EASA-FAA Certification Oversight

Board Validation Improvement Roadmap - 2022

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Certification Director

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Executive Director
Aircraft Certification Service

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Table of Contents

Preamble

This Roadmap was developed by the Certification Oversight Board (COB). The first issue was approved on February 29, 2016. Issue 2 updated the focus areas in Table A to capture goals achieved, revised the target dates for goals that were still active, and added new VIR goals that were not envisioned in the first document. Issue 3 clarifies dates of actions already accomplished, and clarifies expected TIP revisions for future actions. The COB will continue to review its implementation on a yearly basis and will adjust it if necessary. In case of significant change, the COB will seek the BOB agreement before its implementation.

Introduction

On September 25, 2014, the Directors of the Certification Services/Departments of the Federal Aviation Administration (FAA) and European Aviation Safety Agency (EASA) met in Washington DC to hold their annual Certification Oversight Board (COB) meeting and determined that because of the increased globalization of the aviation business there is a need for greater collaboration among the authorities to harmonize regulatory systems in order to effectively respond to common industry issues. Increasing levels of domestic product certification and new validation projects from third countries (China, India, Japan, Russia, etc.) are placing growing resource demands on the authorities. Maximum use of the EU/U.S. Bilateral Aviation Safety Agreement (BASA) and full recognition of the capability of each partner is essential to reduce the efforts currently expended in validation programs. This is based on established confidence and knowledge of each other's system, which under a risk-based approach, may be applied to enhance reciprocal acceptance.

On June 10, 2015 the Bilateral Oversight Board (BOB) tasked the COB Co-chairs to develop a validation improvement roadmap (VIR) with interim milestones, to meet the BOB objective of 20% level of involvement in validation activities and associated reduction in time and costs by 2022.

COB Validation Improvement Roadmap (VIR) Vision and Objective

The COB VIR vision is to optimize implementation of the EU/U.S. Bilateral Aviation Safety Agreement by enhancing the acceptance of certificating authority (CA) approvals and findings of compliance without any further technical review by the Validating Authority (VA), thereby maximizing reliance on the CA to the greatest extent practicable.

Both, FAA and EASA, recognize that while the ultimate objective, under the risk-based approach, is to achieve full acceptance by the VA, without any technical assessment or issuance of a validation approval, challenges remain. Therefore, both authorities are committed to functionally applying this approach and taking immediate steps to eliminate technical involvement based on level of risk.

The VIR aims to accomplish this by developing and applying risk-based validation principles resulting in reduction of the level of technical involvement in validation. This will result in an associated reduction of FAA and EASA certification resource expenditure while assuring a high degree of safety and promoting regulatory cooperation and harmonization between the EU and the U.S.

COB VIR Strategic Focus Areas

The COB VIR strategic approach is to develop bilateral processes which apply a risk-based approach to reduce and further eliminate VA level of involvement (LOI). In practical terms, a three tiered approach is envisioned based on mutual confidence and the continued maintenance and expansion of such confidence. The tiers are:

1. Reciprocal Acceptance of Certificates and Approvals – An approval in the system of one party constitutes a valid approval in the other party's system without any technical involvement or issuance by the VA (importing authority).
2. Streamlined Validation of Certificates and Approvals - An issuance of an approval in the system of one party leads to an issuance by the VA without any technical involvement.

3. Validation Work-Plan - The LOI by the VA is established based on risk based principles rather than a comprehensive review of compliance findings made by the CA. This process applies a work-plan that incorporates active management oversight to ensure common principles and procedures are applied to maximize reliance on the CA's findings.

Table A below documents the key focus areas and associated initiatives, concluded or underway, which will reduce VA involvement in the number and scope of validation activities conducted under the bilateral agreement.

Table B helps measure success achieved in reducing or eliminating VA involvement and will be used to monitor the progress of this roadmap. As the VA LOI is reduced movement is expected of the grey boxes toward the left on Table B.

Table A – COB Roadmap Focus Areas

Focus Areas	Initiative Description	Completion Date	Desired Outcome
Validation Principles	FAA-EASA to develop validation principles based on TCCA (CMT) Validation White Paper and ongoing COB-CIT activity.	TIP R6 Sept 2017	Optimize reliance on the CA determinations of compliance and approvals when conducting validation. Eliminate Type Validation Principles (TVP) and replace with risk-based principles which allow the partnership to evolve as further confidence is gained.
	Revision of TIP based on recommendations from the Validation Implementation Team to reduce and clarify VA involvement in the validation process	TIP R3 April 2013	TIP Revision 3 introduced a more rigor for the VA to rely on the CA during the validation process
Reciprocal acceptance of Certificates and Approvals – No further showing	Define criteria for reciprocal acceptance of TSOA/ETSOA articles by EASA and FAA.	TIP R5/R6 Sept 2015 /Sept 2017	An approval in the system of one party constitutes a valid approval in the other party's system without any technical involvement or issuance by the VA (importing authority).
	Define criteria for reciprocal acceptance of repair approvals on non critical components	TIP R0 May 2011	
	All repairs approvals are reciprocally accepted	TIP R6 Sept 2017	
	Define criteria for reciprocal acceptance of Authorized Release Certificate (EASA Form 1, FAA 8130-3)	TIP R0 May 2011	
	Refine criteria for major level 1 changes (change classification criteria in TIP)	TIP R6 Sept 2017	Level 1 and 2 design change categories discarded and brought in line with "Acceptance and Validation"
Streamlined validation of Certificates and Approvals – No technical involvement	Accept CA classification for streamlined validation of low-risk STCs (Basic STC)	TIP R5 Sept 2015	An issuance of an approval in the system of one party leads to an issuance by the validating authority without any technical involvement.
	Develop merged (design change [STC] and post TVP changes) classification criteria for streamlined validation of low-risk design	TIP R6 Sept 2017	

	changes to include in addition to Basic STCs; ATCs, ASTC.		NOTE: The FAA is required to issue Certificates (Approvals) but can accept ETSO authorizations without issuing an FAA LODA/TSOA.
	Define classification criteria for streamlined validation of low-risk TCs (Part 33* and 35) (* reciprocal engine only)	TIP R6 Sept 2017	
	Define classification criteria for streamlined validation of low-risk TCs (Part 23, 27, and 33 (turbine engines))	TIP R8	
	Define classification criteria for streamlined validation of all TCs (part 25 and 29)	TIP R9	
	Streamlined validation of STC and TCs for all products	TIP R9	
Validation Work-plan for Approvals	Identify policy on the development and implementation of a work-plan, applying risk-based criteria to show VA level of technical involvement.	TIP R6 Sept 2017	The level of technical involvement by the validating authority is established based on a set of risk based principles rather than a comprehensive review of compliance findings made by the certifying authority.
Common Certification Basis	Incorporate as default VA to use CA certification basis for all validation projects with a work plan.	TIP R9	One single certification basis will facilitate reciprocal acceptance of Certificates and Approvals, and streamlined validation of Certificates and Approvals
Regulatory Cooperation and Harmonization	Modify issue resolution process to include engagement with the applicable EASA-FAA CA Group membership for resolution of regulatory/policy issues.	TIP R6 Sept 2017	Enhance the harmonization of technical standards and policies to further streamline the reciprocal acceptance of approvals and determinations of compliance with the ultimate goal of CA certification basis being acceptable to the VA with no additional technical conditions.
	Streamlined operational validation process by optimizing reliance on the CA system (OSD/MMEL)	TIP R8	
	Streamlined operational validation process by optimizing reliance on the CA system (MRB, MMEL)	TIP Rev 5 Amendt 1 March 2017	
	Develop criteria/procedures for reciprocal acceptance of ADs & Alternate Means of Compliance to ADs.	TIP R8	
	Harmonize airworthiness requirements (FAR, CS) in order to support reciprocal acceptance and streamlined validation	Ongoing Activity	This initiative supports the concept of using one common certification basis for CA and VA. This initiative has various external factors which may not be under AIR control (e.g. FAA rulemaking process).
	Streamlined environmental validation procedures by optimizing reliance on the CA system	TIP R8	
	Harmonize or determine equivalent SMS regulations	Ongoing activity	This initiative supports the concept of a global recognition of SMS when approved by the state of design or manufacture.

	Develop necessary procedures for acceptance of Certificate of Conformity in lieu of 8130-3 for commercial parts	TIP R7 2019	
Training	FAA-EASA jointly develop implementation procedures (TIP) training.	Ongoing activity	Training on the implementation of the bilateral aviation safety agreement implementation procedures (TIP) is harmonized between FAA and EASA, setting common expectations across the technical community. This will further promote and enhance reciprocal acceptance of approvals.
UAS/RPAS	Develop necessary procedures in TIP to apply validation principles to UAS/RPAS products	TIP R7 2019	UAS/RPAS

Table B - COB VIR Status Overview – Validation Activities

	Reciprocal Acceptance - **no validation***	Streamlined validation - **no technical involvement***	Validation – **Work-Plan**+
Type Certificates			
Part 23			
Part 25			
Part 27			
Part 29			
Part 33			
Part 35			
Light Sport Airplanes			
Articles (Parts and Appliances)			
Parts Manufacturers Approval (non-critical)			
Parts Manufacturers Approval (critical)			
Technical Standard Order Authorization			
Design Changes			
Basic STCs (All Products)			
Non-Basic STCs (All Products)			
Non-Basic Design Changes			
Basic Design Changes	No change to TC/TCDS	Change to TC/TCDS	
Minor Change			
Articles			
Parts Manufacturers Approval	Non-Critical PMA		Critical PMA
Technical Standard Order Authorization			
Repairs			
Major repair			
Minor repair			
Alterations (Only applies to FAA)			

* These columns represent no technical involvement by the Validating Authority.
+ The Work Plan is used to actively manage the level of involvement of the Validating Authority (VA) to maximize reliance on the Certificating Authority's findings. Metrics for VA Level of Involvement include number of Certification Review Items or Issue Papers, flight tests, and tests witnessing