U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

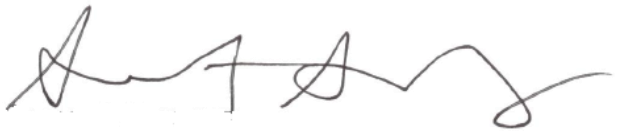
ORDER 8110.52B

National Policy

09/29/2017

SUBJ: Type Validation and Post-type Validation Procedures

This order defines the policy and procedures to issue a type certificate (TC) for a product (aircraft, aircraft engine, or propeller as defined in Title 14 of the Code of Federal Regulations (14 CFR) 21.1) or a supplemental type certificate (STC) for a major change to a product, as well as approving follow-on changes to these certificates, when the United States is not the State of Design pursuant to 14 CFR 21.29. For the purposes of this guidance material, these certificates issued to foreign type design holders will be referred to as "validated" so as to clearly distinguish them from their domestic certification counterparts. This order also defines how the Federal Aviation Administration (FAA) supports the validation by foreign authorities of exported U.S. products and the continued airworthiness of imported and exported products. This Order supersedes any conflicting guidance relevant to validation activities referenced within FAA Order 8110.4, *Type Certification*. All guidance material described herein is within the purview of the FAA's Aircraft Certification Service under Aviation Safety, International Division (AIR-400).



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Chapter 1. General

1-1. Purpose. This order defines the policy and procedures to issue a validated type certificate (TC) for a product (aircraft, aircraft engine, or propeller) or a validated supplemental type certificate (STC) for a change to a product, as well as approve any follow-on changes to these certificates, when the United States is not the State of Design (SoD). For the purposes of this directive guidance, these certificates will be referred to as "validated" so as to clearly differentiate them from their domestic counterparts. This order also defines how the FAA supports validation by foreign authorities of exported U.S. products and the continued airworthiness of imported and exported products. Lastly, this order defines the required expectations, roles and responsibilities of the FAA when working with a foreign civil aviation authority (FCAA) and the applicant during validation activities. Within the context of this order, all such activities are referred to generally as foreign validation (FV) projects unless otherwise clarified.

1-2. Audience. All FAA personnel who are involved in type validation and post-type validation activities.

1-3. Cancellation. FAA Order 8110.52A, *Type Validation and Post-Type Validation Procedures*, dated December 2, 2014, is canceled upon the effective date of this order. All open projects that may be effected by this revision should be updated at the discretion of the project office.

1-4. Where to Find This Order. You can find this order at MyFAA employee website at https://employees.faa.gov/tools_resources/orders_notices and on the Regulatory and Guidance Library (RGL) website at http://rgl.faa.gov.

1-5. Distribution. Distribute this order to the Washington headquarters branch levels in the Aircraft Certification Service, Flight Standards Service, and Office of Environment and Energy; the branch levels of the regional aircraft certification standards/policy offices and regional Flight Standards Divisions; all ACOs; and all Aircraft Evaluation Groups (AEG).

1-6. Explanation of Policy Changes. This order was revised to incorporate a systems-based approach to safety management, project completion and oversight that emphasizes a stronger reliance on the certifying authority (CA) based on established confidence to, among other benefits, reduce redundant involvement by the validating authority (VA) and to introduce the concept of the validation plan. The discretionary approach, described herein, is not a new concept as now detailed within Chapter 2 of the order. Furthermore, this Order also aids in supporting the validation project and oversight initiatives directed to AIR within FAA Order 8000.72, *FAA Integrated Oversight Philosophy*. With coordination from the Policy and Innovation Division (AIR-600) and the FAA's Office of Chief Council (AGC), AIR-400 is hereby establishing the baseline guidance for all FAA personnel to follow when working such projects.

1-7. Scope.

a. The policy and procedures in this order apply to all type validation activities conducted by the FAA. When applicable, FAA personnel are required to consult the appropriate bilateral airworthiness agreements (BAA) or bilateral aviation safety agreement implementation procedures for airworthiness (BASA IPA) or equivalent AIR-level technical procedures in order to determine specific expectations for an individual bilateral partner and the FAA. Typically, these bilateral partner specific documents hold precedence of this Order.

b. For the purposes of this guidance material, the general term "Implementation Procedures" will be used to consolidate the terms implementation procedures for airworthiness (IPA), Technical Implementation Procedures (TIP), or Schedule of Implementation Procedures (SIP) as appropriate for the specific agreement between the FAA and that FCAA. Certain aspects of this guidance material may also apply to Working Procedures (WP) the FAA has established with some non-bilateral aviation partners.

c. You may obtain an up-to-date list of countries with which the United States (U.S.) has a bilateral agreement from AIR-400 or directly from their website at: http://www.faa.gov/aircraft/air_cert/international/bilateral_agreements/baa_basa_listing/.

d. In situations where there is no BAA or BASA in place between the FAA and an FCAA, certain procedures should be followed. This Order contains applicable procedures for most, but possibly not all, of the foreseeable situations.

Chapter 2. Validation Policy

2-1. Legal and Regulatory Foundations. Through this revised Order, the FAA validation policy is now aligned with the statutory requirements of 49 United States Code (U.S.C.) §§ 44704(a) and 44701(a), the regulatory requirements of Title14 of the Code of Federal Regulations (14 CFR) 21.29, and the 2009 Final Rule preamble clarification language pursuant to Federal Register Docket No. FAA–2006–25877. The statute, regulation, and the clarifying preamble language provide the FAA with discretion to issue a validated TC or STC based on a corresponding certificate issued by an FCAA when the FAA finds that it meets our airworthiness standards directly or a level of safety equivalent to our standards as determined by the FAA's regulatory oversight system. This approach allows the FAA to address system differences above the project working-level, thereby promoting an effective and efficient validation process while also ensuring an acceptable level of safety.

2-2. Goals and Principles.

a. The overall goal of validation is to ensure the FCAA's approval of the validated product meets the minimum regulatory level of U.S. aviation safety standards. The bilateral aviation agreement referenced in § 21.29 recognizes the comparable regulatory oversight systems of the FAA and an FCAA. Through the development of Implementation Procedures, the FAA is able to rely on the system and capabilities of the FCAA in finding compliance with FAA airworthiness standards.

b. Validation is not a recertification of the SoD's original approval. As stated in the part 21 Docket N. FAA-2006-25877 Final Rule preamble, section II.A.9. Definitions, "…data approved by a foreign civil aviation authority under a bilateral agreement does not require further FAA approval." This is one of the most important principles being clarified by the FAA in this order revision and with our global partners. Validation is an action completed by the importing authority (as a State of Registry, or SoR) for the products certified by the SoD. This distinction between validation and recertification reflects the different responsibilities each authority has within their unique roles.

c. The FAA's primary validation principle is to use a *discretionary* (may also be risk-based) approach based on the applicable bilateral framework for determining whether an FCAA's approved type design directly meets our airworthiness requirements, or their equivalent.

d. The validation of an FCAA's approval is based on several factors, including our level of confidence in their certification safety system, their ability to make compliance findings in a consistent manner, their historical issuance of certificates that meet minimum safety standards, and their ability to support the FAA when conducting effective continued airworthiness.

(1) The assessment of these capabilities and determination of our confidence in FCAAs is accomplished through a variety of efforts facilitated by the Aircraft Certification Service International Division, AIR-400 and the Office of Chief Counsel (AGC), and supported by the product standards experts along with various knowledgeable FAA field office personnel. The outcome of these efforts is intended to result in unique Implementation Procedures with

individual FCAAs. These established procedures, in whole, represent the FAA's level of confidence with the FCAA's system.

(2) As the FAA's confidence increases over time with an FCAA's safety system, a reduction in the technical-level review process may be warranted. For the project office, this results in a reduced need to conduct discreet technical reviews in those areas where the FAA has determined a high level of confidence.

(3) For those FCAAs with which the FAA has developed the highest level of confidence, a *streamlined* validation process may be possible. All such processes and determinations will be specifically addressed within the applicable Implementation Procedures between the FAA and our bilateral partner.

e. The FAA applies these same principles to our *export* (also referred to as *outbound*) validation activities. Automatic acceptance by FCAAs (acting as a validating authority (VA)) should never be assumed, therefore, the FAA project office must be ready to support our applicants during the VA's review process. This order includes procedures in Chapter 4 regarding how the FAA will support the certificates we issue in the validation processes with an FCAA.

f. Each Civil Aviation Authority (CAA) has responsibilities for continued airworthiness correlating to their respective roles, whether as the SoD, State of Manufacture (SoM), or SoR, or as the CA or VA. These responsibilities are further enhanced as SoD products are exported to operators under other SoRs and as the aviation industry expands their design/manufacturing/ supplier approach to be more globally distributed. For the VA, these responsibilities drive the need to understand the level of confidence not only in the CA's findings and safety system, but also in the CA's ability to support continued airworthiness for aircraft on the VA's registry.

2-3. Communications.

a. The validation process relies on the confidence and relationship between authorities; as such, a high priority has been placed on establishing and maintaining productive communications with FCAA representatives at each level of the process. AIR-400 has the responsibility to determine and establish the overarching guidance. Accordingly, AIR-400 is available for additional guidance when the FAA project office determines that the FCAA is not abiding by the intent and process of the Implementation Procedures. Note that certificate holders are expected to support all technical matters for the validation application. However, the FAA must recognize that the CA supports all findings resulting in the issuance of the certificate being considered.

b. In rare instances for outbound validation, U.S. applicants will directly contact a foreign authority to submit a validation application. While it is not typical, there is no regulatory requirement for an official CA/VA agreement to be in place for the FAA to export our products. If an agreement (i.e., bilateral Implementation Procedures or equivalent) is in place, communication should always be conducted in accordance with the procedures prescribed in the agreement with the FCAA. In the majority of instances, the lines of communication are limited to only the VA and CA. In lieu of an outbound agreement, the FAA project office and its

assigned project manager (PM) (with the support of AIR-400) will attempt to contact the cognizant FCAA and establish communications prior to initiating any export processes. For some projects, communications may not be able to be established with the FCAA. While this does not preclude the project office/PM from processing the application on behalf of our applicant, it may place a higher burden on the FAA and may affect our ability to rely on our designee systems. If official FCAA communication is not possible for any reason, the PM is encouraged to seek guidance directly from AIR-400 prior to closing the project.

c. For inbound validations, FAA regulation (based on § 21.29) requires an "agreement" (BASA or BAA) to be in place and for the CA to certify that the product has been found to meet the applicable airworthiness requirements as part of the validation application. Sometimes the CA may make findings of compliance on behalf of the FAA. The PM will rely on the procedures and format identified in the agreement's Implementation Procedures with that FCAA for such statements. Should no specific language exist, the PM must follow this order when processing an FCAA's finding(s) of compliance. If no BASA/BAA has been established, the FAA will not accept any applications for validation from that FCAA. Any PM receiving such request must notify AIR-400 for our awareness so that appropriate discussions and future agreements can be established if necessary.

d. The FAA recognizes that our confidence in an FCAA's ability to find compliance with airworthiness requirements is not the only potential barrier to achieving full acceptance of a foreign TC without any FAA technical review. The cognizant policy offices should continually strive to clearly identify and document those areas where harmonization of operational and other requirements with the FCAA can be maximized to support minimum FAA review and revision of FCAA approved data. Thus it ensures compatibility with the U.S. administrative, regulatory, and operational requirements that may not be within the purview or policies of AIR. Areas requiring FAA review also involve, for example, the requirements of Flight Standards (AFS), Rulemaking (ARM), the Environmental Protection Agency (EPA) and the Office of Chief Council (AGC).

2-4. Concurrent and Sequential Validation Projects.

a. Validation activities may occur concurrently (i.e., along parallel timelines) or sequentially (i.e., in a linear timeline) with the certification activities. Under no circumstances should the VA ever progress further into their validation process beyond the CA's certification process. The processes and procedures for concurrent or sequential validation projects are described within the applicable Implementation Procedures between the FAA and that FCAA.

b. In a concurrent validation, the CA requests (on behalf of its applicant) validation of the certificate by one or many FCAAs *at the same time* as the CA is conducting the certification activity. This approach allows VA concerns and/or additional technical conditions requirements to be addressed during the design development and compliance demonstration. A harmonized VA/CA type design should be the objective of such a concurrent process, but this goal may not always be possible due to project-specific factors. For these types of projects, the VA should effectively utilize the established levels of confidence for the specific CA prior to determining their level of review as the VA.

c. In a sequential validation, the CA has completed its certification, or is well advanced in the certification process, *before* a validation application is submitted. In this case, the CA's certification basis and acceptable methods of compliance have already been established and/or approved. Certification flight tests may also be completed. In many instances, the CA TC may already be issued and the product may already be in operational service. For these types of projects, the VA should effectively utilize the established levels of confidence for the specific CA prior to determining their level of review as the VA.

2-5. Establishing and Maintaining Confidence.

a. In order to establish our initial confidence in an FCAA, AIR conducts a system-level assessment of their aircraft certification system to determine their comparability with the FAA's system prior to establishing a bilateral agreement. The initial assessment is led by AIR-400 with assistance from the cognizant product expert/field offices, when appropriate. It covers all the major part 21 areas to ensure that the FCAA's system has at least a comparable and robust certification process with respect to the FAA's overall system.

b. The system-level assessment is followed by one of technical competence. This technical assessment is led by the pertinent product expert/field offices and supported by AIR-400. It covers the applicable airworthiness standards to the product(s) under review to ensure that the FCAA's regulatory system has the necessary technical competencies for a specific product type(s). The level of confidence the FAA has in the bilateral partner's technical competence, along with the aforementioned system assessment, is captured and documented within the bilateral agreement or associated supplement document(s).

c. The intent of the maintenance of confidence is based on a high degree of mutual confidence in the FAA's and the CAA's technical competence and ability to perform regulatory functions within the scope of the bilateral agreement, subsequent implementation procedures, and associated documentation. It provides AIR with the mechanism to leverage the certification system of a FCAA. This means that the FAA and FCAA will rely to the maximum extent possible on the approvals made by the other authority, as if they were made in accordance with its own applicable laws, regulations, and requirements.

d. AIR monitors its confidence in the FCAA continuously using bilateral relationship management efforts, including a data-driven approach over the length of the bilateral relationship. This allows AIR to utilize its resources to their most efficient and effective potential while identifying opportunities to limit additional review and eliminate duplication of compliance findings if the SoD certifies that the product has been examined, tested, and found to meet the applicable airworthiness requirements.

Chapter 3. FAA Validation

3-1. Issuing Type Certificates for Non-U.S. State of Design Products.

a. This chapter provides directive information on the FAA's responsibilities for technical validation as the VA for all inbound FV projects. This process must be followed in its entirety unless otherwise superseded or supplemented via the applicable Implementation Procedures between the FAA and our FCAA partners.

b. The FAA may issue a TC or an STC when the U.S. is not the SoD for the product or change to the product, respectively, in accordance with § 21.29. For the purpose of this order, this TC or STC is called a "validated TC" or "validated STC." The term "validated" is used to distinguish these certificates from those that the FAA has issued as the SoD.

Note: These certificates may also sometimes be referred to as an "import TC" or "import STC."

c. The validation process relies on the compliance provided to the FAA by the CA. These compliance determinations are found in the applicable requirements of Subchapter C of 14 CFR (as designated in § 21.17) or in the applicable airworthiness requirements of the SoD *and* any other requirements the FAA may prescribe to provide a level of safety equivalent to that provided by the applicable airworthiness requirements of Subchapter C as designated in § 21.17 (or 21.101 for major design changes).

(1) Compliance determinations are the regulatory findings that establish the product has satisfied a specific airworthiness and/or environmental standard.

(2) Compliance determinations to the environmental standards the FAA has established for the product are made by either the CA or the FAA (with support of the CA), depending on the specifics of the bilateral agreement.

3-2. Project Prioritization.

a. CA applicants that submit a request to their authority for a validated U.S. design approval should provide for the FAA evidence that indicates a level of U.S.-market interest. A design approval may still be issued even when there is no evidence of market interest for the United States; however, such a scenario may result in a longer project prioritization timeline.

b. As determined by the project office, FV applications should follow the existing office-specific operating procedures for project prioritization as applicable.

Note: The FAA has limited resources and therefore should not typically issue a design approval for products manufactured outside the United States unless they are to be operated here or imported, for example, an aircraft to be U.S.-registered, or an engine, propeller or article to be incorporated into a U.S.-registered aircraft or U.S.-manufactured product.

3-3. Establishing an FAA Project.

a. The project office for the activities in this chapter is defined by FAA Order 8100.5, *Aircraft Certification Service – Organizational Structure and Functions.* Typically, the project office will be the accountable standards/policy office or their designated ACO, according to internal operating procedures.

Note: Some Implementation Procedures may provide procedures that supersedes this order regarding which office the FAA has predesignated as the official project office for working with specific FCAAs.

b. Upon receipt of an inbound application for the validation of a TC, an STC, or approval of a major change to either certificate, the FAA project office will enter all relevant information into an office work tracking system.

c. The project office must obtain a project number and coordinate the project within the FAA as outlined in FAA Order 8110.115, *Certification Project Initiation and Certification Project Notification*.

3-4. Review of Application.

a. The project office should review the applicable BASA Implementation Procedures to determine if the type of application is included in the agreement.

Note: This review will focus on the scope of the Implementation Procedures to determine whether the application may be accepted.

b. The project office should also determine that the application includes all documents required by the Implementation Procedures, if any are defined. A complete application should include most, if not all, of the following:

(1) Applicant's name, address, and point of contact;

(2) Associated CA project numbers or final certification/approvals;

(3) Type of validation requested and description (i.e. TC, ATC, STC, ASTC);

(4) Design and production information (consistent with the applicable Implementation Procedures);

(5) Description of any separate SoD/SoM considerations;

(6) Request for any design/production special arrangements;

(7) Proposed FAA Certification Basis (accepted by the CA);

(8) Proposed additional technical conditions (reviewed by the CA);

(9) A complete definition of the CA's certification basis that includes details of any CA defined additional technical conditions for direct reference;

(10) Proposed familiarization plan (initiated by the CA's applicant; see section 3-7 of this order for additional information on such a plan);

(11) Proposed U.S. market information for the products and/or articles (provided by the applicant);

(12) SoD's certifying statement pursuant to 14 CFR § 21.29; and

(13) Proposed project completion schedule.

b. If an application is determined by the project office to be incomplete for any reason, the project office must request the required documents or corrections directly from the CA. The FV project may not proceed until the application is complete. Return the application within 10 days, or as defined in the applicable Implementation Procedures, once the determination has been made (at the discretion of the project office management) that no reasonable path to completion exists. If needed, refer to the sample rejection letter in Appendix E.

3-5. Streamlined Validation.

a. As referenced in Chapter 2, for those CAs with which the FAA has developed the highest level of confidence in their system safety (or safety risk) (reference FAA Order 8000.72 for more information), a streamlined process may be possible for certain applications that does not include a technical review by the FAA.

b. In the streamlined validation process, the FAA has predetermined that our technical involvement can be minimized (or even eliminated) via a systems-based approach for ensuring that a level of safety equivalent to our standards can be established.

c. Review the applicable Implementation Procedures with these key bilateral partners for more information on the criteria for classification and details of the streamlined process.

3-6. Developing the Validation Plan.

a. The validation plan is a scalable project planning document developed and followed only by the VA, although it may be communicated with all relevant stakeholders (as determined by the project office). Furthermore, it identifies the minimum project elements necessary to complete the FAA's validation process, thus providing a standardized approach for the FAA to follow.

Note: The validation plan may also be referred to as a technical validation work plan, validation work plan, or simply as a work plan in the various Implementation Procedures or Management Plans.

b. A validation plan must be created for each new TC or STC validation application submitted to the FAA, except those being processed under streamlined validation. For major design changes to the TC or STC, the use of the validation plan is required if technical review is planned, otherwise the use is at the discretion of the project office.

(1) For projects needing a more robust and structured set of criteria in addition to expanded CA and/or applicant involvement, AIR-400 is hereby introducing the project specific validation plan (PSVP).

(2) A sample PSVP is provided in Appendix D of this document and may be utilized by the PM at their discretion. While a PSVP is never required, the PM is encouraged to utilize available FAA tools and resources in the most efficient and effective manner possible.

c. A complete validation plan must include, at a minimum, the items listed below, but these items are not required to be completed prior to initial development of the plan. Refer to the applicable Implementation Procedures for a more specific list of items that may be required or helpful in this process.

Note: The specifics of the validation plan items listed below are covered in greater detail in the subsequent sections of this chapter.

(1) Identification of the CA and their applicant;

(2) Date of the CA's application on behalf of their applicant;

(3) Description of project details;

(4) FAA office identification and their assigned PM;

(5) Initial familiarization requirements (typically based on standards/policy office guidance);

(6) CA certification basis (including applicable dates);

(7) Proposed FAA certification basis; and

(8) Project timeline (ref. 14 CFR § 21.17(c)).

d. Listed below are some additional validation plan items that may be considered depending on the scope and scale of the project.

(1) Listing of CA Issue Papers being accepted;

(2) Basic information on standards and policy differences (e.g., standards differences or Significant Standards Difference (SSD) listings);

(3) FAA requirements for additional technical conditions;

(4) Proposed compliance showings subject to FAA verification;

(5) FAA technical assistance;

(6) Assessment of CA request for technical assistance from the FAA (typically only for concurrent projects);

(7) FAA assessment for compliance determination with noise and environmental standards as applicable; or

(8) Project metrics or FAA/FCAA terms of reference (TOR) (may also be referred to in the context of guidelines).

e. Each validation plan must be approved by the project office, and any subsequent changes to it, must be coordinated with the project office's management prior to taking action. If more structure is needed, as determined by the project office, then a PSVP should be considered.

f. Based on guidance within the applicable Implementation Procedures, the project office should strive to limit its direct involvement only to the areas identified in the validation plan and must not review compliance determinations made by the CA during our validation effort unless otherwise justified and documented within the validation plan.

Note: Except as provided in the validation plan, the project office should generally accept CA compliance determinations, whether the FAA is involved in those determinations or not, as if they were made by the FAA. However, in rare instances it may not be possible due to extraneous international situations (such as significant FCAA personnel changes). Coordinate with AIR-400 for specific guidance in these rare situations. Also, applicants should be familiar with our bilateral Implementation Procedures document areas of exception, along with § 21.29.

g. Pursuant to higher level bilateral determinations and guidance materials, technical data may be reviewed, in addition to the CA certification activity, only when specific criteria are met in accordance with this order and/or the applicable Implementation Procedures – whichever is more appropriate.

h. In order to effectively and efficiently utilize AIR's limited resources, validation plans for applications disqualified under the streamlined validation process may focus only on those disqualifying features or characteristics. Any FAA technical involvement beyond these features or characteristics must be justified by an engineering assessment and approved by the project office's management within the validation plan.

3-7. Familiarization.

a. The FAA primarily uses the familiarization process to refine and finalize the validation plan. Familiarization aids the FAA by helping the project office:

(1) Finalize the FAA certification basis, including identification of any additional airworthiness, noise, fuel venting and emissions requirements relative to the CA certification basis, and

(2) Establish the level of review of compliance data, (may be further limited according to the applicable Implementation Procedures).

b. The FAA may request familiarization meetings (which may also involve more than one phase of the process) with the CA about the product or the major change to a product. Based upon the familiarization, the FAA may request additional familiarization in specific technical

areas to determine the FAA's level of review. It is recommended that all meetings are documented for inclusion into the final project record file.

c. All "familiarization" activities (i.e., activities conducted by the FAA acting as the VA in order to obtain a minimum level of project understanding) must be documented within the validation plan. Also, review the applicable Implementation Procedures for further guidance and/or limitations established by the FAA and our FCAA counterparts.

d. For evaluation of operational and maintenance aspects, the PM must also coordinate with the cognizant FAA Aircraft Evaluation Group (AEG) unless the applicable Implementation procedures specify otherwise. Depending on the scope and needs of the FV project, the AEG may need to participate in one or more of the familiarization meetings to ensure validation issues within their purview are addressed in a satisfactory manner.

e. The validation process recognizes and makes provision for the FAA to ensure a minimum acceptable level of product knowledge for issues related to operations and continued airworthiness (i.e., Continued Operational Safety (COS)). As such, the FAA project office may conduct familiarization flights as needed within the boundaries of the applicable Implementation Procedures. However, these familiarization activities are *not* always required by rule or guidance in most cases for the issuance of the validated TC/STC or approval of the major change to a validated TC/STC.

f. Unless documented in the validation plan and approved by the project office management, COS-specific familiarization activities should be completed *outside* of the critical path after the validated certificate is issued. In such instances, best practices would still dictate documentation and agreement by the VA and the CA in a manner acceptable to both parties.

3-8. Certification Basis for a Validated TC, STC, or Major Design Change.

a. The FAA will finalize the certification basis for the validated TC, validated STC, or major change to the type design of either certificate in the project validation plan.

(1) The certification basis for the validated TC, validated STC, or major change to the type design of either certificate is established by the FAA according to § 21.29. It consists of the sum of applicable airworthiness standards and environmental standards identified by the FAA, plus any exemptions, special conditions, and equivalent level of safety (ELOS) findings declared by the FAA.

(2) The FAA defines the additional technical conditions through a comparison of the FAA and CA certification bases in order to provide the basis for the CA certification statement required by § 21.29. It is important to note that when using the level of safety equivalent option of § 21.29, the additional technical conditions include significant standards differences established by the responsible standards staff level (not the project working level) through a comparison of airworthiness codes at the applicable amendment levels, and the outcome is documented in the validation plan. For projects which require § 21.101 considerations, the project office should reference as needed, FAA Order 8110.48, *How to Establish the Certification Basis for Changed Aeronautical Products*.

(3) The project office implements the standards differences defined by the product standards/policy office. If the amendment-pair list does not exist, contact the product standards/policy office for further guidance. It is not necessary or appropriate for individual standards of the CA to be reviewed to the individual FAA standards line-by-line at the project level.

(4) Previously addressed regulatory differences between the CA and FAA airworthiness standards, in which the FAA has determined that the CA's requirements provide a level of safety equivalent to the FAA's, may be used as the certification basis for the validated TC, validated STC, or approval of a change to either certificate. While mixing of the CA and VA certification bases are not prohibited, it may lead to unintended difficulties down the road when dealing with repairs and/or modifications (especially those involving FAA designees). For these reasons, consulting with the cognizant product standards/policy office is encouraged for any such scenarios where this approach is considered.

b. To determine the applicable amendment level of the airworthiness standards in accordance with § 21.17 (or § 21.101 as applicable), the FAA will use the date of application (otherwise known as the effective application date) made to the CA as the reference date it uses to establish the FAA certification basis. This is typical within many Implementation Procedures unless the cognizant FAA product standards/policy office determines there is a compelling safety-related reason (per § 21.21(b)(2)) not to do so.

c. A later date may be used for establishing the amendment level of the airworthiness standards, or the applicant may use the effective date of the related guidance or policy if either is elected by the CA's applicant. In situations where the FAA determines that an unsafe design feature would be addressed by using a later amendment level, then the later amendment must be used regardless of the date of application to the CA. Such a situation would require an additional technical condition and a Bilateral Relationship Management (BRM) record to be created by the project office.

d. To determine the applicable amendment level of the noise standards, refer to 14 CFR part 36 and the applicable Implementation Procedures. Generally, the part 36 amendment level is established based on the date of application to the CA. To determine the applicable amendment level of the fuel venting and exhaust emissions standards, refer to 14 CFR part 34.

e. The FAA PM may review the certification basis of the SoD TC or STC and determine if it is acceptable for use as the certification basis for our validated certificate. If the CA certification (cert) basis is available at the time of application to the VA, the VA PM should review the CA certification basis prior to initiating VA's certification basis.

f. Special conditions as defined in § 21.16 are only necessary under validation when our existing airworthiness standards do not contain adequate or appropriate safety standards for the aircraft, aircraft engine, or propeller because of novel or unusual design features of the product to be type certificated. Special conditions will not be used to *upgrade* the applicable airworthiness standards when novel or unusual design features are not involved. Special conditions contain additional airworthiness standards necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

(1) When conducting a FV project, do not confuse differences or non-harmonized regulatory items between the FAA and FCAA as requiring resolution via a special condition determination. Such differences between the authority's regulations must be identified, but identified as an additional technical condition (Ref. section 3-12) and not as a special condition.

(2) Special conditions can be used when developing the certification basis for changes to a product's type design. The phrase "novel or unusual" applies to design features of the product to be certificated when compared to the applicable airworthiness standards.

(3) Not all new or unusual FCAA items are treated as such by the FAA and vice versa. The FV project should identify such items within the validation plan but should not by default require any formal actions by the FAA. Each item in question should only require formal actions when it is deemed applicable according to § 21.16.

(4) If the FCAA is adopting a higher standard than that required by the minimum prescribed by the CFR amendment pair for the product, (such as a using a part 25 standard on a part 23 product), you should add that standard to the U.S. certification basis per the relevant guidance established by the cognizant product standards/policy office.

g. The FAA will strive to not change the certification basis once established unless:

(1) An unsafe condition is identified;

(2) A design change is proposed by the CA's applicant that is new or novel or is not sufficiently addressed by the existing certification basis;

(3) A design feature is identified that requires an FAA special condition per § 21.16;

(4) An exemption or ELOS is requested by the CA's applicant; or

(5) The CA's applicant elects to comply with later amendments.

3-9. Use of Issue Papers in FAA Validation.

a. The standard certification project issue paper (IP) guidance within Orders 8110.4 and 8110.112 and the documentation/resolution of validation differences is not the same process. In general terms, as the VA, the FAA will not use the IP process to document the certification basis, the determination of compliance, import country requirements, ELOS findings, special condition determinations, or exemptions to the regulations (i.e. G-1, G-2, G-4, etc.) unless directed to by the cognizant product standards/policy office or the applicable Implementation Procedures for specific projects.

(1) All FAA ELOS items (even those accepted via the CA's IP) must still be documented via an ELOS memorandum(s) in accordance with FAA Order 8110.112, *Standardized Procedures for Usage of Issue Papers and Development of Equivalent Levels of Safety Memorandums.*

(2) FAA Special Conditions typically still require a notice of proposed rulemaking (NPRM). Note that the wording from an IP for a proposed special condition will become the foundation for the wording of the NPRM published in the *Federal Register*. Refer to FAA Order 8110.4 *Type Certification*, for more details on these procedures.

(3) FAA Exemptions typically require a petition for exemption following the procedures for public comment on rulemaking that are described in 14 CFR part 11. Refer to FAA Order 8110.4 *Type Certification*, for more details on these procedures.

(4) The FAA should not duplicate CA issue papers (or other equivalent FCAA document) that establish an acceptable means of compliance that is also acceptable to the FAA. In these situations, the FAA should formally adopt the FCAA MoC into the FAA validation plan.

b. For FV projects, the FAA is expecting our FCAA counterparts to use their internal processes to document the resolution of all issues during their certification efforts. When these resolutions are a concern during the validation project, then an IP or another acceptable means to address our concerns may be appropriate at the discretion of the standards/policy office. This may happen concurrently or sequentially; however, the FAA should not use our resources on unnecessary duplicative efforts whenever possible.

Note: Where any of this directive conflicts with Order 8110.112A, dtd: 10/3/2014, then this Order takes precedence as it relates to type validation procedures. These procedures herein are the result of continued development with our bilateral partners to allow us to accept the CA's IPs (or their equivalents) in place of our FAA IPs.

c. As the VA, the FAA determines only the requirements needed to issue the validated TC/STC (not a typical TC/STC via our standard certification process). However, this is not to say that the FAA is discouraged to participate or coordinate with the CA for the resolution of any certification issues the project office is concerned about, including use of issue papers to establish an acceptable method of compliance (MOC) for design features or other aspects of the validation program for which suitable MOC are not available. The documentation of these concerns should be recorded in a method acceptable to the cognizant product standards/policy office or the applicable Implementation Procedures.

d. If there are any additional technical conditions or concerns not resolved as noted above, thus requiring the use of issue papers for items such as ELOS, special conditions, or exemptions, then the FAA PM will include the final determinations (i.e. findings and/or memos as appropriate) in the finalized documents for the validated TC/STC or major change to either.

3-10. Standards Differences.

a. It is important to the validation process that the FAA and the FCAA are aware of the differences in their respective airworthiness standards.

b. The FAA's and FCAA's standards may be determined by the cognizant policy office as equivalent despite instances where the standard's text differs extensively. In these instances, the FAA and FCAA standards typically will meet both of the following conditions to be equivalent:

(1) The standards must have the same regulatory objective (i.e. referring to the intent and application), and

(2) The standards must have equivalent technical requirements such that compliance with one standard would at least effectively be found compliant with the other.

c. Standards differences, which can also be referred to as a significant standards difference, between the FAA and some FCAAs typically result from differences between the intent and objective. It is important to note that standards differences cannot result from differences in advisory, methods of compliance, or guidance material.

Note: Multiple CA standards, taken together, may satisfy the objective of a single FAA standard. In such cases the standards should not be identified as a standards and policy difference. Instead the standards should be identified as a standards equivalency.

d. The differences in the standards should be documented in the validation plan to facilitate the CA making compliance determinations. Knowledge and documentation (typically in a list format) of differences should relieve the CA from having to undergo duplicative efforts.

e. A list of differences, or SSDs, in the FAA and CA standards and policies is developed and maintained by the appropriate product standards/policy office within the FAA and the CA.

Note: For some bilateral partners, standards differences are documented in a "compliance library" for safety emphasis items as defined and maintained per the applicable Implementation Procedures.

f. Differences are identified independent of any project considerations and are unique to a particular amendment-pair of standards.

g. Differences for the current standards will be updated as the FAA and CA standards are amended.

h. Differences should be published for future use by both authorities once they have been generated for an amendment-pair.

i. For some FV projects, especially for derivative products, the amendment-pair for the CA and FAA standards and policy may not have a set of published differences. In this case, the FAA PM must consult with the product standards staff to identify the differences for each identified amendment-pair.

j. The FAA will rely on the CA to ensure their applicant meets the FAA standards and related policy and guidance defined in the FAA certification basis, based on the identification of the differences in the standards, guidance, or policy.

k. If necessary, the FAA project office and/or standards staff will assist the CA to understand unique FAA requirements that are not addressed by the CA requirements. The FAA should coach the CA on acceptable MOC and provide them with all publications and documents that affect the compliance determinations. The use of an IP in this instance can be a valuable

tool to communicate the FAA's expected MOC for future projects at the discretion of the project office.

l. The FAA will not take any other action related to a standards and policy difference unless requested by the CA or there is at least an apparent concern for design compliance that could prevent completion of the FV project and certificate issuance.

3-11. Certification Planning within the Validation Process.

a. Any FAA technical review, such as an additional technical condition, FAA verification item or familiarization activity, during a validation program must be limited to the validation plan. If the FAA determines that review is needed for an area not previously included as a validation plan item, it should be justified and approved by the project office management.

b. All issues listed in the validation plan must be identified as one of the following:

(1) **Generic Certification Issues.** These are areas of FAA interest generally referred to in the past as "generic validation items" or "special emphasis items." For example, this includes areas where compliance findings have been inconsistent with existing standards or policies. Each product policy office will publish and periodically update a list of generic certification issues or validation items for all products under their purview. The FAA PM will identify applicable generic issues from this list during familiarization with the particular FV project.

(2) **New Technology.** This is technology that is new, as defined by the cognizant product standards/policy office, to either the CA or the VA as a whole, not just new to individual members of either authority. For instance, if the technology were used by the applicant applied to the same aircraft category unfamiliar to the PM but not the FAA, it would not be considered a new technology certification issue. However, if the technology was applied to a different aircraft category, then an assessment on that technology should be determined.

(3) **Novel Applications of Existing Technology.** This is where a particular technology is being used in a manner that causes the precepts of the technology to be questioned. Novel technology is defined by the cognizant policy office and may differ between products. However, it does not mean that existing technology being applied for the first time to a particular product line is automatically novel.

(4) **The Product Use is Unconventional.** This is where a product is being used for a purpose for which it was previously not designed as determined by standards/policy office guidance.

(5) **Potential Unsafe Condition.** A potential unsafe condition is one in which the product contains design features pursuant to 14 CFR § 21.21(b)(2) where experience with other products in service has shown an unsafe condition might occur in that product, even though compliance with the standards in the FAA certification basis can be demonstrated. Unsafe is measured with respect to the overall level of safety intended by the product FAA certification basis.

Note: This principle of "unsafe condition" should only be used to upgrade the level of safety of the product if the FAA has mandated, or will immediately mandate, that upgraded level of safety to other products with similar design features.

(6) **New Standard Interpretations or new MOC for the Existing Airworthiness Standards.** These are interpretations/MOC applied by the CA that are different from those already agreed to between the CA and the FAA. An interpretation of a method of compliance or standard would not be considered "new" if it had been applied previously in a similar context by both the FAA and the CA. The FAA's cognizant product standards/policy office must determine (or assist in the determination) all such standards interpretations.

(7) **Qualifying New FAA Standards.** When new airworthiness standards are adopted and any of the following apply:

- limited past experience by the FAA or CA with their application to a product, or
- they have an important impact on the whole product or a product's critical feature, or
- engineering judgment is required to establish compliance.

(8) **Exemptions.** These are subjects identified by the FAA or FCAA as potentially requiring an exemption from the FAA standards.

(9) **Equivalent Level of Safety Findings.** These are subjects identified by the FAA or FCAA as potentially requiring an ELOS finding to the FAA standards.

(10) **Special Conditions.** These are to be used only when our existing airworthiness standards do not contain adequate or appropriate safety standards for the aircraft, aircraft engine, or propeller because of novel or unusual design features of the product to be type certificated.

c. The level of FAA review for each validation project is the scope and depth of the VA's technical review and the requested supporting compliance documents. Follow the applicable Implementation Procedure for safety and/or risk-based considerations with possible streamlining approaches. For validation projects falling outside of such specific guidance, the FAA's level of review is contingent on the procedures herein for technical validation.

3-12. Additional Technical Condition.

a. An additional technical condition is a requirement within the validation process that we establish in addition to the SoD's airworthiness and environmental requirements. Additional technical conditions allow for a finding of "a level of safety equivalent" as stated within § 21.29.

b. For concurrent validations, the FAA may identify in the validation plan areas where we request that the CA focus on an additional technical condition. This is typically accomplished when the CA makes their compliance determination(s).

c. Unless otherwise defined within the applicable Implementation Procedures, additional technical conditions must meet one of the following requirements necessary for the FAA to

determine equivalence pursuant to § 21.29. To that point, the following items represent a complete listing in general terms.

(1) Significant differences in standards or amendment levels;

(2) ELOS findings;

(3) Special Conditions;

(4) Exemptions; or

(5) Environmental regulatory differences.

d. The validation work plan should contain information for the FCAA regarding the FAA's expectations for the areas of focus.

3-13. FAA Verification.

a. During technical familiarization, the FAA will 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 review the criteria that are impacted, to determine if issue papers are necessary, and to update the validation plan, if needed.

b. 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 project office management. An FAA decision to directly review a compliance document is typically reached through an exchange of information following identification of an issue. This exchange may take place through additional meetings following initial familiarization, correspondence (possibly in the context of an established issue paper, or other interactions). A compliance document in this context is any test report or other document that directly supports a determination of compliance. Direct participation in compliance testing, including test witnessing, is also considered an FAA verification activity that must be justified under this section. The FAA may verify only compliance determinations made by the CA when justified within the applicable Implementation Procedures, or absent that under this section, documented in the validation plan, and approved by the project office management. Approvals may be coordinated with the product standards/policy office as needed.

c. Situations in which the FAA reviews test reports, compliance reports or participates in inspections or tests and then defers the compliance determination to the CA are considered verification and therefore should be justified under this section.

Note: Even when the FAA verifies a compliance determination, the CA is still the responsible authority for making the actual compliance determination.

d. Justification typically falls into one of the following areas:

(1) A pre-existing memorandum from AIR-400 authorizing verification based on the status of the bilateral relationship;

(2) A pre-existing memorandum from the product's standards office authorizing verification of specific technical areas;

(3) The Implementation Procedures of the bilateral agreement with the CA;

(4) New or novel features that would require a special condition under § 21.16;

(5) New amendment level per § 21.101 where the CA is finding compliance for the first time;

(6) Sensitive issues (i.e. associated with an accident or incident on a product with similar design features);

(7) New methods of compliance;

(8) Items related to the 14 CFR parts 34 and 36 environmental rules; or

(9) Operational considerations leading to a basis for conflicting FAA/CA guidance and/or operating limitations.

e. In the absence of justification or authorization, the project office must defer the remaining compliance determinations to the CA without FAA verification.

f. All FAA verifications must be coordinated with the CA through the validation plan and conducted by the project office in addition to the CA compliance determination. Understand that there may be follow-on request for clarification or justification made by the CA when the FAA seeks verification that falls outside the previously established parameters of the Implementation Procedures. These requests must be addressed by the project office. Support from AIR-400 on these requests is available if needed.

g. FAA personnel should never sign any specific legal agreements from the CA and/or their applicant without first consulting their office of regional counsel.

3-14. FAA Technical Assistance.

a. The FAA may provide technical assistance to the CA with any compliance determination identified in the bilateral agreement's Implementation Procedures.

b. The FAA may make compliance determinations, in support of the CA, if—

(1) Such action is requested by the CA, or

(2) Documented within a work-sharing agreement pursuant to the applicable Implementation Procedures.

c. The FAA should provide any relevant information to the CA regarding our determinations of acceptable methods of compliance.

Note: The FAA should include, along with any other guidance provided to the CA, a statement that the CA should specifically request assistance from the FAA if our existing guidance on methods of compliance is incomplete or unclear.

d. The FAA may witness tests or conduct tests or inspections on behalf of the CA to support their compliance determinations to the certification basis established by the FAA.

e. The CA is responsible for making the final compliance determination(s) even when the FAA supports the CA in making a compliance determination. The FAA will provide our assistance in the manner defined within the applicable Implementation Procedures.

3-15. Compliance Determination to Emission Standards.

a. The compliance determination to part 34, *Fuel Venting and Exhaust Emission Requirements for Turbine Engine Powered Airplanes*, must be made in accordance with the procedures defined in the applicable Implementation Procedures. When this is not covered by the Implementation Procedures, follow the process in this section.

b. If a CA is authorized by an Implementation Procedures or other FAA policy to make a compliance determination to part 34 on behalf of the FAA, then the project office may only be involved in the compliance determination if justified under the criteria for FAA verification per sect. 3-13 of this order. The FAA must notify the CA when the FAA verification activity is complete.

c. For any changes to the Type Design (prior to the issuance of any amended TC, STC, or amended STC), a verification of whether the change constitutes an emissions change, in accordance with § 21.93(c), must be considered if the modified design needs to have compliance with part 34 substantiated again.

3-16. Compliance Determination to Noise Standards.

a. Aircraft must comply with 14 CFR part 36, *Noise Standards: Aircraft Type and Airworthiness Certification*, before the FAA issues certain TCs, amended TCs, or STCs.

(1) Some type certification actions may require the FAA to conduct an environmental analysis. See FAA Order 8110.4, *Type Certification,* paragraph 7-4 for more information on this requirement.

(2) Before issuing any new aircraft TC, the FAA must conduct a finding per the Noise Control Act of 1972 as amended by 49 U.S.C. Section 44715. The FAA must conduct this finding regardless of whether the aircraft complies with part 36 or the National Environmental Policy Act (NEPA). FAA Order 8110.4, *Type Certification,* Paragraph 7-3 provides more information on the Noise Control Act.

b. The compliance determination to part 36, *Noise Standards: Aircraft Type and Airworthiness Certification*, must be made in accordance with the procedures defined in the applicable Implementation Procedures.

c. For any changes to the Type Design (prior to the issuance of any amended TC, STC, or amended STC) a documented record of verification of whether the change constitutes an acoustic change, in accordance with § 21.93(b), must be considered if the modified design needs to have compliance with part 36 substantiated again.

3-17. Compliance Data

a. The FAA may only request compliance documents (i.e. design or substantiation data) to verify a CA compliance determination, or to support the CA in making the compliance determination when requested to do so via technical assistance or when justified according to paragraph 13 of this chapter. These items must be identified within the project's validation plan once identified.

b. If the CA and/or their applicant is unwilling or hesitant to share any necessary data for completing our validation process based on the position of that data being proprietary, review the applicable section of the Implementation Procedures for further guidance. If there is no specific guidance within the applicable Implementation Procedures, then contact AIR-400 for support *prior* to moving forward. This stipulation applies on a project-by-project basis.

c. Unless otherwise directed by the applicable Implementation Procedures, these documents may be accepted, at the discretion of the PM, in electronic formats per FAA policy and guidance within Order 8000.79, *Use of Electronic Technology and Storage of Data*. It is typical that such data is managed in the English language and stored via at least a basic memorandum of agreement (MOA) and/or data retention agreements between the VA and CA.

3-18. Coordination with AIR-400.

a. The FAA PM is encouraged to make recommendations regarding changes to the Implementation Procedures based on experience gained during a project. The Bilateral Relationship Management feedback form (AIR-002-025-F1) established by AIR-400 is the preferred method for recording this information. Furthermore, coordinate FV project data using the certification project notification (CPN) tool and a local work tracking systems. Contact AIR-400 as needed for additional guidance or information.

b. Recommendations to AIR-400 could include—

(1) Items for no FAA involvement when the Implementation Procedures or other policy requires FAA involvement,

(2) Items for FAA involvement when Implementation Procedures or other policy does not require involvement, or

(3) Proposed regulatory, policy, or guidance harmonization tasks.

c. Recommendations will help the FAA, as a whole, manage the systems safety approach for validations. Furthermore, such input will greatly facilitate the accuracy of information AIR shares with our bilateral partners via our numerous outreach efforts aimed at improving foreign relations and strengthening the FAA's globalized position as the industry leader.

d. The FAA is expected to continue to rely on the CA for similar compliance determinations on future projects, once the CA has successfully demonstrated to the FAA that it can find compliance to the FAA standard. It is important for the PM to relay information on successful or unsuccessful validations efforts to AIR-400 via the BRM process.

3-19. Approval of Manuals and Changes to Manuals.

a. In lieu of specific provision within superseding Implementation Procedures guidance, all flight manuals or flight manual supplements signed by the CA may be referenced on the FAA validated TC or validated STC, and are considered FAA approved when the validated TC, validated STC or change to either certificate is issued.

b. The FAA may only review flight manuals or flight manual supplements if justified under the criteria for FAA verification per section 3-13. Once justified, the FAA must notify the CA when the FAA review is complete.

c. For changes to previously FAA-approved manuals we do not require a validation plan. However, these projects should still be entered into a work tracking system or CPN within the office to ensure complete metrics are recorded and briefed to senior management when necessary.

3-20. Acceptance of Instructions for Continued Airworthiness.

a. ICAs accepted by a CA in accordance with the applicable Implementation Procedures may be referenced on the FAA TC, STC or change to those certificates, and are usually considered accepted by the FAA when the validated TC, validated STC or change to either certificate is issued. Consider that if the ICA's are not complete at the time of validation approval, a note stating such in the TCDS may be appropriate at the discretion of the standards/policy staff.

b. If a CA is authorized by an Implementation Procedure or policy to accept ICAs on behalf of the FAA, they must only be reviewed by the FAA if justified under specific Implementation Procedures criteria or as described for FAA verification per section 3-13 of this Order.

Note: As per any other FAA-issued design approval, Flight Manual (FM), Flight Manual Supplements (FMS) and ICA Airworthiness Limitation Sections (ALS) are approved by the FAA, or an appropriately delegated designee, or in the case of FV projects, by our FCAA partner as allowed by the applicable Implementation Procedures and agreed to by the cognizant project office.

c. The PM must coordinate all ICA documents and any other items identified in the validation plan that affect operational regulations, such as 14 CFR parts 91, 121, 125, 133 or 135 with the appropriate FAA flight standards Aircraft Evaluation Group. The AEG will generally conduct Boards and consult with its FCAA counterpart, as appropriate, to review the following items on FCAA products prior to their entry into U.S. operations: maintenance review board (MRB) Report and associated ICA documentation; operational configuration; pilot training and

licensing requirements; and the formulation and approval of a master minimum equipment list (MMEL).

d. While compliance with AEG requirements is not mandatory for issuance of the FAA's validated TC, validated STC or approve a major change to either certificate, the project office should highly recommend the FCAA and their applicant to address any AEG requirements as early into the FV project as possible.

3-21. Issuance of U.S. Validated Type Certificate.

a. Pursuant to § 21.29, the compliance statement from the CA to the FAA approved certification basis allows the FAA to issue a validated TC, validated STC or approve a major change to either certificate.

b. When the validation is streamlined, the FAA will issue a validated TC/STC (or reissue/amend as applicable) in accordance with the Implementation Procedures.

c. When a validation plan is used, the FAA may issue a validated TC/STC (or reissue/amend as applicable) when:

(1) The CA has issued a TC, STC, or approved the change for the product, and

(2) The CA has issued a statement of compliance to the U.S. type certification basis as follows:

> "The {CA} certifies that the {Specific product type and model} complies with {either the FAA airworthiness standards or the CA airworthiness standards and a list of any identified additional requirements} as identified in {Reference Document} dated {Date}."

d. A validated TC or validated STC and all FAA Type Certificate Data Sheets (TCDS) must be prepared as described for an import product (per § 21.29) in accordance with FAA Orders 8110.4, *Type Certification* and 8110.121, *Type Certificate Data Sheet (TCDS) Notes*.

e. The certification basis for the product identified on the TCDS or the STC must include:

(1) The amendment level of the FAA airworthiness standards as determined under § 21.17 or § 21.101, and all exemptions issued by the FAA, ELOS determinations made by the FAA, and special conditions issued by the FAA, for the product or change to the product, or

(2) The amendment level (or equivalent) of the CA airworthiness standards, plus all additional technical conditions that were determined by the FAA to be a level of safety equivalent to the requirements documented in (e)(1) of this section. If this option is chosen, the project office is encouraged to also incorporate the FAA-specific information from (e)(1) for clarity purposes.

f. Reference Appendix H of this guidance for a sample validation approval notification letter. While this is not a requirement, it may be useful to assist the project office in keeping the applicable CA and their applicant informed of the project's status.

3-22. Changes to Type Design – Post Validation Approval.

a. Changes to a validated TC/STC must continue to comply with the FAA certification basis and must be documented in a manner acceptable to the FAA. Classification of these changes is pursuant to §21.93 in the same manner as a domestic certification TC/STC. Unless otherwise directed by the applicable Implementation Procedures, follow the guidance within this chapter.

b. The FAA must approve all major changes to the type design of a validated TC/STC. However, minor changes to the type design of a validated TC/STC may be approved under a method acceptable to the FAA before actually submitting to the FAA any substantiating or descriptive data.

Note: All changes to an actual certificate must be approved by the FAA directly.

(1) Major changes to a type design pursuant to § 21.97 are approved under either an amended TC/STC or a new STC as applicable. The procedures for design changes are the same as that for an original TC/STC. However, there may be superseding guidance established within the applicable Implementation Procedures.

(2) Minor changes to a type design pursuant to § 21.95 may be approved by the CA on behalf of the FAA (or under another method acceptable to us). Such arrangements must be defined via a signed agreement between the authorities typically within the applicable Implementation Procedures.

c. The approval of a major change to the type design of either a validated TC or a validated STC can be documented by letter provided a revision to the validated TC or validated STC is not required. Ref. Appendix G for a sample of this letter.

3-23. Use of Individual Designees or Organization Delegation Authorization (ODA). Individual designees or ODAs are never permitted to represent the FAA within our capacity as the VA. In all cases, the FCAA provides the FAA with the FV application directly. The FAA may then involve our individual designees or ODAs at our discretion. You may reference additional guidance within Order 8100.8, *Designee Management Handbook;* Order 8100.15, *Organization Designation Authorization Procedures;* or Order 8000.95, *Designee Management Policy,* as applicable.

3-24. Transfer of a Validated Certificate.

a. The FAA allows for the State-to-State transfer of a validated TC/STC when the FAA has established Implementation Procedures or a special arrangement which covers this process.

b. Transfers of a validated TC/STC follow the same process as their domestic counterparts as documented in Order 8110.4, *Type Certification*.

c. Contact AIR-400 for any project-specific concerns or if additional guidance on this topic is needed.

3-25. Records Management.

a. Inbound validated TC/STC projects are not substantially different from their domestic counterparts in regard to records management and data retention requirements per 14 CFR 21.31, § 21.41, and Order 1350.14, *Records Management*.

b. All information received, created, or compiled by the officers and employees of the Federal Government for the use of the Government constitutes official Government records and is therefore the property of the U.S. As per the documents cited above, there are strict guidelines for the management and maintenance of such records. Within the FAA, information that constitutes official government records includes the following:

(1) Application records;

(2) CPN and/or work tracking records;

(3) FAA validation plan records;

(4) Required familiarization items;

(5) FAA certification plan;

(6) Additional technical condition items;

(7) FAA verification items;

(8) Conformity items;

(9) FAA approval/issuance records;

(10) FAA internal determinations (i.e. AIR/AFS required correspondences); and

(11) Copy of final validated certificate.

c. Availability of these records is required per § 21.49.

d. The CA, at the PM's discretion, may retain portions of these data on behalf of the FAA. Data retention agreements must contain at least the basic items herein:

(1) Cover page containing the title of the data retention agreement, including company name, effective date, and revision(s) information;

(2) Signatures of representatives from both the FAA and the FCAA. The FAA representative must be the manager;

(3) A brief description of the purpose, scope, and procedures of the agreement;

(4) Information on effectivity of the document, including information on revisions approvals and cancellation procedures;

(5) Type of data submittal and format; and

(6) CA data safeguard measures.

Chapter 4. Obtaining Foreign Authority Approval/Acceptance of U.S. Products and Changes to U.S. Products

4-1. General.

a. This chapter provides directive information on the FAA's responsibilities as the CA for all outbound FV projects. This process must be followed in its entirety unless otherwise modified or supplemented via the applicable Implementation Procedures between the FAA and our FCAA partner.

b. The FAA must process each outbound application from a U.S. design approval holder (or applicant, for concurrent projects) to a foreign authority in order to export their product to another country or to manufacture their product in another country.

c. The FAA should inform the U.S. design approval holder, seeking foreign validation, to review the bilateral agreement implementation procedures (if applicable) and Advisory Circular 21-52 in order to be prepared to support the FV project.

d. All outbound FV projects:

(1) Must be tracked (typically via a basic office work tracking system);

(2) Must be entered into the national CPN web tool;

(3) Must have a unique project number (should tie back to the original FAA project number and/or certificate number when possible); and

(4) Must have an assigned PM.

Note: No feedback or otherwise technical involvement from AIR-400 is intended by this guidance unless specifically requested by the PM.

e. To minimize duplicative efforts, the FAA should offer in writing (email or official letter) to act on behalf of the VA. Therefore, the FAA finds compliance to our airworthiness standards and, when the FCAA agrees, also makes compliance determinations to the VA's airworthiness standards.

f. Applications, with the FAA project number or FAA certificate number highlighted, must be transmitted from the project office to the VA even if no bilateral agreement exists. Bilateral agreements are not required for a U.S. design approval holder to export a product. In these situations, coordination with AIR-400 is highly encouraged for ensuring timely and accurate protocols are followed. At a minimum this coordination should entail an email notification to the cognizant AIR-400 country manager. AIR-400 will not have a role in any technical determinations outside the request from the project office.

g. Regarding shipping the application and/or supporting data, our applicant may not use our resources for their business purposes. The FAA is responsible for transmitting the

application in the manner requested by the VA. However, the transmittal of additional supporting data as requested by the VA is the responsibility of our applicant. Reference section 4-5 below for request involving substantiation data.

Note: Validation on FAA exported products is not universally applied. Some FCAAs have adopted alternate approaches for imported FAA products. Some authorities, for example, do not issue a TC for products with an FAA TC. This is commonly known as "type acceptance." These authorities familiarize themselves with the type design so they can capably oversee the aircraft when it is added to their registry.

4-2. FAA Procedures as the CA. The FAA office must follow FAA Order 8110.4, *Type Certification,* when the VA requests the FAA to make compliance determinations to the certification basis they establish. The project office should request any policy or guidance from the VA that is necessary for the FAA to make the compliance/safety findings on their behalf.

4-3. Establishing an FV Project.

a. The project office for the activities in this chapter is defined by FAA Order 8100.5, *Aircraft Certification Service – Organizational Structure and Functions*.

b. Upon receipt of an application for the outbound validation of a TC, an STC, or approval of a major change to either certificate, the FAA project office will enter all relevant information into a tracking system and assign a PM.

c. The project office must obtain an FV project number and coordinate the project within the FAA using FAA Order 8110.115, *Certification Project Initiation and Certification Project Notification* and the CPN tool. When possible, the original FAA project number within CPN should be referenced, and any related FAA certificate should be noted within the new FV project.

4-4. Use of Individual Designees or Organization Designation Authorization.

a. The FAA may use individual designees such as a Designated Engineering Representative (DER), a Designated Manufacturing Inspection Representative (DMIR), a Designated Airworthiness Representative (DAR), or an Organization Designation Authorization (ODA) when determining compliance to the VA standards. Reference the applicable Implementation Procedures for additional or superseding guidance on this subject.

b. Individual designees or ODAs must have proper authorization to determine compliance on behalf of the FAA acting for the validating FCAA. This includes authorization to make findings to foreign airworthiness requirements even when those requirements may differ from the CFRs. Reference additional guidance within Order 8100.8, *Designee Management Handbook*; Order 8100.15, *Organization Designation Authorization Procedures*; or Order 8110.37, *Designated Engineering Representative (DER) Handbook,* as applicable.

c. FAA conformity inspections may also be completed by appropriately delegated individual designees or ODAs in lieu of discreet FAA actions. The use of the National Automated Conformity Inspection Process (NACIP) is preferred; however, a hardcopy of FAA

Form 8120-10, *Request for Conformity*, may still be used to request an inspection. For any projects that require flight testing, use FAA Form 8110-1, *Type Inspection Authorization*. FAA Designees may use their FAA approved systems and procedures also.

d. Individual designees and ODAs are not permitted to represent the FAA without our approval. Some ODAs may be permitted to interact directly with a VA but the FAA project office must always have a minimum level of awareness at their discretion. In most cases, the individual designee or ODA provides the FAA with the information and the FAA then communicates in writing (email or official letter) the FV application or additional data to the VA as if the FAA had made the compliance determination or conducted the inspection itself pursuant to the guidance within this chapter or the applicable Implementation Procedures.

4-5. Requests for Substantiating Data by a VA.

a. If a validating authority requests substantiating data from a U.S. design approval holder, the FAA must:

(1) Request the VA to provide the basis for their need for the substantiating data if those data fall outside the previously agreed to stipulations of the applicable Implementation Procedures (if one is in place), and

(2) Remind the VA that as the SoD, we will make all compliance determinations on behalf of the VA, unless the Implementation Procedures specify otherwise.

b. Reference AC 21-2 *Complying with the Requirements of Importing Countries or Jurisdictions When Exporting U.S. Products, Articles, or Parts*, for additional information when such a request is made. Coordination with the cognizant AIR-400 country manager is highly recommended whenever an FCAA is perceived to be overstepping their boundaries agreed to within the Implementation Procedures.

c. When no Implementation Procedures exist, or do not contain adequate guidance on this issue, the FAA must follow the established import requirements for the SoR in question.

(1) The FAA website (http://www.faa.gov/aircraft/air_cert/international/) contains a listing of the bilateral agreements as well as the Appendix 2 listing of requirements that have been submitted to the FAA by importing countries or jurisdictions.

(2) Information on substantiating data sent to a VA that falls outside the established Implementation Procedures and/or importing requirements must be documented in a BRM report or coordinated with AIR-400.

d. Refer to paragraph 4-8 of this Order when concerns for the protection of proprietary or sensitive data arise.

e. Conflicts may occur that involve issues such as requesting inappropriate data or items not otherwise covered within the project's defined validation plan. The FAA project office should attempt to resolve these conflicts at the lowest possible levels prior to raising them up to

their division management, standards/policy staff, or higher AIR-level executives. Such processes are usually defined within the cognizant division's operating/working procedures.

4-6. Making a Certifying Statement.

a. If requested by the VA or required within the applicable Implementation Procedures, the FAA project office will make a certifying statement that the product or change to the product complies with the requirements defined by the VA. This statement is to be documented via an official FAA letter from the cognizant office to the VA point of contact. Reference Appendix H of this guidance for a sample letter format.

b. The statement may only be made once the FAA has determined the TC/STC or change to either certificate complies with the certification basis established by the VA. Compliance may be found as described below unless directed differently within the applicable Implementation Procedures:

(1) Directly by the FAA,

(2) By our designees or an ODA on our behalf, or

(3) Based on applicant-only showings to which the FAA policy and processes have found compliance.

c. The statement must be signed by the project office manager, or delegated signature authority under FAA Order 1100.154A, *Delegations of Authority,* and contain the following information.

> "The Federal Aviation Administration certifies that the {Specific product type and model} complies with the {VA's} Certification Basis as identified in {Reference Document} dated {Date}."

d. If the VA requests more information not based on any guidance herein or within the applicable Implementation Procedures, contact AIR-400 before making any further statements.

4-7. Changes to Type Design – Post Validation. The FAA will support, as requested by the VA, the review and approval of changes to a validated FAA TC/STC on their SoR. Provisions for this type of project should be covered within the applicable Implementation Procedures. Contact AIR-400 for guidance if this is not the case.

4-8. Protection of Proprietary Data.

a. Bilateral agreements commit the FAA to provide timely information to a bilateral partner authority. Consult the bilateral agreement and Implementation Procedures for guidance on how to handle proprietary data. If the bilateral agreements have protections of proprietary data, we may share that data if it's needed to support the validation activities.

b. If no Implementation Procedures are in place or they are silent on this issue, contact AIR-400 for support *prior* to moving forward on the project. This stipulation applies on a project-by-project basis.

c. FAA personnel should never sign any specific legal agreements from the VA or our applicant without first consulting their office of regional counsel.

d. When an FCAA requests information that may be considered Sensitive Security Information (SSI), contact AIR-400 for support. AIR-400 is the responsible FAA office for processing these requests. Reference Appendix C for definition of SSI.

e. For U.S. government export control considerations, the project office should reference the applicable guidance within FAA Order 1240.13, *FAA Export Control Compliance,* and any supplemental guidance found at https://my.faa.gov/org/staffoffices/apl/offices/api.html.

4-9. Records Management.

a. Outbound FV projects require only a minimal amount of data being retained to meet the stipulations for managing official governmental records pursuant to part 21. The majority of the official records are maintained within the original domestic certification project file.

b. At a minimum, the FAA office should keep and file all records related to:

(1) The application from the FAA to the VA;

(2) CPN and/or work tracking;

(3) FAA/designee approval records as applicable;

(4) Validation plan information (if the FAA was officially involved); and

(5) VA Approval/issuance records (if provided back to us from the VA).

Chapter 5. Continued Airworthiness

5-1. General. When a FV project is concluded, the VA and CA project offices should set up a process for feedback and/or continued communication (including specific focal points) on service difficulties, trends, and general experiences with the product. Typically, guidance on mutually acceptable practices is described within the specific Implementation Procedures. However, for countries where there are no such agreements, or for countries with which our agreements are either outdated or inactive, contact AIR-400 and the cognizant product standards/policy office for support on this process.

5-2. FAA as the VA.

a. The FAA must coordinate with the CA to resolve continued airworthiness issues directly related to an accident or incident that occurred within the United States. The FAA relies on the CA as SoD to resolve continued airworthiness issues to the maximum extent possible. Review the applicable Implementation Procures for the FCAA specific processes.

b. The FAA must assess mandatory continued airworthiness information (MCAI) approved by the CA to determine if an FAA AD should be issued. Reference FAA Order 8040.1, *Airworthiness Directives,* and Order 8040.5, *Airworthiness Directive Process for Mandatory Continuing Airworthiness Information,* for additional guidance.

(1) If an Alternate Method of Compliance (AMOC) of general applicability to an existing AD is issued by the CA for its own SoD products, appliances, or parts, the CA should notify the FAA of their decision per the applicable Implementation procedures. Contact AIR-400 if support or alternate communication with the CA is needed.

(2) The FAA must review all AMOCs communicated by the CA and assess their applicability to the associated products on the FAA's registry. Furthermore, the FAA must approve all AMOCs to an FAA AD in accordance with 14 CFR §39.19. Upon approval, the FAA shall write an AMOC approval letter for U.S. operations pursuant to the established guidance.

5-3. FAA as the CA.

a. As the authority for the United States when we are the SoD, the FAA will monitor the continued airworthiness issues of FAA products worldwide and issue ADs when necessary.

b. The FAA must inform each FCAA of all FAA mandatory actions, including those resulting from reports under § 21.3 on aircraft within each FCAA's jurisdiction (typically SoR) and articles fitted on such aircraft. Review the applicable Implementation Procedures for any specific coordination procedures. Also note that AIR-400 has published quality management system (QMS) document AIR-001-030-W1, *AIR Continued Airworthiness Notification to the International Community (CANIC)*. This document contains the standard AIR-level process to notify FCAAs of significant safety actions and potential airworthiness concerns that affect the

international aviation community. Additional information on FAA processes may also be found in FAA-IR-M 8040.1C, *Airworthiness Directives Manual*.

c. The FAA, in coordination with the design approval holder, must assist FCAA investigations of airworthiness issues for TC's or STC's for which the United States is the SoD. This support includes, but is not limited to, giving an FCAA—

(1) Status of any FAA airworthiness investigations;

(2) Status of FAA plans for AD actions within ex-parte considerations; and

(3) In cases of an immediate safety need, timely access to related design data and other certification documents as requested by each FCAA.

d. If an AMOC of general applicability to an existing AD is issued by the FAA for our SoD products, appliances, or parts, the issuing office must follow the associated guidance contained in FAA Order 8110.103. Also, reference additional guidance on this subject within the applicable Implementation procedures.

5-4. Ongoing Protection of Proprietary Data.

a. If necessary to support Continued Operational Safety activities or other maintenance of confidence activities, at least an email referencing *this* section of the order *and* the applicable Implementation Procedures section for the "Protection of Proprietary Data" or its equivalent must be sent by the FAA PM and acknowledged by the FCAA prior to any transmission of data.

Note: While no official letters or memos are required, they may be appropriate as determined by the FAA PM and/or their FCAA counterpart depending on the project specifics.

b. If no procedures are in place between the authorities, further determinations must be coordinated between the FAA, our applicant and the FCAA. Contact AIR-400 for support and guidance in these instances.

c. For U.S. government export control considerations, the FAA PM must reference the applicable guidance within FAA Order 1240.13, *FAA Export Control Compliance,* and any supplemental guidance found at https://my.faa.gov/org/staffoffices/apl/offices/api.html.

Chapter 6. Administrative Information

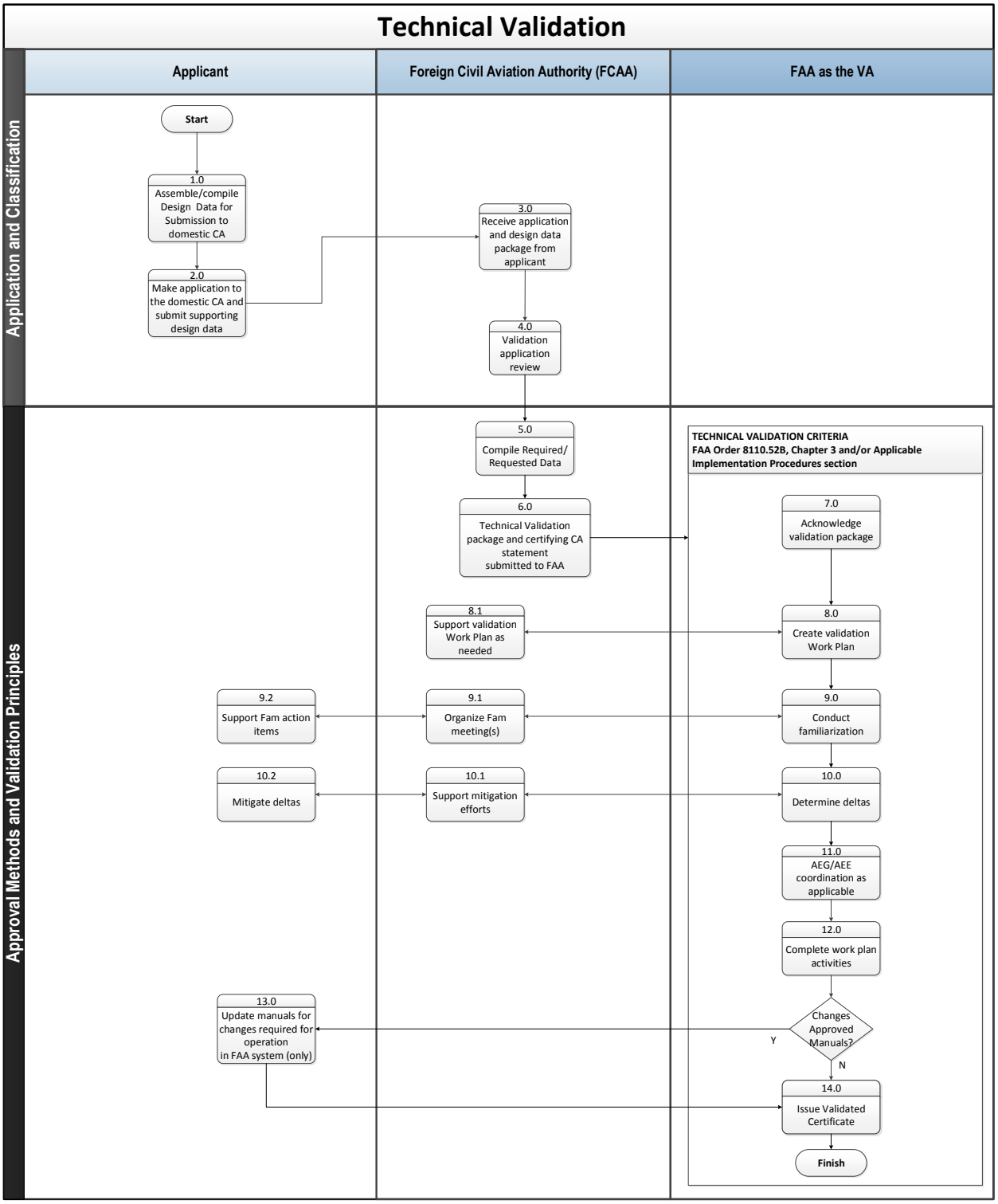
6-1. Authority to Change This Order. The issuance, revision, or cancellation of the material in this order is the responsibility of the Aircraft Certification Service, International Policy Division (AIR-400).

6-2. AIR-400 International Division Points of Contact The International Division's physical and mailing address, phone numbers, global email and staffing information can be found at https://my.faa.gov/org/linebusiness/avs/offices/air/div_dir/air40/staff_list.html.

6-3. Suggestions for Improvement. Please forward all comments on deficiencies, clarifications, or improvements regarding this order to: 9-AWA-AVS-AIR-DMO@faa.gov or complete the form online at https://ksn2.faa.gov/avs/dfs/Pages/Home.aspx. FAA Form 1320-19, Directive Feedback Information, is located as Appendix K to this order for your convenience. If you urgently need an interpretation, contact AIR-400 at 202-267-0908. Always use Form 1320-19, in Appendix J, to follow up each verbal conversation.

6-4. Records Management. Refer to FAA Orders 0000.1, *FAA Standard Subject Classification System*; 1350.14, *Records Management*; or your office records management officer or directives management officer for guidance regarding retention or disposition of records.

Appendix A. Validation Project Flow Charts



Appendix B. Acronyms

Acronym	Definition
14 CFR	Title 14 of the Code of Federal Regulations
AC	Advisory Circular
ACO	Aircraft Certification Office
AD	Airworthiness Directive
AMOC	Alternate Method of Compliance
AEG	Aircraft Evaluation Group
AFM	Airplane Flight Manual
AIR	Aircraft Certification Service (under Aviation Safety (AVS))
AIR-400	FAA's International Policy Division for AIR
ALS	Airworthiness Limitations Section (within Instructions for Continued Airworthiness)
AML	Approved Model List
ASTC	Amended Supplemental Type Certificate
ATC	Amended Type Certificate
AVS	FAA line of Business for Aviation Safety
BAA	Bilateral Airworthiness Agreement
BASA	Bilateral Aviation Safety Agreement
BRASS	Bilateral Relationship Assurance and Standardization System (AIR only)
BRM	Bilateral Relationship Management
CA	Certificating (Certifying) Authority

Acronym	Definition
CAA	Civil Aviation Authority
CFR	Code of Federal Regulations
CoA	Certificate of Airworthiness
CMACO	Certificate Management Aircraft Certification Office
COS	Continued Operational Safety
DAH	Design Approval Holder
DAR	Designated Airworthiness Representative
DER	Designated Engineering Representative
DMIR	Designated Manufacturing Inspection Representative
EASA	European Aviation Safety Agency
ELOS	Equivalent Level of Safety
FAA	Federal Aviation Administration
FCAA	Foreign Civil Aviation Authority
FMS	Flight Manual Supplement
FV	Foreign Validation
ICA	Instructions for Continued Airworthiness
ICAO	International Civil Aviation Organization
IPA	Implementation Procedures for Airworthiness
MIDO	Manufacturing Inspection District Office
MIO	Manufacturing Inspection Office
MOC	Method of Compliance
PACO	Project Aircraft Certification Office

Acronym	Definition
PAH	Production Approval Holder
PM	Project Manager
QMS	Quality Management System
RGL	Regulatory and Guidance Library
SC	Special Condition
SIP	Schedule of Implementation Procedures
SoD	State of Design
SoM	State of Manufacture
SoR	State of Registry
SSD	Significant Standards Difference
SSI	Sensitive Security Information
STC	Supplemental Type Certificate
TC	Type Certificate
TCDS	Type Certificate Data Sheet
TIP	Technical Implementation Procedures (FAA and EASA only)
U.S.C.	United States Code
VA	Validating Authority
WP	Working Procedures

Appendix C. Definitions and Terms

When following procedures in this order, the following definitions and terms apply. Note there are also applicable definitions and terms contained within related orders (emphasis on Order 8110.4 for certification terminology) highlighted in Appendix I of this document:

C-1. Aircraft Certification Office (ACO) is 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.

Airworthiness Limitations Section (i.e., "Airworthiness Limitations") is the title required by product airworthiness standards (i.e. for large transport aircraft, 14 CFR part 25 appendix H, §§ H25.4(a) and (a)(2)) for the section of the Instructions for Continued Airworthiness.

C-2. Airworthiness Standards are the regulations, requirements, airworthiness codes or other certification specifications governing the design and performance of civil aeronautical products and articles.

C-3. Approved, unless used with reference to another person, means approved by the FAA or any person to whom the FAA has delegated its authority in the matter concerned, or approved under the provisions of a bilateral agreement between the United States and a foreign country or jurisdiction.

C-4. Additional Technical Condition is a requirement of the importing country or jurisdiction that is in addition to the applicable airworthiness and environmental requirements of the State of Design or that may be prescribed:

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

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

C-5. Bilateral Relationship Assurance and Standardization System (BRASS) is the data-informed tool for evaluating the health of our bilateral relationships. It relies on all Aircraft Certification Service employees to input information on their dealings with our FCAA partners to provide the data to evaluate these partners.

C-6. Bilateral Relationship Management (BRM) is an official Aviation Safety (AVS) Quality Management System feedback record as defined under AIR-002-022-F1. This record is utilized by AIR-400 via BRASS as one of several confidence-keeping tools to support new and continued efforts between the FAA and our bilateral partners.

C-7. Certificating (Certifying) Authority (CA) is the FAA for design approvals that are U.S. State of Design; -or- is the applicable foreign civil aviation authority when fulfilling State of Design functions for design approvals outside the U.S.

C-8. Certification Basis consists of 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.

C-9. Compliance Determination is the determination, by either the CA or the VA, that the applicant has demonstrated compliance with identified, individual airworthiness standards.

C-10. Compliance Finding is the official act by which the responsible authority makes a legal finding that the applicant has demonstrated compliance with all the applicable airworthiness and environmental standards.

C-11. Continued Operational Safety (COS) 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.

C-12. Design approval means a type certificate (including amended and supplemental type certificates).

C-13. Exemption is a grant of relief from the requirements of a current regulation pursuant to 14 CFR part 11.

C-14. Equivalent Level of Safety Finding (ELOS) or Equivalent Safety Finding (ESF) is a finding that alternative action taken provides a level of safety equal to that provided by the standards for which equivalency is being sought.

C-15. Familiarization is the process whereby the validating authority obtains information and experience on a product designed in the exporting country or jurisdiction in order to potentially prescribe additional technical conditions for that product and ensure the development of appropriate maintenance, operating, and pilot type rating information (if applicable) for the product.

C-16. Foreign Civil Aviation Authority (FCAA) is the foreign authority equivalent to the FAA within a country or jurisdiction outside of the U.S.

C-17. Flight Manual Supplement is information that supersedes or is in addition to the basic airplane flight manual (AFM) resulting from the issuance of a Supplemental Type Certificate or from approved changes to AFM limitations, procedures, or performance information without an STC.

C-18. Implementation Procedures for Airworthiness (IPA) are a specific type of Implementation Procedures established by the FAA with the majority of our foreign civil

aviation authority counterparts within the context of a higher level bilateral aviation safety agreement.

C-19. Initial Familiarization meeting is the first (or kick-off) meeting by the validating authority (VA) for a foreign validation (FV) project within the familiarization process to determine that scale of the validation plan and level of review by the project office.

C-20. Instructions for Continued Airworthiness (ICA) are the required information (as per 14 CFR 21.50) 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.

C-21. Management Plan is a working-level document that prescribes a detailed method for achieving a technical process derived from an activity stated in a Bilateral Agreement or Arrangement.

C-22. Make An aircraft make is the name assigned to the aircraft by the manufacturer when it was produced.

C-23. Model An aircraft model is an aircraft manufacturer's designation for an aircraft grouping with similar design or style of structure.

C-24. Person is 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.

C-25. Product is an aircraft, aircraft engine, or propeller. See § 21.1(b).

C-26. Production Approval Holder (PAH) is 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.

C-27. Project Manager (PM) is the person (individual or team lead) responsible for ensuring all applicable airworthiness standards are met prior to FAA approval.

C-28. Project Office is the standards/policy office staff office or dully designated Aircraft Certification Office responsible for managing an inbound or outbound foreign validation (FV) project.

C-29. Safety Finding is a finding for the purpose of determining a level of safety. This is often done when a compliance finding is not allowed or not possible within the scope of the applicable project or process.

C-30. Schedule of Implementation Procedures (SIP) is a specific type of outdated Implementation Procedures established by the FAA with some of our foreign civil aviation authority counterparts within the context of a higher level bilateral airworthiness agreement.

C-31. Sensitive Security Information (SSI) is information that, if publicly released, would be detrimental to transportation security, as defined by Federal regulation 49 CFR. part 1520.

C-32. Series An aircraft series is an aircraft manufacturer's designation to identify differences within an aircraft model grouping.

C-33. Significant Standards Differences (SSD) are 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.

C-34. Special Condition (per § 21.16) occurs when the FAA finds that the airworthiness regulations of part 21, Subpart B do not contain adequate or appropriate safety standards for an aircraft, aircraft engine, or propeller because of a novel or unusual design feature of the aircraft, aircraft engine or propeller, and the FAA therefore prescribes special conditions and amendments thereto for the product. The special conditions are issued in accordance with Part 11 of 14 CFR and contain such safety standards for the aircraft, aircraft engine or propeller as the FAA finds necessary to establish a level of safety equivalent to that established in the regulations.

C-35. State of Design (SoD) means the country or jurisdiction having regulatory authority over the organization responsible for the design and continued airworthiness of a civil aeronautical product or article.

C-36. State of Manufacture (SoM) means the country or jurisdiction having regulatory authority over the organization responsible for the production and airworthiness of a civil aeronautical product or article.

C-37. State of Registry (SoR) means the country or jurisdiction on whose register the aircraft is entered.

C-38. Type Certificate means the type design, the operating limitations, the type-certificate data sheet for airworthiness and emissions, the applicable type-certification basis, and environmental protection requirements with which the Agency records compliance, and any other conditions or limitations prescribed for the product in the applicable certification specifications and environmental protection requirements. An engine type certificate data sheet shall include the record of emission compliance.

C-39. Type Design is the description of all characteristics of a product, including its design, manufacturing processes, limitations (e.g., approved section of the airplane flight manual), and continued airworthiness instructions, which determines its airworthiness. This includes drawings and specifications necessary to define the configuration and design features (e.g., dimensions, materials, and processes) and the data substantiating that the design meets the applicable airworthiness requirements.

C-40. Technical Implementation Procedures (TIP) are specific Implementation Procedures tailored to the unique and expansive agreement between the Federal Aviation Administration and European Aviation Safety Agency.

C-41. Validating Authority (VA) is the organization within the importing State, charged by the laws of the importing State, with regulating the design, production, and airworthiness approval and environmental certification of civil aeronautical products and articles.

C-42. Validation is an action between two civil aviation authorities acting as either a validating authority or a certificating (certifying) authority for the purposes of issuing a validated TC/STC or changes to either certificate.

Appendix D. Sample Project Specific Validation Plan (PSVP)

Note: The PSVP is intended only for non-basic TC/STC projects and represents a more in-depth validation plan (or Validation Work Plan) that combines the FAA's, the FCAA's, and the applicant's project planning information into one centralized project document. This is intended to be utilized in similar fashion to the traditional domestic TC/STC project specific certification plan (PSCP). AIR-410 stresses the emphasis on the evolutionary nature of the FV project planning and thus this PSVP. These are living documents subject to change and refinement as project events unfold.

This sample document is simply an aid to help define content and format when drafting a PSVP. All text in italics is instructional for editing or deletion as necessary. Retain all text not in italics, but edit as necessary for each project while maintaining the original intent. Coordinate with AIR-410 as necessary for any clarification or assistance.

Project Specific Validation Plan

Between

[Insert the Name of the FAA Office]

and the

[Insert the Name of the FCAA Office (if applicable)]

and the

[Insert the Name of the Applicant]

Project Number (leave blank until number assigned)

List of Revisions			
Revision Number	Revision Description	Approved by:	Release Date

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	1.2 Brief Project Description	
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	1.4 Product Description Items	
2.0	Applicable Documents	
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4.0	Certification Basis for Validation	
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1.0 Introduction

1.1 Scope

The purpose of this Project Specific Validation Plan (PSVP) is to define and document the requirements and tasks necessary for FAA and FCAA coordinated evaluations, findings of compliance (or safety) and communications to be successful. The *[Insert the applicable FAA Certificating/Validating Office]* of the Federal Aviation Administration and the *[Insert the applicable FCAA Certificating/Validating Office]* will jointly manage and maintain this PSVP. The type validation applicant will also be a signatory on this document such that complete and clear expectations are established for this project. The applicant will have input into the authorities' determinations when directed pursuant to established FAA/FCAA documents and/or the bilateral Implementation Procedures for Airworthiness (Implementation Procedures). This PSVP is a living document and subject to revision, amendment and/or termination at the discretion of all parties assigned herein.

1.2 Brief Project Description

This section must contain a brief description of the aircraft; engine; propeller – including the product name; part number; and make/model eligibility.

1.3 Background (including available FAA/FCAA SoD service history)

1.4 Product (or Major Change) Description Items

a. Model designation and general description (identify significant features here)

b. Original CA Project number and/or Certificate Number

c. Applicant

d. Address

e. Date of Application

f. Type of Project (TC, STC, Amended)

g. CA/VA Offices

h. FAA Project Manager(PM) and FCAA PM

i. Accountable Standards/policy office (s)

j. Project Officer(s) *(as applicable)*

k. Work tracking and/or CPN web-tool ID number

l. AIR-410 Country Manager *(notification purposes only)*

2.0 Applicable Documents

The following documents are required as part of this PSVP to substantiate the manufacture of the articles and to show compliance to the regulations:

Item	*Document/Drawing*	*Revision*	*Description*
1	*12121212*	*A*	*ABC Inc. Validation Application*
2	*Datapkg 1234*	*IR*	*Application data package*

3.0 Project Schedule

Milestones as Applicable	Proposed Completion Date

Submittal of PSVP

Preliminary Meetings (type board)

Preflight Meetings

Other/Misc. Meetings

TIA issuance

Certification/Validation issue/amend

Conformities

Test Plan(s) submittal to FAA/FCAA

Test Plan(s) approval

Testing completed

Test Report submittal to FAA/FCAA

DER approved 8110-3 reports/drawings

Final data submittal for project completion

Additional milestones (as appropriate)

4.0 Certification Basis for Validation

The certification basis and compliance with the applicable regulations is required to be identified in sufficient detail and agreed to up front. Suggested format is at least a table identifying the complete listing of regulations and then initial compliance methods and items for further discussion.

Note that the CA's regulatory basis may be accepted as-is without further FAA approval if the appropriate determinations have been made within the applicable Implementation Procedures and/or standards/policy office -level safety findings. Additional technical conditions will also be identified as necessary.

5.0 Additional technical conditions (relevant only to the FV project)

List any additional technical conditions or other issues beyond the original CA Issue paper items necessary to consider for this project.

6.0 Instructions for Continued Airworthiness (ICA) Plan

Identify the applicant's quality system document -or- describe herein all relevant ICA information associated with this project.

7.0 Continued Operational Safety (COS) Plan

Identify the applicant's quality system document or describe herein all relevant COS information associated with this project.

8.0 Communication and Coordination

The focal points for official communication between the FAA and the applicant are as follows:

[FAA Office Branch]	Project Manager	*[Insert Name and phone number]*
[Insert FCAA Name]	Project Manager	*[Insert Name and phone number]*
[Insert Co. Name]	Project Manager	*[Insert Name and phone number]*

This does not prevent team members from engaging or communicating with any other team member; however, they must inform their project office assigned focal(s). The FAA, the FCAA and the applicant will provide to each other a listing of their project team members.

The project managers will manage the project by conducting regularly scheduled status briefings.

9.0 Delegation

The FAA/FCAA and the applicant agree to foster an environment where the designees, the VA/CA, and the applicant maintain open communications. The VA/CA supports using designees to the fullest extent possible within the purview of the applicable Implementation Procedures and/or 8110.52 to aid in the successful completion of the project within the identified time frame.

The applicant will propose the use of any suitable designee in specific test plans for FAA and/or FCAA concurrence of the test plan, and the designees will complete the task. It is important that the applicant keep the designees and the FAA/FCAA project office informed of any potential shift in the project schedule.

10.0 Signatures

The FAA, FCAA (if applicable), and the applicant agree to the provisions of this PSVP as indicated by the signature of their authorized representatives.

FAA Concurrence:

_____ Date: _____
Project Manager

_____ Date: _____
MIDO *[If applicable]*

***[FCAA name]* Concurrence**

_____ Date: _____
Project Manager

Applicant Concurrence:

_____ Date: _____
Project Manager

Appendix E. Sample Validation Application Rejection Letter

U.S. Department
of Transportation
Federal Aviation Administration

[Date] *(ACO name)*
(*CA Name*)
(CA address) *(ACO address)*

(CA contact):

This is in response to your request for an FAA *[Type Certificate (TC) or Supplemental Type Certificate (STC) or Amended TC or Amended STC or a Major Change to your certificate]* based upon our validation of *[Applicant Name and FCAA cert number]* pursuant to FAA Order 8110.52 and the *[applicable bilateral Implementation Procedures]*. We reviewed the application package, along with your certifying statement of compliance to the FAA regulations on our behalf, and did not find it met the rigor required under FAA regulation 14 CFR 21.29 and/or the agreed upon minimum requirements within the *[applicable bilateral Implementation Procedures]*. Enclosed are the application and data you sent to us on behalf of the applicant.

Sincerely,

_____

Manager, *(ACO name)*

cc:
Applicant Project Manager *[Name and Address]*
FAA AIR-400 International Division

Enclosure(s)

Appendix F. Sample Outbound Project Checklist:

Cognizant ACO/Project Mgr.: _____
FAA TC/STC No.: _____
Issued/Amended Date: _____
Title of Modification: _____
Checklist Date: _____

General/Certification Basis:

Y	N	N/A	
			Does the FAA TC/STC (or changes to either) encompass multiple TCDS (i.e. Approved Model List - AML)?
			Has the FCAA certified/validated all product models to be modified?
			List Applicable FCAA TCDS No.(s): ➢
			List any aircraft models identified on the FAA STC that **will not** be validated: ➢
			Verify that a statement of compliance to the FCAA certification basis was made and included in the application package.
			Are there multiple CFR parts (23, 25, 27, 29, etc.) on the US STC? If so, separate FCAA applications may be needed for each CFR part per the applicable importing requirements.
			Does the modification affect an area associated with an FCAA Airworthiness Directive(s) (ADs)?
			List Applicable FCAA AD(s): ➢
			Are there any findings to regulations at an amendment level newer than the FAA TCDS certification basis?
			If Yes, list associated FCAA Regulation (Amendment) ➢

Limitations:

Y	N	N/A	
			Is this approval a previous installation that requires a subsequent approval?
			Does the FAA STC rely on a dependency with other associated approvals (any prerequisites)?
			If Yes, list associated FAA approval(s): ➢
			Have all associated approvals (prerequisites) been validated or certified by the FCAA?
			If Yes, list associated FCAA approval(s): ➢

Documentation:

Required documentation must be provided to the FCAA in the form and manner they request via the applicable Implementation Procedures or their Import requirements as documented on the FAA's AIR-400 webpage.

Appendix G. Sample Validation Approval Notification Letter

U.S. Department
of Transportation
**Federal Aviation
Administration**

[Date] *(Office name)*
(*CA's Applicant Name*)
(CA's Applicant address) *(Office address)*

(CA's Applicant point of contact):

This is a response to *[CA's letter/application]* for *[Type Certificate (TC) or Supplemental Type Certificate (STC) or Amended TC or Amended STC or a Major Change to your certificate]* based upon our validation of *[Applicant Name and FCAA cert number]* pursuant to FAA Order 8110.52 and the *[applicable bilateral Implementation Procedures]*.

The FAA has no additional technical conditions for which a level of safety equivalent determination is necessary under the terms of 14 CFR § 21.29 and/or *[applicable bilateral Implementation Procedures]*. In addition to this, based on the documented *[CA]* statement of compliance, the FAA will issue a *[Type Certificate (TC) or Supplemental Type Certificate (STC) or Amended TC or Amended STC or a Major Change to your certificate]*.

-or-

The FAA has completed its review of the additional technical conditions as outlined in the project validation plan and we have determined them to be at a level of safety equivalent to *[applicable sections of 14 CFR]* pursuant to 14 CFR § 21.29 and/or *[applicable bilateral Implementation Procedures]*.

If you have any questions regarding this letter, please contact the FAA *[Project Manager at office contact info]*.

Sincerely,

_____

Manager, *(ACO/Standards/policy office name)*

cc:
CA Point of Contact *[Name and Address]*

Appendix H. Sample FAA Certifying Statement Letter

U.S. Department
of Transportation
Federal Aviation Administration

[Date] *(Office name)*
(*CAName*)
(CA address) *(Office address)*

(CA contact):

Pursuant to FAA Order 8110.52 and the *[applicable bilateral Implementation Procedures]*. The Federal Aviation Administration hereby certifies that the *[Specific product type and model]* complies with the *[VA's]* Certification Basis as identified in [Reference Document] dated *[Date]*.

Please reference the supporting data *[attached herein or some other method acceptable to the VA]*. If you have any further questions, please contact the FAA project office at *[FAA project manager office contact information]* for support.

Sincerely,

_____

Manager, (ACO/Standards/policy office name)

cc:
Applicant Project Manager [Name and Address]

Attachments:
[Applicable supporting data]

Appendix I. Related Publications and How to Get Them

I-1. Code of Federal Regulations (CFR). If needed, get copies of 14 CFR sections from the Superintendent of Documents, Government Printing Office, P.O. Box 37154, Pittsburgh, PA 15250-7954. Telephone (202) 512-1800; fax (202) 512-2250. You can also get copies on-line at https://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR.

I-2. FAA Orders. You can get copies of the following orders from the FAA Order and Notices website at *http://www.faa.gov/regulations_policies/orders_notices/* and the Regulatory and Guidance Library (RGL) website at http://rgl.faa.gov/:

- Order 8000.71, *Aircraft Make, Model, and Series Taxonomy*
- Order 8000.72, *FAA Integrated Oversight Philosophy*
- Order 8000.369, *Safety Management System*
- Order 8040.1, *Airworthiness Directives*
- Manual FAA-IR-M-8040.1, *Airworthiness Directives Manual*
- Order 8040.4, *Safety Risk Management Policy*
- Order 8100.5, *Aircraft Certification Service – Organizational Structure and Functions*.
- Order 8100.8, *Designee Management Handbook*
- Order 8100.11, *Requirements for Finding Undue Burden and No Undue Burden Under 14 CFR Part 21*
- Order 8100.15, *Organization Designation Authorization Procedures*
- Order 8110.4, *Type Certification*
- Order 8110.37, *Designated Engineering Representative (DER) Handbook*
- Order 8110.48, *How to Establish the Certification Basis for Changed Aeronautical Products*

I-3. U.S. Military Documents. Order copies of MIL-STD-1916, *DOD Preferred Methods for Acceptance of Product*, dated April 1, 1996, from the Department of Defense Single Stock Point, Subscription Services Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5098. Telephone (215) 697-2664, fax (215) 697-1462.

I-4. American National Standards Institute (ANSI) and American Society for Quality (ASQ). Order copies of ANSI/ASQC Z1.9-2003, *Sampling Procedures and Tables for Inspection by Variables for Percent Nonconforming*, dated December 18, 2003, from the American Society for Quality, 600 North Plankinton Avenue, Milwaukee, WI 53203. Telephone (414) 272-8575, fax (414) 272-1734. You can also order copies online at *www.asq.org*

Appendix J. FAA Form 1320-19, Directive Feedback Information

Directive Feedback Information

Please submit any written comments or recommendations for improving this directive, or suggest new items or subjects to be added to it. Also, if you find an error, please tell us about it.

Subject: FAA Order 8110.52B

To: 9-AWA-AVS-AIR-DMO@faa.gov *or complete the form online at https://ksn2.faa.gov/avs/dfs/Pages/Home.aspx.*

(Please check all appropriate line items)

☐ An error (procedural or typographical) has been noted in paragraph _____ on page _____.

☐ Recommend paragraph _____ on page _____ be changed as follows:
(attach separate sheet if necessary)

☐ In a future change to this directive, please include coverage on the following subject *(briefly describe what you want added):*

☐ Other comments:

☐ I would like to discuss the above. Please contact me.

Submitted by: _____ Date: _____

Telephone Number: _____ Routing Symbol: _____

FAA Form 1320-19 (10-98)