ACT ARC Recommendation 21-7
Flight Standardization Board Report Continuous Improvement

I. Submission

The recommendations below are submitted by the Flight Standardization Board Workgroup (FSB WG) for consideration by the Air Carrier Training Aviation Rulemaking Committee (ACT ARC) Steering Committee at its April 28, 2021, meeting. The ACT ARC Steering Committee adopted the recommendations, and they are submitted to the Federal Aviation Administration (FAA) as ACT ARC Recommendation 21-7.

II. Statement of the Issue

FAA Advisory Circular (AC) 120–53B, *Guidance for Conducting and Use of Flight Standardization Board (FSB) Evaluations*, provides guidance for the creation and revision of FSB Reports (FSBR), Master Difference Requirements (MDR) Tables, and Operator Difference (ODR) Tables. The guidance outlines specific instances when revisions may be required. The ACT ARC recommends that the role of the FSB in continuous operational safety be further defined, including how the FSB process and the FSBR for specific aircraft should be informed by data.

Commercial aviation continues to be one of the safest modes of travel. To maintain such a high level of safety and actively mitigate risks, aviation relies heavily on the use of data to inform decisions in all areas of operations, maintenance, and training. The use of data-driven programs, such as safety management systems, allows industry to identify and resolve safety deficiencies early and manage risks. This approach has allowed aviation safety to move from a reactive to a proactive risk management environment, where improvements can be made in ways that are measurable in benefit while increasing efficiency and minimizing cost and waste.

The ACT ARC agreed that greater use of data and data analytics is necessary for continuous improvement to the FSB process and training assumptions made within the FSB. However, the Committee was split as to how such a continuous improvement process should be constructed. Nonetheless, the working group felt strongly that more data could inform new training requirements and verify existing assumptions/decisions once operations occur. The ACT ARC agreed that the FAA should consider steps to use data to fully inform future FSBs.

III. Recommendations

The ACT ARC recommends that the FAA establish an expert group comprising representatives of training providers, original equipment manufacturers (OEM), FAA specialists, air carriers, pilots, and data experts to develop criteria for obtaining current operational data on the efficacy of the FSBR results for continuous review and improvement of the applicable pilot training. The FAA should work with these industry stakeholders to identify sources of data that currently exist. These data should be used to create a feedback loop back to the FSBR such that it creates an opportunity for continuous improvement. Any changes to the FSBR should be verified and the data used should have continuity between training and operational aspects.

IV. Rationale and Discussion

Many avenues of data collection currently exist within modern aviation safety assurance system structures. These sources of data, when appropriately analyzed and correlated (for example, between an air carrier's Advanced Qualification Program (AQP) and Flight Operational Quality Assurance (FOQA) program) can provide an almost complete picture of the efficacy of the training prescribed within an FSBR. Analysis of available training and operational data will help to close the gap between design assumption and operational reality. T Tests remain a relatively small sample size compared to real-world operation and without proper analysis of data obtained from those operations, it is difficult to fully conceptualize how accurate an FSB evaluation is, as it relates to the aircraft or technology studied. When properly evaluated and communicated back to the FAA and original applicant, the results of this evaluation can be used to effectively remedy deficient areas of the FSBR, while simultaneously ensuring that the changes are neither overly prescriptive nor do they introduce undue burden or risk.

V. Background Information

Recommendation 21-7 addresses Item 2 in the FSB WG Scope of Work and ACT ARC Initiative #43 (see below):

FSB WG Scope of Work:

2. Examine how the FAA could improve its current product (FSB Report) to meet the interests of all stakeholders.

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.

DOT Special Committee Report: The FAA should find a way to integrate de-identified and confidential data sources so that the aircraft certification workforce, Flight Standards inspectors and other safety organizations can focus on near-time risk factors as part of their continued operational safety activities.

References

- FAA AC 120–53B, Change 1
- FAA Order 8900.1