singapore
By Bryan Bedford	By
Bryan Bedford	Han Kok Juan
Title Administrator	Title Director-General of Civil Aviation
Date 9/23/25	Date 9/23/25

APPENDIX A ADDRESSES

The designated focal point offices for these Implementation Procedures are:

For the FAA

International Office (AIR-040)
Aircraft Certification Service
Federal Aviation Administration
800 Independence Avenue, SW
Washington, DC 20591
U.S.A.
Telephone: 1-202-385-8950
Fax: 1-202-493-5144
E-mail: 9-AWA-AVS-AIR-400@FAA.GOV

For the CAAS

Flight Standards Division
Civil Aviation Authority of Singapore
Singapore Changi Airport Terminal 2,
4th Storey North Finger Pier,
047-029, CAAS North Pier Office
Singapore 819643

FAA Offices

Key Aircraft Certification Service Offices for these Implementation Procedures

https://www.faa.gov/aircraft/air_cert/international/bilateral_agreements/baa_basa_listing

CAAS Offices

Key Contacts for these Implementation Procedures

Contact Point for CAAS

CAAS Offices
Flight Standards Division
Civil Aviation Authority of Singapore
Singapore Changi Airport Terminal 2,
4th Storey North Finger Pier,
047-029, CAAS North Pier Office
Singapore 819643

Refer to the following links for the contacts of the respective officers in Flight Standards division:

- Flight Standards division: www.sgdi.gov.sg/ministries/mot/statutory-boards/caas/departments/srg/departments/fs

- Airworthiness Certification: www.sgdi.gov.sg/ministries/mot/statutory-boards/caas/departments/srg/departments/fs/departments/ac

Director Flight (Standards)
Mr Foong Ling Huei
Email: foong_ling_huei@caas.gov.sg

Deputy Director (Airworthiness Certification)
Mr George Foo
Email: george_foo@caas.gov.sg

Head (Airworthiness Engineering)
Mr Vincent Ng
Email: vincent_ng@caas.gov.sg

FM&D/SDR List

Copies of Singapore FM&D/SDR list may be requested from the CAAS Flight Standards division.

APPENDIX B LIST OF SPECIAL ARRANGEMENTS

[reserved]

APPENDIX C CROSS-REFERENCE OF STANDARDS

Product	FAA Regulations 14 CFR	CAAS Standards
Aircraft Emissions and Noise	Part 21 section 21.93 (b), (c) Part 34 Fuel venting and exhaust Part 36 Noise	SAR-21.755 (a), (b), (c), (d)
Gliders & Powered Gliders	Part 21	[reserved]
Powered Lift	Part 21	[reserved]
Small Airplanes	Part 23	SAR-21.755 (a), (b), (c), (d)
Very Light Airplanes (Light Sport Aircraft in the U.S.)	Part 21	[reserved]
Transport Category Airplanes	Part 25	SAR-21.755 (a), (b), (c), (d)
Continued Airworthiness and Safety Improvements for Transport Category Airplane	Part 26	SAR-21.755 (a), (b), (c), (d)
Normal Category Rotorcraft	Part 27	SAR-21.755 (a), (b), (c), (d)
Transport Category Rotorcraft	Part 29	SAR-21.755 (a), (b), (c), (d)
Manned Free Balloons	Part 31	SAR-21.755 (a), (b), (c), (d)
Aircraft Engines	Part 33	SAR-21.755 (a), (b), (c), (d)
Propellers	Part 35	SAR-21.755 (a), (b), (c), (d)
Articles & Parts	Part 21, Subpart O	SAR-21.760
Airships	Part 21	[reserved]

The FAA's Dynamic Regulatory System (DRL) contains many aviation regulatory, certification, and safety information documents: https://drs.faa.gov/browse

The CAAS's regulations and guidance materials are available at CAAS website: https://www.caas.gov.sg/legislation-regulations

APPENDIX D DOCUMENTS SUPERSEDED OR CANCELLED BY THIS IPA

1. Implementation Procedures for Airworthiness (IPA) dated February 6, 2018.

APPENDIX E LIST OF ACRONYMS

AC	Advisory Circular
AD	Airworthiness Directive
AEC	Areas of Established Confidence
AED	Aircraft Evaluation Division
AFM	Aircraft Flight Manual
AIM	Airworthiness Inspection Manual
AIR-040	Aircraft Certification Service, International Office
AMOC	Alternative Methods/Means of Compliance
ATC	Amended Type Certificate
BASA	Bilateral Aviation Safety Agreement
CA	Certificating Authority
CAA	Civil Aviation Authority
CAAS	Civil Aviation Authority of Singapore
CAR	Civil Air Regulation
CCV	Concurrent Validation
CFR	Code of Federal Regulations
COS	Continued Operational Safety
CS	Certification Specifications
DER	Designated Engineering Representative
EA	Exporting Authority
EASA	European Union Aviation Safety Agency
FAA	Federal Aviation Administration
FM&D	Failures, Malfunctions and Defects
FOIA	Freedom of Information Act (U.S.)
FSDO	Flight Standards District Office
FTV	Full Technical Validation
IA	Importing Authority
ICA	Instructions for Continued Airworthiness
ICAO	International Civil Aviation Organization
IPA	Implementation Procedures for Airworthiness
JAR	Joint Aviation Requirements
LODA	FAA Letter of TSO Design Approval
LOATC	Letter of Acceptance of Type Certificate
LTV	Limited Technical Validation
MCAI	Mandatory Continuing Airworthiness Information

MMEL	Master Minimum Equipment List
MP	Management Plan
MOC	Method of Compliance
PM	Project Manager
PMA	Parts Manufacturer Approval
POA	Production Organization Approval
SA	Specification Approval or Special Arrangement
SCV	Sequential Validation
SDR	Service Difficulty Report
SEI	Special Emphasis Item
SIP	Schedule of Implementation Procedures
SoD	State of Design
SoDM	State of Design Modification
SoM	State of Manufacture
SoR	State of Registry
SSD	Significant Standards Difference
STC	Supplemental Type Certificate
SV	Streamlined Validation
TA	Type Acceptance
TC	Type Certificate
TCDS	Type Certificate Data Sheet
TSO	Technical Standard Order
U.S.	United States of America
VA	Validating Authority
VLA	Very Light Airplanes

APPENDIX F AREAS OF ESTABLISHED CONFIDENCE

This appendix documents the areas where the FAA and CAAS's certification competency have been demonstrated and recognized by the other party. The AEC is one of the Safety Element components as defined in paragraph 3.5.3 of this IPA and is used to determine the applicable validation process as well as to establish the scope and depth of the validating authority's technical review in projects subjected to the limited technical validation (LTV) process defined in paragraph 3.5.5 of this IPA. The regulations listed below are listed as U.S. CFRs, but since Singapore aviation regulations are identical to U.S regulations, only CFRs need to be listed. If there are SSDs or changes to U.S. regulations, both authorities are bound by this IPA to notify each other of those changes and revise the IPA accordingly.

As mentioned in paragraph 3.5.3.3(j) of this IPA, the validating authority will not get involved in the review of the areas listed in this appendix unless triggered by the other safety elements stated in paragraph 3.5.3 of this IPA. For a validation project involving areas not referenced in this appendix, the validating authority may request to review the associated technical data relating to those areas.

Areas of Established Confidence for FAA

Areas of Established Confidence for the FAA, although not all listed here to conserve space, encompass all aviation certification regulations referenced in 14 CFR related to airworthiness of aircraft, covering design and production.

Areas of Established Confidence for CAAS

1. PRODUCTS

PART 25 TRANSPORT CATEGORY AIRPLANES

Subpart B - Flight
25.23 - Load distribution limits
25.25 - Weight limits
25.27 - Center of gravity limits
25.29 - Empty weight and corresponding center of gravity
25.251 - Vibration and buffeting
Subpart C - Structure
25.301 - Loads
25.303 - Factor of safety
25.305 - Strength and deformation
25.307 - Proof of structure
25.365 - Pressurized compartment loads
25.561 - Structure emergency landing
25.562 - Emergency landing dynamic conditions
25.571 - Damage—tolerance and fatigue evaluation of structure
25.581 - Lightning Protection
Subpart D - Design and Construction

25.601 - Design and Construction General
25.603 - Materials
25.605 - Fabrication methods
25.607 - Fasteners
25.609 - Protection of structure
25.611 - Accessibility provisions
25.613 - Material strength properties and material design values
25.619 - Special factors
25.621 - Casting factors
25.623 - Bearing factors
25.625 - Fitting factors
25.785 - Seats, berths, safety belts, and harnesses
25.787 - Stowage compartments
25.789 - Retention of items of mass in passenger and crew compartments and galleys
25.791 - Passenger information signs and placards
25.793 - Floor surfaces
25.795 - Security Considerations
25.803 - Emergency Provisions
25.811 - Emergency exit marking
25.812 - Emergency Lighting
25.813 - Emergency exit access
25.815 - Width of aisle
25.817 - Maximum number of seats abreast
25.819 - Lower deck service compartments (including galleys)
25.820 - Lavatory doors
25.831 - Ventilation
25.851 - Fire extinguishers
25.853 - Compartment interiors
25.854 - Lavatory Fire Protection
25.855 - Cargo or baggage compartments
25.857 - Cargo compartment classification
25.869 - Fire Protection, Systems
Subpart F - Equipment
25.1301 - Function and Installation
25.1307 - Miscellaneous Equipment
25.1309 - Equipment, Systems, and Installations
25.1351 - Equipment General
25.1353 - Electrical Equipment and Installations
25.1355 - Distribution system
25.1357 - Circuit Protective Devices
25.1360 - Precautions against Injury
25.1365 - Electrical Appliances, Motors, and Transformers
25.1411 - General
25.1415 - Ditching equipment
25.1421 - Megaphones
25.1423 - Public Address System
25.1431 - Electronic Equipment
25.1441 - Oxygen Equipment and Supply

25.1443 - Minimum Mass Flow of Supplemental Oxygen
25.1447 - Equipment Standards For The Oxygen Dispensing Units
25.1450 - Chemical Oxygen Generators
Subpart G - Operating Limitations and Information
25.1501 - Operating Limitations, General
25.1519 - Weight, center of gravity, and weight distribution
25.1525 - Kinds of operation
25.1529 - Instructions for Continued Airworthiness
25.1541 - Operating Limitation and Information General
25.1557 - Miscellaneous markings and placards
25.1561 - Safety Equipment
25.1581 - AFM General
25.1583 - Operating limitations
25.1585 - Operating Procedures
Subpart H - Electrical Wiring Interconnection Systems (EWIS)
25.1701 - EWIS Definitions
25.1703 - Function and Installation: EWIS
25.1705 - System and Functions: EWIS
25.1707 - System Separation: EWIS
25.1709 - System Safety: EWIS
25.1711 - Component Identification: EWIS
25.1713 - Fire Protection: EWIS
25.1715 - Electrical Bonding and Protection against Static Electricity: EWIS
25.1717 - Circuit Protective Devices: EWIS
25.1719 - Accessibility Provisions: EWIS
25.1721 - Protection of EWIS
25.1723 - Flammable Fluid Fire Protection: EWIS
25.1729 - Instructions for Continued Airworthiness: EWIS

PART 26 CONTINUED AIRWORTHINESS

Areas that are equivalent to those identified for Part 25 Transport Category Airplanes.

Part 26 Subpart B - Enhanced Airworthiness Program for Airplane Systems
26.11 - Electrical Wiring Interconnection Systems (EWIS) Maintenance Program
Part 26 Subpart E - Aging Airplane Safety - Damage Tolerance Data for Repairs and Alterations
26.47- Holders of and applicants for a supplemental type certificate—Alterations and repairs to alterations

PART 23 NORMAL CATEGORY AIRPLANES

Areas that are equivalent to those identified for Part 25 Transport Category Airplanes.

PART 27 NORMAL CATEGORY ROTORCRAFT

Areas that are equivalent to those identified for Part 25 Transport Category Airplanes.

PART 29 TRANSPORT CATEGORY ROTOCRAFT

Areas that are equivalent to those identified for Part 25 Transport Category Airplanes.

2. ARTICLES

All aircraft cabin-related article designs that are in compliance with the TSOs published by the FAA.