

**STATEMENT OF  
BILLY NOLEN, ACTING ADMINISTRATOR  
FEDERAL AVIATION ADMINISTRATION**

**HEARING BEFORE THE UNITED STATES SENATE**

**COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION:**

**IMPLEMENTATION AND OVERSIGHT OF THE AIRCRAFT, CERTIFICATION, SAFETY,  
AND ACCOUNTABILITY ACT**

**MARCH 8, 2023**

Chair Cantwell, Ranking Member Cruz, and Members of the Committee, thank you for the opportunity to be with you today to discuss how the Federal Aviation Administration (FAA) is strengthening our certification and safety oversight processes and our implementation of the bipartisan Aircraft Certification, Safety, and Accountability Act (“Act”). Before we discuss certification reform implementation, on behalf of everyone at the United States Department of Transportation and the FAA, I want to recognize the families of the victims of the Lion Air and Ethiopian Airlines accidents and thank them for their continued advocacy for aviation safety.

The FAA understands and embraces the importance of continuously raising the bar on aviation safety, not only in the U.S., but around the world. During the past two years, we have made significant progress meeting the requirements of the law to improve and refine our certification and safety oversight processes. Using a comprehensive approach to implementing the provisions from the recent certification reform legislation and the various recommendations received from investigations and independent reviews<sup>1</sup>, we have rededicated our processes to treat aircraft as complex systems, with full consideration of how all the elements in the operating system interact. We are integrating human factors considerations more effectively throughout all aspects of the design and certification process. We are improving the agency’s oversight process by ensuring coordinated and flexible flow of data and information. And finally, we are recruiting a workforce that can meet the demands of the future—by hiring new talent who

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<sup>1</sup> Including investigations conducted by Department of Transportation (DOT) Office of Inspector General, National Transportation Safety Board, etc. and independent reviews conducted by the Joint Authorities Technical Review, DOT Special Committee, congressional committees, etc.

understand the safety implications of new and innovative technologies, as required by the Act. We will continue to prioritize this important work as we carry out our responsibilities for public safety. It is more important than ever that we maintain our safety record while making improvements that will help sustain our progress. The discussion below provides an overview of some of our accomplishments to date.

- *Safety Management Systems (SMS)*. SMS is a systematic and comprehensive way to identify, monitor, and address potential operational hazards early on, to prevent serious problems from occurring. U.S. airlines have been required to have SMS since 2018. Expanding SMS to other players in the aviation industry is critical for achieving the next level of safety. As required by the Act, we recently published a notice of proposed rulemaking (NPRM), which proposes SMS requirements for certain design and manufacturing organizations. Recognizing the importance and value of SMS, we included Part 135 operators and air tour operators conducting operations under Part 91 in NPRM as well.<sup>2</sup> As rulemaking is underway, we continue to promote participation in voluntary SMS programs. These participants submit elements of SMS to the FAA for acceptance; and commit to regular oversight of their SMS by the FAA. As of today, we have accepted more than 60 SMSs for Part 135 operators, Part 91 air tour operators, and Part 145 repair stations; and accepted five SMSs for design and manufacturing organizations, with many more working towards acceptance. The FAA is using the lessons learned from these voluntary programs to inform FAA's SMS rulemaking and policy development.
- *System Safety and Human Factors*. In accordance with the Act, we incorporated system safety assessments and validation of human factors assumptions into the FAA's aviation safety policy and oversight, including the design and certification process. We recently published an NPRM that proposes new requirements on how to conduct system safety assessments for transport

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<sup>2</sup> RIN 2120-AL60, Notice of Proposed Rulemaking for Safety Management Systems published on January 11, 2023. <https://www.federalregister.gov/documents/2023/01/11/2022-28583/safety-management-systems>. [FAA is seeking public comment on the NPRM until March 13, 2023.](#)

category airplanes.<sup>3</sup> We are also working on several initiatives to increase the incorporation of human factors to improve the way systems account for the broad range of pilot capabilities around the world. For example, pursuant to the Act, the FAA completed a preliminary review of human factors rules, guidance, and pilot response assumptions to identify and prioritize changes to better incorporate system safety analyses and human factors assumptions into the FAA's aviation safety policy and oversight. Finally, the FAA launched a call to action to review revisions made to pilot certification standards. The group provided recommendations on how to improve manual flying skills and automation management, and the FAA is in the process of implementing these recommendations.

- *Global Collaboration.* Global collaboration is crucial to maintaining U.S. leadership in aviation safety. The FAA continues to participate in the International Civil Aviation Organization (ICAO) Personnel Training and Licensing Panel Automation Working Group, which is assessing the pilot dependency on automation globally. The FAA is also leading an international authority working group to evaluate the Act's requirements regarding amended type certificates. This working group recently recommended process improvements based on more than a decade of harmonized application of changed product rules. We are working to implement these recommendations. The Act requires the FAA to ensure that pilot operational evaluations for transport category airplanes include foreign and domestic pilots of varying levels of experience. In response, the FAA issued a notice in 2021, to update the policy to include pilots in Flight Standards Board operational evaluations.
- *Data.* As the aviation system evolves, the FAA is constantly considering options to improve data accessibility and foster collaboration in order to share data on identified risks throughout the government and with the public. FAA continues to expand the agency's capability to collect,

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<sup>3</sup> RIN 2120-AJ99, Notice of Proposed Rulemaking for System Safety Assessments for transport category airplanes published on December 8, 2022. <https://www.federalregister.gov/documents/2022/12/08/2022-26369/system-safety-assessments>

consolidate, analyze, and share safety data within the FAA and with aviation and transportation stakeholders and international partners. Data enhances the FAA's ability to identify and respond to potential safety issues and to better identify safety trends in aviation. It is key in our efforts to move to a predictive system, not just preventative. The FAA continues to improve the Aviation Safety Information and Sharing (ASIAS) database, including incorporating rotorcraft data and voice data from air traffic control to support safety analyses. Pursuant to the Act, we have worked with the Transportation Research Board to identify, categorize, and analyze emerging safety trends in aviation and completed the first required report in August 2022. We have also partnered with the National Aeronautics and Space Administration to establish the framework for real-time data monitoring.

- *Integration of Certification and Oversight Functions.* The Act requires the FAA to form an interdisciplinary project team for any type certificate project for transport category airplane. The FAA's Integrated Program Management team includes subject matter experts from Flight Standards and the Aircraft Certification Service who make recommendations to improve oversight during aircraft certification and operational evaluations. As the team finalizes recommendations, they are already integrating best practices into certification projects and ensuring proper integration on those projects. In February 2022, the FAA expanded the Technical Advisory Board (TAB) process for all new and amended type certification projects for transport category airplanes, and applied this new approach to the Boeing 777X certification program. We also established the FAA Compliance Program Executive Council to monitor the operation and effectiveness of the Compliance Program, and I received the second report earlier this year.
- *Culture of Safety and Excellence.* The safety culture at the FAA is one that promotes continuous improvement of safety systems and outcomes, while providing support for employees and industry stakeholders to self-disclose safety issues and noncompliance. These efforts include promoting the voluntary safety reporting program (VSRP) among other efforts, and recruiting talented staff. VSRP empowers all Aviation Safety (AVS) employees to confidentially report

safety concerns without fear of reprisal or other repercussions.<sup>4</sup> We recently completed the first AVS safety culture assessment, which included surveys of AVS employee’s opinions about safety culture and the implementation of VSRP. The FAA is reviewing the results to determine what actions may be needed in response to the data. We have also hired specialized staff within the AVS organization and provided training to increase competencies on human factors. FAA will continue to evaluate the safety culture and implement measures to improve collaboration between employees and management to identify and address safety concerns.

- *Delegation.* The Act requires the FAA to make extensive and meaningful changes to the Organization Designation Authorization (ODA) program. As required by law, we now require FAA approval of individual ODA unit members for certain ODA types, and established a policy to prevent interference with ODA unit members. The ODA expert panel was established in December 2022, and we held the kickoff meeting for the expert panel earlier this month. Finally, the ODA Office within AVS now has approximately 50 employees and is tasked with overseeing the ODA system across all of AVS.
- *Certification and Continued Operational Safety Processes.* Ensuring the safety of aviation products through certification is an important function of the FAA, and we are enhancing the type certification process. This includes revising guidance and criteria used for determining significant changes to best ensure that proposed changes to an aircraft are evaluated from a whole aircraft-level perspective, including human interface elements. Pursuant to the Act’s requirements, we recently published an order that outlines the aircraft certification service issue resolution and appeals processes.<sup>5</sup>
- *Innovation.* Aviation is incredibly dynamic, and it is imperative for the FAA to accelerate and enable the deployment of new technologies to reduce barriers and promote innovation that

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<sup>4</sup> Federal Aviation Administration, *Aviation Safety Voluntary Safety Reporting Program*, Order 8000.375, February 02, 2021, at [http://www.faa.gov/documentLibrary/media/Order/VS\\_8000.375.pdf](http://www.faa.gov/documentLibrary/media/Order/VS_8000.375.pdf).

<sup>5</sup> Federal Aviation Administration, *Aircraft Certification Service (AIR) Issue Resolution and Appeal Processes*, Order 8100.20, January 1, 2023, at [https://www.faa.gov/documentLibrary/media/Order/Order\\_8100.20.pdf](https://www.faa.gov/documentLibrary/media/Order/Order_8100.20.pdf)

enhances the safety and efficiency of air transportation. Through our Center for Emerging Concepts and Innovation we have expanded efforts to support certification of new aircraft and technologies, including structured pre-application engagement with companies to identify a clear path to compliance.

Chair Cantwell, Ranking Member Cruz, I want to assure you, and each member of the Commerce Committee, that the FAA is fully committed to the Aircraft Certification, Safety, and Accountability Act. As we continue this work, we will maintain a posture of transparency and accountability, including providing regular briefings with the Committee and stakeholders across the industry.