

**ACT ARC Recommendation 20-10**  
**Operational Evaluation of Non-Installed Equipment**

**I. Submission**

The recommendations below were submitted by the Flight Standardization Board Workgroup (FSB WG) for consideration by the Air Carrier Training Aviation Rulemaking Committee (ACT ARC) Steering Committee at F2F-22, March 4-5, 2020. The ACT ARC Steering Committee adopted the recommendations, and they are submitted to the Federal Aviation Administration (FAA) as ACT ARC Recommendation 20-10.

**II. Statement of the Issue**

The Federal Aviation Administration (FAA) asked the ACT ARC to examine whether the FAA should reconsider its Flight Standardization Board (FSB) Operational Evaluation (OE) process and, if so, to recommend what elements should be included and what standards should be used to ensure consistent conduct of OEs. The ACT ARC established the FSB WG to complete this FAA-initiated tasking. Non-installed equipment means any instrument, equipment, software, or accessory carried on board an aircraft by the aircraft operator, which is not an airworthiness approved installed part, and which is used or intended to be used in operating or controlling an aircraft, supports the occupants' survivability, or which could impact the safe operation of the aircraft. Examples of non-installed equipment include portable Electronic Flight Bag (EFB) hardware, EFB application software, or enhanced vision equipment such as night vision goggles. The operational evaluation and authorization for use of EFBs and other non-installed equipment typically requires a wide range of expertise (e.g., safety, human factors, security, pilot procedures, and training) which is not available to all operators or Federal Aviation Administration (FAA) local offices. For this reason, original equipment manufacturers (OEMs) have been applying for operational suitability evaluation of non-installed equipment, in particular EFB applications, to their FAA Aircraft Evaluation Groups (AEG) in order to obtain a general statement of operational suitability, which eases and streamlines operational authorization and entry into service at the operator level. However, operational suitability evaluation of non-installed equipment by the AEGs is not a documented process and there is no assurance to industry that AEGs can perform the evaluation on a continuing basis.

**III. Proposed Recommendations**

The ACT ARC recommends that the FAA, in the short-term, consider creating and documenting as policy an operational suitability evaluation process applicable to non-installed equipment, *i.e.*, equipment that is not part of the aircraft type design but that is carried on-board by the aircraft operator, used in operations, and which could impact the operational safety of the aircraft. Such non-installed equipment includes, e.g., Electronic Flight Bag (EFB) applications and night vision goggles. This policy is intended to codify existing Operational Suitability reports and letters.

The ACT ARC recommends that the FAA, in the medium-term, consider working with its bilateral partners (e.g., the European Union Aviation Safety Agency (EASA)) for a mutual acceptance or technical validation of non-installed equipment.

#### **IV. Rationale and Discussion**

To ease and streamline operational authorization, OEMs and applicants have been applying to AEGs for operational suitability evaluation of their products.

The FAA has, in the past, published the results and findings of these evaluations on the Flight Standards Information Management System (FSIMS) as Operational Suitability Reports (OSRs). For recent evaluations, the FAA has not published OSRs on FSIMS, but has produced Operational Suitability Letters (OSLs), which it has sent directly to applicants, who distribute them to their end-users.

The process and associated procedures to conduct the operational evaluation of non-installed equipment and the publication of results in OSRs or OSLs is not documented, and there is no assurance to industry that the FAA will continue to fulfill requests by applicants and operators. Non-installed equipment, in particular EFBs, are widely used by operators and failure to properly evaluate and authorize some functions can have an impact on operational safety. Therefore, as a short-term objective, the ACT ARC recommends the FAA consider developing and documenting as policy an operational suitability evaluation process applicable to such non-installed equipment.

In addition, there is no mutual recognition between the FAA and its bilateral partners, such as EASA, of their findings of operational suitability with respect to non-installed equipment such as EFB applications. Consequently, applicants must conduct the evaluations with the FAA and its bilateral partners jointly or in sequence. EASA has launched a rulemaking activity to propose a new *ad hoc* procedure for the evaluation and approval of the non-installed equipment.

As a medium-term objective, the FSB-WG recommends the FAA consider working with its bilateral partners (e.g., EASA) for a mutual acceptance or technical validation of non-installed equipment operational suitability findings.

The recommendations provided in this document about integrated AEG/FSB activities are complementary to input from the Department of Transportation Special Committee, Joint Authorities Technical Review (JATR), and Safety Oversight and Certification Aviation Rulemaking Committee (SOC ARC).

## **V. Background Information**

ACT ARC recommendation 20-10 addresses Items 1 and 3.b-c in the FSB WG Scope of Work and ACT ARC Initiative #43 (see below):

### FSB WG Scope of Work:

1. Examine whether the FAA should reconsider its current process of an FAA operational evaluation.

- a. If the WG decides that the FAA should reconsider, the WG should examine the possible alternatives to the current process.

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3. In developing proposed recommendations responsive to (1) . . . , consider, at minimum, the following:

- b. Would the new or improved operational evaluation include elements that are not included in a current FAA operational evaluation?
- c. What standards should be used to ensure the consistent conduct of operational evaluation?

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### ACT ARC Initiatives:

- Initiative #43: Examine how the FAA could improve its current Flight Standardization Board (FSB) Process and product (FSB Report) to meet the interests of all stakeholders.

### Source Reports

- FAA Advisory Circular (AC) 120–76D, Authorization for Use of Electronic Flight Bags, October 27, 2017.