SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION:
QUESTIONS FOR THE RECORD

HEARING ON
FAA REAUTHORIZATION: PERSPECTIVES ON IMPROVING AIRPORT INFRASTRUCTURE AND AVIATION MANUFACTURING
MARCH 23, 2017

Written Questions Submitted to Dr. Gerald Dillingham, Director of Civil Aviation Issues, Government Accountability Office

Submitted by Senator Fischer

Question 1. In your testimony, you provided a generally positive overview of the FAA's progress in addressing the concerns raised by industry stakeholders as it relates to the certification process. Are there any areas of particular concern that GAO has with the FAA's implementation of recommendations to enhance regulatory consistency and the certification process?

Answer. As noted in our written statement,[1] we previously found that FAA's organizational culture was a primary challenge for successfully implementing the certification process and regulatory consistency initiatives. We also found that cultural shifts for FAA staff were necessary in how regulations, policy, and guidance are applied, and ultimately how certification and approval decisions are made. FAA's Aircraft Certification Service (AIR) established an organizational performance division, with dedicated staff, to facilitate change management and cultural shifts. In March 2017, FAA officials emphasized that for the AIR transformation to succeed, industry has to forgo past perceptions about negative experiences with FAA inspectors and engineers on certification issues. FAA officials told us that the success of the transformation will depend, in part, on industry's buy-in, engagement, and recognition that they are a key part of the cultural shift. FAA officials emphasized that for the AIR transformation to succeed industry also has to commit to change. FAA and industry must hold themselves accountable to building a compliance culture within their organizations and engaging in constructive dialogue to resolve issues at the lowest level possible.

Question 2. Dr. Dillingham, in your testimony you talked about industry stakeholders being concerned that the FAA is more focused on completing recommendations, or checking the boxes, than ensuring there are substantial improvements to the certification process. You followed that by saying the FAA is reaching out to stakeholders to update them on the agency's progress.

Would you please elaborate on the means and frequency by which the FAA is updating industry stakeholders on the progress it is making?

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[1] GAO, *Aviation Certification: FAA Has Made Continued Progress in Improving Its Processes for U.S. Aviation Products*, GAO-17-508T (Washington, D.C.: March 23, 2017).

Answer. As noted in our written statement,[2] FAA has been more active in communicating its work on these initiatives, both by meeting with industry representatives to update them and by involving industry groups in various activities to complete the initiatives. Aircraft Certification Service (AIR) officials told us, and industry stakeholders confirmed, that AIR has conducted numerous briefings to industry stakeholders on the status of the certification process initiatives and the realignment/transformation effort. AIR is working with industry to charter an organization designation authorization Scorecard Continuous Improvement Team—which will include FAA and industry representatives—to conduct analyses of the scorecard data across each year and consider recommendations/options for continually improving areas of the certification process. Recently, the Los Angeles Aircraft Certification Office manager created a team and partnered with the General Aviation Manufacturers Association and the Aerospace Industries Association to rewrite the 2004 FAA and Industry Guide to Product Certification, which contains a description of the purpose and vision of the certification process and an overview of the product certification phases. AIR also periodically updates and publishes its implementation plan for the Certification Process Committee recommendations to show the status of each initiative.

Question 3. Dr. Dillingham, one idea that is frequently brought before this committee is that technology is evolving rapidly, and government is having a difficult time keeping up. This appears to be one of the concerns you stated GAO heard from industry stakeholders when reviewing the Aircraft Certification Service transformation process.

Do you believe the recommendations given to FAA will allow for flexibility in the Aircraft Certification Service's rulemakings as new technology is developed?

Answer. Yes, to the extent that FAA fully implements the recommendations from the Future of Aviation Advisory Committee (FAAC) [3] and the Certification Process Committee,[4] it will allow for flexibility in FAA's rulemaking as new technology is developed. Often when new technologies are part of a certification project, FAA uses special conditions to evaluate that technology. For example, FAA applied five special conditions to the certification of the Boeing 787 Dreamliner for composite structures (see GAO-11-849).[5] At some point, some special conditions become the subject of rulemakings in order to codify them as regulations. Both the FAAC and the Certification Process Committee have recommended that FAA improve its rulemaking process. The FAAC recommended in 2011 that FAA prioritize its rulemaking program, and the Certification Process Committee recommended to FAA in 2012 that the Aircraft Certification Service (AIR) undertake a review of the continued operational safety and rulemaking processes and implement reforms necessary to improve efficiency, including fast tracking the rulemaking process to update airworthiness standards in cases where special

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[2]GAO-17-508T.

[3]In 2010, in response to these and other challenges, DOT established the FAAC to develop a manageable, actionable list of recommendations for DOT. In April 2011, the FAAC released a report outlining 23 recommendations in five areas: environment, financing, competitiveness and viability, labor and workforce, and safety. GAO was asked to review the status of DOT's efforts to implement the FAAC recommendations. GAO examined 10 of the FAAC's 23 recommendations. For more information see GAO, *Aviation: Status of DOT's Actions to Address the Future of Aviation Advisory Committee's Recommendations*, GAO-13-657 (Washington, D.C.: July 25, 2013).

[4]The Certification Process Committee is one of two aviation rulemaking committees that FAA chartered as required by the 2012 FAA Modernization and Reform Act. Both committees made recommendations to FAA, and the Certification Process Committee recommendations are being address by FAA's Aircraft Certification Service.

[5]GAO, *Aviation Safety: Status of FAA's Actions to Oversee the Safety of Composite Airplanes*, GAO-11-849 (Washington, D.C.: September 21, 2011).

conditions have been used for a period of time and the design is no longer new and novel.[6] In response to both recommendations, FAA developed a rulemaking prioritization tool. This tool considers special conditions and updating airworthiness standards per the FAAC recommendations. AIR adopted the rulemaking prioritization tool to update airworthiness standards for special conditions in September 2014.

[6]FAA issues special conditions to address novel or unusual design features during the aircraft certification process. A special condition is a regulation that applies to a particular aircraft design. FAA issues special conditions when the airworthiness regulations for an aircraft, aircraft engine, or propeller design do not contain adequate or appropriate safety standards, because of a novel or unusual design feature. 14 C.F.R. § 11.19.