AIRCRAFT CERTIFICATION, SAFETY, AND ACCOUNTABILITY ACT

SUMMARY

This bipartisan, bicameral legislation strengthens the Federal Aviation Administration's (FAA) aircraft certification process; ensures transparency, accountability, and integrity in FAA regulation of U.S. aircraft manufacturers; addresses issues identified related to human factors, automation in the cockpit, and international pilot training; and authorizes nearly $275 million over the next five years in robust FAA oversight and aviation safety-improving programs and initiatives.

FAA OVERSIGHT

- Requires the FAA to issue regulations for holders of both a type certificate and a production certificate, such as aircraft and other aerospace industry manufacturers, to adopt safety management systems (SMS) consistent with international standards and practices.
- Convenes an independent expert review panel to review The Boeing Company's organization designation authorization (ODA), safety culture, and capability to perform FAA-delegated functions.
- Directs the FAA to perform periodic audits of each manufacturing ODA unit and its procedures at least once every seven years.
- Directs the FAA to assign aviation safety advisors to ODA unit members at certain aircraft and engine manufacturers to ensure unit members are knowledgeable of FAA policies and to monitor their performance.
- Requires the FAA to brief Congress on specific measures the agency has taken to reinforce that each FAA employee responsible for overseeing an aircraft manufacturer's ODA performs their work in accordance with safety management principles and in the public interest of aviation safety.
- Directs an FAA expert panel to identify and develop best practices for ODA holders, including preventing and deterring undue pressure on FAA-designees, and directs the FAA to require such practices to be incorporated in each ODA holder's procedures manual.
- Requires the FAA to establish an executive council to oversee the effectiveness of the agency's Compliance Program, which emphasizes actions short of punitive measures to encourage regulated entities to comply with FAA regulations and self-report deficiencies.
- Expresses the Sense of Congress that the FAA should hold Boeing fully accountable for any failure to meet the conditions of its 2015 settlement agreement with the FAA.

FAA-DELEGATED AUTHORITY

- Prohibits the FAA from delegating, to a manufacturer, the authority to certify on behalf of the agency that a critical system design feature, including a "novel or unusual design feature," complies with the Federal Aviation Regulations until the FAA Administrator has validated any underlying assumptions related to human factors.
- Requires the FAA Administrator, beginning on January 1, 2022, to approve each new individual selected by an ODA holder engaged in the design of an aircraft, aircraft engine, propeller, or appliance before they become an authorized representative (or ODA unit member) to act on the

FAA's behalf in validating compliance of aircraft systems and designs with FAA requirements. Requires new ODA unit members to meet qualifications issued by the FAA Administrator, and that at minimum, such individuals must possess the requisite knowledge and technical skills and be of good moral character. Allows for conditional designations of ODA unit members and requires the FAA to approve or reject those designations within 30 days. Reinforces the FAA Administrator's authority to rescind an approval for an individual to serve as an ODA unit member at any time, for any reason.

- Directs the FAA to review each current Boeing ODA unit member to ensure each individual meets the agency's minimum qualifications.
- Imposes a civil penalty for any supervisor of an ODA holder that manufactures transport category airplanes who interferes with (e.g., harasses, berates, or threatens) an ODA unit member's performance of authorized functions on behalf of the FAA and requires all ODA unit members to promptly report any cases of interference experienced or witnessed at a company.
- Prohibits the FAA and ODA holders from prohibiting ODA unit members from communicating with FAA personnel and vice-versa.

FAA WORKFORCE

- Authorizes $27 million in annual appropriations for the FAA to recruit and retain engineers, safety inspectors, human factors specialists, software and cybersecurity experts, and other qualified technical experts who perform duties related to the certification of aircraft, engines, and other components.
- Directs the FAA to conduct a review of its workforce responsible for aircraft certification to determine whether the agency has the necessary expertise and capability to certify new technologies and materials.
- Directs the FAA to develop a program for recurrent and continuing education of FAA engineers, inspectors, and other experts and to provide them with opportunities to expand their knowledge and skills.
- Directs the FAA, in collaboration with labor groups representing certain FAA employees, to implement a confidential voluntary safety reporting program for FAA engineers, safety inspectors, systems safety specialists, and others.
- Requires the FAA to incorporate a human factors education program into its employee training programs.
- Prohibits an FAA employee from receiving a compensation adjustment solely on the basis of meeting or exceeding a deadline related to the completion of a certification function.
- Implements a one-year cooling off period for incoming FAA employees from overseeing their former aerospace manufacturer employer and a two-year cooling off period for former FAA certification employees representing their new employer before the FAA if they were responsible for overseeing that employer while at the FAA, consistent with existing aviation safety inspector restrictions.

AIRCRAFT DESIGN AND DEVELOPMENT

- Prohibits the FAA from issuing a type certificate for a new airliner design unless the airplane is equipped with a centralized crew alerting system that helps a pilot differentiate between, prioritize, and respond to warnings, cautions, and advisories on the airplane.

- Expands the FAA's role in reviewing and approving pilot training requirements for commercial aircraft and initiates several reviews looking at human factors, increased aircraft automation, pilot airmanship, flight deck management, and FAA airman certification standards.
- Directs the FAA to ensure the certification of transport airplanes include test pilots from the same air carriers expected to operate the aircraft under review and that manufacturers ensure pilots possessing varying levels of experience are used in their evaluations.
- Directs the FAA to develop research requirements to address the integration of human factors in the design and certification of aircraft and authorizes $7.5 million for such effort.
- Authorizes $2 million in annual appropriations for an FAA Center of Excellence focused on automated systems and human factors in transport category aircraft.

AIRCRAFT CERTIFICATION

- Requires the FAA to convene an interdisciplinary integrated project team with FAA specialists and employees of other agencies, such as the Air Force and NASA, at the outset of a certification program for a new airplane to advise the FAA Administrator and make written recommendations regarding new technology or novel designs.
- Directs the FAA to require an applicant for an amended type certificate for a transport airplane to perform a system safety assessment (SSA) with respect to each proposed design change the FAA determines is significant, and to review each SSA for sufficiency and adequate consideration of the airplane-level effects of failures, including pilot responses to those failures.
- Directs the FAA Administrator to issue an order establishing an appeal process to review an FAA employee's decision regarding a manufacturer's compliance with applicable design regulation.
- Prohibits FAA leadership from communicating with manufacturing executives about a dispute referenced above outside of the established review process unless those communications are publicly disclosed.
- Directs the FAA to exercise leadership in the creation of international policies and standards relating to the issuance of amended type certificates for new airplane designs and requires the FAA to conduct a rulemaking to revise and improve the process for issuing amended type certificates.
- Directs the FAA to fund a study by a Federally-funded research and development center on amended and supplemental type certificates for transport category airplanes and to report to Congress on the FAA's response to the findings and recommendations of the report and any actions the agency will take as a result.
- Repeals previously enacted statutory language related to performance objectives and metrics for the FAA's aircraft certification process and flight standards activities.

TRANSPARENCY AND ACCOUNTABILITY

- Requires manufacturers to disclose to the FAA, and to airlines and pilots via airplane flight manuals and flight crew operating manuals, all safety-critical information related to an aircraft, including information regarding systems that manipulate flight controls without direct pilot input and whose failure or erroneous activation would present a risk rated hazardous or catastrophic. Imposes up to a $1 million civil penalty for a violation of the disclosure requirements.
- Prohibits a transport-category aircraft manufacturer from applying for an airworthiness certificate for an individual aircraft if it does not conform to the type design and assesses a civil penalty if the nonconformity is known but not disclosed by such manufacturer.

- Strengthens and clarifies the role of the FAA whistleblower office, including by providing it authority to investigate certain instances of whistleblower retaliation and creating an FAA whistleblower ombudsman to ensure FAA employees are properly educated on prohibited acts of whistleblower retaliation.
- Adds aviation manufacturing employees to existing laws protecting airline employees from whistleblower retaliation for reporting safety issues or violations.

OTHER IMPROVEMENTS

- Authorizes expanded FAA programs to assist foreign aviation authorities to improve international aviation safety.
- Requires the development of an annual report to identify, categorize, and analyze emerging safety trends in air transportation.
- Requires a review of the transport airplane risk assessment methodology (TARAM) and resulting analyses to ensure it adequately captures the continuing risk to aviation safety associated with a suspected unsafe condition that has caused a crash.
- Requires the FAA to report to Congress on the status of its implementation of recommendations from various reports and reviews issued in the wake of the 737 MAX accidents.
- Directs the FAA to issue interim final regulations to establish requirements for issuing aviation maintenance technician school certificates and associated ratings as well as the general operating rules for those certificate and rating holders.
- Authorizes $15 million in annual appropriations for the FAA to create a "National Air Grant Fellowship Program," which establishes fellowships for qualified graduates and post-graduates in aerospace and other related fields of study.
- Authorizes $10 million in annual appropriations for the FAA's Advanced Materials Center of Excellence.