

1 **DIVISION V—AIRCRAFT CERTIFI-**
 2 **CATION, SAFETY, AND AC-**
 3 **COUNTABILITY**

4 **TITLE I—AIRCRAFT CERTIFI-**
 5 **CATION, SAFETY, AND AC-**
 6 **COUNTABILITY**

7 **SEC. 101. SHORT TITLE; TABLE OF CONTENTS.**

8 (a) **SHORT TITLE.**—This title may be cited as the
 9 “Aircraft Certification, Safety, and Accountability Act”.

10 (b) **TABLE OF CONTENTS.**—The table of contents for
 11 this title is as follows:

TITLE I—AIRCRAFT CERTIFICATION, SAFETY, AND
 ACCOUNTABILITY

- Sec. 101. Short title; table of contents.
- Sec. 102. Safety management systems.
- Sec. 103. Expert review of organization designation authorizations for transport airplanes.
- Sec. 104. Certification oversight staff.
- Sec. 105. Disclosure of safety critical information.
- Sec. 106. Limitation on delegation.
- Sec. 107. Oversight of organization designation authorization unit members.
- Sec. 108. Integrated project teams.
- Sec. 109. Oversight integrity briefing.
- Sec. 110. Appeals of certification decisions.
- Sec. 111. Employment restrictions.
- Sec. 112. Professional development, skills enhancement, continuing education and training.
- Sec. 113. Voluntary safety reporting program.
- Sec. 114. Compensation limitation.
- Sec. 115. System safety assessments and other requirements.
- Sec. 116. Flight crew alerting.
- Sec. 117. Changed product rule.
- Sec. 118. Whistleblower protections.
- Sec. 119. Domestic and international pilot training.
- Sec. 120. Nonconformity with approved type design.
- Sec. 121. Implementation of recommendations.
- Sec. 122. Oversight of FAA compliance program.
- Sec. 123. Settlement agreement.
- Sec. 124. Human factors education program.
- Sec. 125. Best practices for organization designation authorizations.
- Sec. 126. Human factors research.

- Sec. 127. FAA Center of Excellence for automated systems and human factors in aircraft.
- Sec. 128. Pilot operational evaluations.
- Sec. 129. Ensuring appropriate responsibility of aircraft certification and flight standards performance objectives and metrics.
- Sec. 130. Transport airplane risk assessment methodology.
- Sec. 131. National air grant fellowship program.
- Sec. 132. Emerging safety trends in aviation.
- Sec. 133. FAA accountability enhancement.
- Sec. 134. Authorization of appropriations for the advanced materials center of excellence.
- Sec. 135. Promoting Aviation Regulations for Technical Training.
- Sec. 136. Independent study on type certification reform.
- Sec. 137. Definitions.

1 **SEC. 102. SAFETY MANAGEMENT SYSTEMS.**

2 (a) RULEMAKING PROCEEDING.—

3 (1) IN GENERAL.—Not later than 30 days after
4 the date of enactment of this title, the Administrator
5 shall initiate a rulemaking proceeding to require that
6 manufacturers that hold both a type certificate and
7 a production certificate issued pursuant to section
8 44704 of title 49, United States Code, where the
9 United States is the State of Design and State of
10 Manufacture, have in place a safety management
11 system that is consistent with the standards and rec-
12 ommended practices established by ICAO and con-
13 tained in annex 19 to the Convention on Inter-
14 national Civil Aviation (61 Stat. 1180), for such sys-
15 tems.

16 (2) CONTENTS OF REGULATIONS.—The regula-
17 tions issued under paragraph (1) shall, at a min-
18 imum—

1 (A) ensure safety management systems are
2 consistent with, and complementary to, existing
3 safety management systems;

4 (B) include provisions that would permit
5 operational feedback from operators and pilots
6 qualified on the manufacturers' equipment to
7 ensure that the operational assumptions made
8 during design and certification remain valid;

9 (C) include provisions for the Administra-
10 tor's approval of, and regular oversight of ad-
11 herence to, a certificate holder's safety manage-
12 ment system adopted pursuant to such regula-
13 tions; and

14 (D) require such certificate holder to
15 adopt, not later than 4 years after the date of
16 enactment of this title, a safety management
17 system.

18 (b) FINAL RULE DEADLINE.—Not later than 24
19 months after initiating the rulemaking under subsection
20 (a), the Administrator shall issue a final rule.

21 (c) SURVEILLANCE AND AUDIT REQUIREMENT.—
22 The final rule issued pursuant to subsection (b) shall in-
23 clude a requirement for the Administrator to implement
24 a systems approach to risk-based surveillance by defining
25 and planning inspections, audits, and monitoring activities

1 on a continuous basis, to ensure that design and produc-
2 tion approval holders of aviation products meet and con-
3 tinue to meet safety management system requirements
4 under the rule.

5 (d) ENGAGEMENT WITH ICAO.—The Administrator
6 shall engage with ICAO and foreign civil aviation authori-
7 ties to help encourage the adoption of safety management
8 systems for manufacturers on a global basis, consistent
9 with ICAO standards.

10 (e) SAFETY REPORTING PROGRAM.—The regulations
11 issued under subsection (a) shall require a safety manage-
12 ment system to include a confidential employee reporting
13 system through which employees can report hazards,
14 issues, concerns, occurrences, and incidents. A reporting
15 system under this subsection shall include provisions for
16 reporting, without concern for reprisal for reporting, of
17 such items by employees in a manner consistent with con-
18 fidential employee reporting systems administered by the
19 Administrator. Such regulations shall also require a cer-
20 tificate holder described in subsection (a) to submit a sum-
21 mary of reports received under this subsection to the Ad-
22 ministrator at least twice per year.

23 (f) CODE OF ETHICS.—The regulations issued under
24 subsection (a) shall require a safety management system
25 to include establishment of a code of ethics applicable to

1 all appropriate employees of a certificate holder, including
2 officers (as determined by the FAA), which clarifies that
3 safety is the organization’s highest priority.

4 (g) PROTECTION OF SAFETY INFORMATION.—Sec-
5 tion 44735(a) of title 49, United States Code, is amend-
6 ed—

7 (1) by striking “title 5 if the report” and in-
8 serting the following: “title 5—

9 “(1) if the report”;

10 (2) by striking the period at the end and insert-
11 ing “; or”; and

12 (3) by adding at the end the following:

13 “(2) if the report, data, or other information is
14 submitted to the Federal Aviation Administration
15 pursuant to section 102(e) of the Aircraft Certifi-
16 cation, Safety, and Accountability Act.”.

17 **SEC. 103. EXPERT REVIEW OF ORGANIZATION DESIGNA-**
18 **TION AUTHORIZATIONS FOR TRANSPORT AIR-**
19 **PLANES.**

20 (a) EXPERT REVIEW.—

21 (1) ESTABLISHMENT.—Not later than 30 days
22 after the date of enactment of this title, the Admin-
23 istrator shall convene an expert panel (in this section
24 referred to as the “review panel”) to review and

1 make findings and recommendations on the matters
2 listed in paragraph (2).

3 (2) CONTENTS OF REVIEW.—With respect to
4 each holder of an organization designation author-
5 ization for the design and production of transport
6 airplanes, the review panel shall review the following:

7 (A) The extent to which the holder’s safety
8 management processes promote or foster a safe-
9 ty culture consistent with the principles of the
10 International Civil Aviation Organization Safety
11 Management Manual, Fourth Edition (Inter-
12 national Civil Aviation Organization Doc. No.
13 9859) or any similar successor document.

14 (B) The effectiveness of measures insti-
15 tuted by the holder to instill, among employees
16 and contractors of such holder that support or-
17 ganization designation authorization functions,
18 a commitment to safety above all other prior-
19 ities.

20 (C) The holder’s capability, based on the
21 holder’s organizational structures, requirements
22 applicable to officers and employees of such
23 holder, and safety culture, of making reasonable
24 and appropriate decisions regarding functions

1 delegated to the holder pursuant to the organi-
2 zation designation authorization.

3 (D) Any other matter determined by the
4 Administrator for which inclusion in the review
5 would be consistent with the public interest in
6 aviation safety.

7 (3) COMPOSITION OF REVIEW PANEL.—The re-
8 view panel shall consist of—

9 (A) 2 representatives of the National Aero-
10 nautics and Space Administration;

11 (B) 2 employees of the Administration's
12 Aircraft Certification Service with experience
13 conducting oversight of persons not involved in
14 the design or production of transport airplanes;

15 (C) 1 employee of the Administration's
16 Aircraft Certification Service with experience
17 conducting oversight of persons involved in the
18 design or production of transport airplanes;

19 (D) 2 employees of the Administration's
20 Flight Standards Service with experience in
21 oversight of safety management systems;

22 (E) 1 appropriately qualified representa-
23 tive, designated by the applicable represented
24 organization, of each of—

1 (i) a labor union representing airline
2 pilots involved in both passenger and all-
3 cargo operations;

4 (ii) a labor union, not selected under
5 clause (i), representing airline pilots with
6 expertise in the matters described in para-
7 graph (2);

8 (iii) a labor union representing em-
9 ployees engaged in the assembly of trans-
10 port airplanes;

11 (iv) the certified bargaining represent-
12 ative under section 7111 of title 5, United
13 States Code, for field engineers engaged in
14 the audit or oversight of an organization
15 designation authorization within the Air-
16 craft Certification Service of the Adminis-
17 tration;

18 (v) the certified bargaining represent-
19 ative for safety inspectors of the Adminis-
20 tration; and

21 (vi) a labor union representing em-
22 ployees engaged in the design of transport
23 airplanes;

1 (F) 2 independent experts who have not
2 served as a political appointee in the Adminis-
3 tration and—

4 (i) who hold either a baccalaureate or
5 postgraduate degree in the field of aero-
6 space engineering or a related discipline;
7 and

8 (ii) who have a minimum of 20 years
9 of relevant applied experience;

10 (G) 4 air carrier employees whose job re-
11 sponsibilities include administration of a safety
12 management system;

13 (H) 4 individuals representing 4 different
14 holders of organization designation authoriza-
15 tions, with preference given to individuals rep-
16 resenting holders of organization designation
17 authorizations for the design or production of
18 aircraft other than transport airplanes or for
19 the design or production of aircraft engines,
20 propellers, or appliances; and

21 (I) 1 individual holding a law degree and
22 who has expertise in the legal duties of a holder
23 of an organization designation authorization
24 and the interaction with the FAA, except that
25 such individual may not, within the 10-year pe-

1 riod preceding the individual's appointment,
2 have been employed by, or provided legal serv-
3 ices to, the holder of an organization designa-
4 tion authorization referenced in paragraph (2).

5 (4) RECOMMENDATIONS.—The review panel
6 shall make recommendations to the Administrator
7 regarding suggested actions to address any defi-
8 ciencies found after review of the matters listed in
9 paragraph (2).

10 (5) REPORT.—

11 (A) SUBMISSION.—Not later than 270
12 days after the date of the first meeting of the
13 review panel, the review panel shall transmit to
14 the Administrator and the congressional com-
15 mittees of jurisdiction a report containing the
16 findings and recommendations of the review
17 panel regarding the matters listed in paragraph
18 (2), except that such report shall include—

19 (i) only such findings endorsed by 10
20 or more individual members of the review
21 panel; and

22 (ii) only such recommendations de-
23 scribed in paragraph (4) endorsed by 18 or
24 more of the individual members of the re-
25 view panel.

1 (B) DISSENTING VIEWS.—In submitting
2 the report required under this paragraph, the
3 review panel shall append to such report the
4 dissenting views of any individual member or
5 group of members of the review panel regarding
6 the findings or recommendations of the review
7 panel.

8 (C) PUBLICATION.—Not later than 5 days
9 after receiving the report under subparagraph
10 (A), the Administrator shall publish such re-
11 port, including any dissenting views appended
12 to the report, on the website of the Administra-
13 tion.

14 (D) TERMINATION.—The review panel
15 shall terminate upon submission of the report
16 under subparagraph (A).

17 (6) ADMINISTRATIVE PROVISIONS.—

18 (A) ACCESS TO INFORMATION.—The re-
19 view panel shall have authority to perform the
20 following actions if a majority of the total num-
21 ber of review panel members consider each ac-
22 tion necessary and appropriate:

23 (i) Entering onto the premises of a
24 holder of an organization designation au-
25 thorization referenced in paragraph (2) for

1 access to and inspection of records or other
2 purposes.

3 (ii) Notwithstanding any other provi-
4 sion of law, accessing and inspecting
5 unredacted records directly necessary for
6 the completion of the panel's work under
7 this section that are in the possession of
8 such holder of an organization designation
9 authorization or the Administration.

10 (iii) Interviewing employees of such
11 holder of an organization designation au-
12 thorization or the Administration as nec-
13 essary for the panel to complete its work.

14 (B) DISCLOSURE OF FINANCIAL INTER-
15 ESTS.—Each individual serving on the review
16 panel shall disclose to the Administrator any fi-
17 nancial interest held by such individual, or a
18 spouse or dependent of such individual, in a
19 business enterprise engaged in the design or
20 production of transport airplanes, aircraft en-
21 gines designed for transport airplanes, or major
22 systems, components, or parts thereof.

23 (C) PROTECTION OF PROPRIETARY INFOR-
24 MATION; TRADE SECRETS.—

1 (i) MARKING.—The custodian of a
2 record accessed under subparagraph (A)
3 may mark such record as proprietary or
4 containing a trade secret. A marking under
5 this subparagraph shall not be dispositive
6 with respect to whether such record con-
7 tains any information subject to legal pro-
8 tections from public disclosure.

9 (ii) NONDISCLOSURE FOR NON-FED-
10 ERAL GOVERNMENT PARTICIPANTS.—

11 (I) NON-FEDERAL GOVERNMENT
12 PARTICIPANTS.—Prior to partici-
13 pating on the review panel, each indi-
14 vidual serving on the review panel rep-
15 resenting a non-Federal entity, includ-
16 ing a labor union, shall execute an
17 agreement with the Administrator in
18 which the individual shall be prohib-
19 ited from disclosing at any time, ex-
20 cept as required by law, to any per-
21 son, foreign or domestic, any non-pub-
22 lic information made accessible to the
23 panel under subparagraph (A).

24 (II) FEDERAL EMPLOYEE PAR-
25 TICIPANTS.—Federal employees serv-

1 ing on the review panel as representa-
2 tives of the Federal Government and
3 who are required to protect propri-
4 etary information and trade secrets
5 under section 1905 of title 18, United
6 States Code, shall not be required to
7 execute agreements under this sub-
8 paragraph.

9 (iii) PROTECTION OF VOLUNTARILY
10 SUBMITTED SAFETY INFORMATION.—Infor-
11 mation subject to protection from disclo-
12 sure by the Administration in accordance
13 with sections 40123 and 44735 of title 49,
14 United States Code, is deemed voluntarily
15 submitted to the Administration under
16 such sections when shared with the review
17 panel and retains its protection from dis-
18 closure (including protection under section
19 552(b)(3) of title 5, United States Code).
20 The custodian of a record subject to such
21 protection may mark such record as sub-
22 ject to statutory protections. A marking
23 under this subparagraph shall not be dis-
24 positive with respect to whether such
25 record contains any information subject to

1 legal protections from public disclosure.
2 Members of the review panel will protect
3 voluntarily submitted safety information
4 and other otherwise exempt information to
5 the extent permitted under applicable law.

6 (iv) PROTECTION OF PROPRIETARY
7 INFORMATION AND TRADE SECRETS.—
8 Members of the review panel will protect
9 proprietary information, trade secrets, and
10 other otherwise exempt information to the
11 extent permitted under applicable law.

12 (v) RESOLVING CLASSIFICATION OF
13 INFORMATION.—If the review panel and a
14 holder of an organization designation au-
15 thorization subject to review under this
16 section disagree as to the proper classifica-
17 tion of information described in this sub-
18 paragraph, then an employee of the Ad-
19 ministration who is not a political ap-
20 pointee shall determine the proper classi-
21 fication of such information and whether
22 such information will be withheld, in part
23 or in full, from release to the public.

1 (D) APPLICABLE LAW.—Public Law 92–
2 463 shall not apply to the panel established
3 under this subsection.

4 (E) FINANCIAL INTEREST DEFINED.—In
5 this paragraph, the term “financial interest”—

6 (i) excludes securities held in an index
7 fund; and

8 (ii) includes—

9 (I) any current or contingent
10 ownership, equity, or security interest;

11 (II) an indebtedness or com-
12 pensated employment relationship; or

13 (III) any right to purchase or ac-
14 quire any such interest, including a
15 stock option or commodity future.

16 (b) FAA AUTHORITY.—

17 (1) IN GENERAL.—After reviewing the findings
18 of the review panel submitted under subsection
19 (a)(5), the Administrator may limit, suspend, or ter-
20minate an organization designation authorization
21subject to review under this section.

22 (2) REINSTATEMENT.—The Administrator may
23condition reinstatement of a limited, suspended, or
24terminated organization designation authorization on

1 the holder's implementation of any corrective actions
2 determined necessary by the Administrator.

3 (3) RULE OF CONSTRUCTION.—Nothing in this
4 subsection shall be construed to limit the Adminis-
5 trator's authority to take any action with respect to
6 an organization designation authorization, including
7 limitation, suspension, or termination of such au-
8 thorization.

9 (c) ORGANIZATION DESIGNATION AUTHORIZATION
10 PROCESS IMPROVEMENTS.—Not later than 1 year after
11 receipt of the recommendations submitted under sub-
12 section (a)(5), the Administrator shall report to the con-
13 gressional committees of jurisdiction on—

14 (1) whether the Administrator has concluded
15 that such holder is able to safely and reliably per-
16 form all delegated functions in accordance with all
17 applicable provisions of chapter 447 of title 49,
18 United States Code, title 14, Code of Federal Regu-
19 lations, and other orders or requirements of the Ad-
20 ministrator, and, if not, the Administrator shall out-
21 line—

22 (A) the risk mitigations or other corrective
23 actions, including the implementation timelines
24 of such mitigations or actions, the Adminis-
25 trator has established for or required of such

1 holder as prerequisites for a conclusion by the
2 Administrator under this paragraph; or

3 (B) the status of any ongoing investigatory
4 actions;

5 (2) the status of implementation of each of the
6 recommendations of the review panel, if any, with
7 which the Administrator concurs;

8 (3) the status of procedures under which the
9 Administrator will conduct focused oversight of such
10 holder's processes for performing delegated functions
11 with respect to the design of new and derivative
12 transport airplanes and the production of such air-
13 planes; and

14 (4) the Administrator's efforts, to the maximum
15 extent practicable and subject to appropriations, to
16 increase the number of engineers, inspectors, and
17 other qualified technical experts, as necessary to ful-
18 fill the requirements of this section, in—

19 (A) each office of the Administration re-
20 sponsible for dedicated oversight of such holder;
21 and

22 (B) the System Oversight Division, or any
23 successor division, of the Aircraft Certification
24 Service.

1 (d) NON-CONCURRENCE WITH RECOMMENDA-
2 TIONS.—Not later than 6 months after receipt of the rec-
3 ommendations submitted under subsection (a)(5), with re-
4 spect to each recommendation of the review panel with
5 which the Administrator does not concur, if any, the Ad-
6 ministrator shall publish on the website of the Administra-
7 tion and submit to the congressional committees of jurisdic-
8 tion a detailed explanation as to why, including if the
9 Administrator believes implementation of such rec-
10 ommendation would not improve aviation safety.

11 **SEC. 104. CERTIFICATION OVERSIGHT STAFF.**

12 (a) AUTHORIZATION OF APPROPRIATIONS.—There is
13 authorized to be appropriated to the Administrator
14 \$27,000,000 for each of fiscal years 2021 through 2023
15 to recruit and retain engineers, safety inspectors, human
16 factors specialists, chief scientific and technical advisors,
17 software and cybersecurity experts, and other qualified
18 technical experts who perform duties related to the certifi-
19 cation of aircraft, aircraft engines, propellers, appliances,
20 and new and emerging technologies, and perform other
21 regulatory activities.

22 (b) IN GENERAL.—Not later than 60 days after the
23 date of enactment of this title, and without duplicating
24 any recently completed or ongoing reviews, the Adminis-
25 trator shall initiate a review of—

1 (1) the inspectors, human factors specialists,
2 flight test pilots, engineers, managers, and execu-
3 tives in the FAA who are responsible for the certifi-
4 cation of the design, manufacture, and operation of
5 aircraft intended for air transportation for purposes
6 of determining whether the FAA has the expertise
7 and capability to adequately understand the safety
8 implications of, and oversee the adoption of, new or
9 innovative technologies, materials, and procedures
10 used by designers and manufacturers of such air-
11 craft; and

12 (2) the Senior Technical Experts Program to
13 determine whether the program should be enhanced
14 or expanded to bolster and support the programs of
15 the FAA's Office of Aviation Safety, with particular
16 focus placed on the Aircraft Certification Service
17 and the Flight Standards Service (or any successor
18 organizations), particularly with respect to under-
19 standing the safety implications of new or innovative
20 technologies, materials, aircraft operations, and pro-
21 cedures used by designers and manufacturers of
22 such aircraft.

23 (c) DEADLINE FOR COMPLETION.—Not later than
24 270 days after the date of enactment of this title, the Ad-

1 administrator shall complete the review required by sub-
2 section (b).

3 (d) BRIEFING.—Not later than 30 days after the
4 completion of the review required by subsection (b), the
5 Administrator shall brief the congressional committees of
6 jurisdiction on the results of the review. The briefing shall
7 include the following:

8 (1) An analysis of the Administration’s ability
9 to hire safety inspectors, human factors specialists,
10 flight test pilots, engineers, managers, executives,
11 scientists, and technical advisors, who have the req-
12 uisite expertise to oversee new developments in aero-
13 space design and manufacturing.

14 (2) A plan for the Administration to improve
15 the overall expertise of the FAA’s personnel who are
16 responsible for the oversight of the design and man-
17 ufacture of aircraft.

18 (e) CONSULTATION REQUIREMENT.—In completing
19 the review under subsection (b), the Administrator shall
20 consult and collaborate with appropriate stakeholders, in-
21 cluding labor organizations (including those representing
22 aviation workers, FAA aviation safety engineers, human
23 factors specialists, flight test pilots, and FAA aviation
24 safety inspectors), and aerospace manufacturers.

25 (f) RECRUITMENT AND RETENTION.—

1 (1) BARGAINING UNITS.—Not later than 30
2 days after the date of enactment of this title, the
3 Administrator shall begin collaboration with the ex-
4 clusive bargaining representatives of engineers, safe-
5 ty inspectors, systems safety specialists, and other
6 qualified technical experts certified under section
7 7111 of title 5, United States Code, to improve re-
8 cruitment of employees for, and to implement reten-
9 tion incentives for employees holding, positions with
10 respect to the certification of aircraft, aircraft en-
11 gines, propellers, and appliances. If the Adminis-
12 trator and such representatives are unable to reach
13 an agreement collaboratively, the Administrator and
14 such representatives shall negotiate in accordance
15 with section 40122(a) of title 49, United States
16 Code, to improve recruitment and implement reten-
17 tion incentives for employees described in subsection
18 (a) who are covered under a collective bargaining
19 agreement.

20 (2) OTHER EMPLOYEES.—Notwithstanding any
21 other provision of law, not later than 30 days after
22 the date of enactment of this title, the Administrator
23 shall initiate actions to improve recruitment of, and
24 implement retention incentives for, any individual

1 described in subsection (a) who is not covered under
2 a collective bargaining agreement.

3 (3) **RULE OF CONSTRUCTION.**—Nothing in this
4 section shall be construed to vest in any exclusive
5 bargaining representative any management right of
6 the Administrator, as such right existed on the day
7 before the date of enactment of this title.

8 (4) **AVAILABILITY OF APPROPRIATIONS.**—Any
9 action taken by the Administrator under this section
10 shall be subject to the availability of appropriations
11 authorized under subsection (a).

12 **SEC. 105. DISCLOSURE OF SAFETY CRITICAL INFORMA-**
13 **TION.**

14 (a) **DISCLOSURE.**—Section 44704 of title 49, United
15 States Code, is amended by striking subsection (e) and
16 inserting the following:

17 “(e) **DISCLOSURE OF SAFETY CRITICAL INFORMA-**
18 **TION.**—

19 “(1) **IN GENERAL.**—Notwithstanding a delega-
20 tion described in section 44702(d), the Adminis-
21 trator shall require an applicant for, or holder of, a
22 type certificate for a transport category airplane cov-
23 ered under part 25 of title 14, Code of Federal Reg-
24 ulations, to submit safety critical information with
25 respect to such airplane to the Administrator in such

1 form, manner, or time as the Administrator may re-
2 quire. Such safety critical information shall in-
3 clude—

4 “(A) any design and operational details,
5 intended functions, and failure modes of any
6 system that, without being commanded by the
7 flight crew, commands the operation of any
8 safety critical function or feature required for
9 control of an airplane during flight or that oth-
10 erwise changes the flight path or airspeed of an
11 airplane;

12 “(B) the design and operational details, in-
13 tended functions, failure modes, and mode
14 annunciations of autopilot and autothrottle sys-
15 tems, if applicable;

16 “(C) any failure or operating condition
17 that the applicant or holder anticipates or has
18 concluded would result in an outcome with a se-
19 verity level of hazardous or catastrophic, as de-
20 fined in the appropriate Administration air-
21 worthiness requirements and guidance applica-
22 ble to transport category airplanes defining risk
23 severity;

24 “(D) any adverse handling quality that
25 fails to meet the requirements of applicable reg-

1 ulations without the addition of a software sys-
2 tem to augment the flight controls of the air-
3 plane to produce compliant handling qualities;
4 and

5 “(E) a system safety assessment with re-
6 spect to a system described in subparagraph
7 (A) or (B) or with respect to any component or
8 other system for which failure or erroneous op-
9 eration of such component or system could re-
10 sult in an outcome with a severity level of haz-
11 ardous or catastrophic, as defined in the appro-
12 priate Administration airworthiness require-
13 ments and guidance applicable to transport cat-
14 egory airplanes defining risk severity.

15 “(2) ONGOING COMMUNICATIONS.—

16 “(A) NEWLY DISCOVERED INFORMA-
17 TION.—The Administrator shall require that an
18 applicant for, or holder of, a type certificate
19 disclose to the Administrator, in such form,
20 manner, or time as the Administrator may re-
21 quire, any newly discovered information or de-
22 sign or analysis change that would materially
23 alter any submission to the Administrator
24 under paragraph (1).

1 “(B) SYSTEM DEVELOPMENT CHANGES.—

2 The Administrator shall establish multiple mile-
3 stones throughout the certification process at
4 which a proposed airplane system will be as-
5 sessed to determine whether any change to such
6 system during the certification process is such
7 that such system should be considered novel or
8 unusual by the Administrator.

9 “(3) FLIGHT MANUALS.—The Administrator
10 shall ensure that an airplane flight manual and a
11 flight crew operating manual (as appropriate or ap-
12 plicable) for an airplane contains a description of the
13 operation of a system described in paragraph (1)(A)
14 and flight crew procedures for responding to a fail-
15 ure or aberrant operation of such system.

16 “(4) CIVIL PENALTY.—

17 “(A) AMOUNT.—Notwithstanding section
18 46301, an applicant for, or holder of, a type
19 certificate that knowingly violates paragraph
20 (1), (2), or (3) of this subsection shall be liable
21 to the Administrator for a civil penalty of not
22 more than \$1,000,000 for each violation.

23 “(B) PENALTY CONSIDERATIONS.—In de-
24 termining the amount of a civil penalty under

1 subparagraph (A), the Administrator shall con-
2 sider—

3 “(i) the nature, circumstances, extent,
4 and gravity of the violation, including the
5 length of time that such safety critical in-
6 formation was known but not disclosed;
7 and

8 “(ii) with respect to the violator, the
9 degree of culpability, any history of prior
10 violations, and the size of the business con-
11 cern.

12 “(5) REVOCATION AND CIVIL PENALTY FOR IN-
13 DIVIDUALS.—

14 “(A) IN GENERAL.—The Administrator
15 shall revoke any airline transport pilot certifi-
16 cate issued under section 44703 held by any in-
17 dividual who, while acting on behalf of an appli-
18 cant for, or holder of, a type certificate, know-
19 ingly makes a false statement with respect to
20 any of the matters described in subparagraphs
21 (A) through (E) of paragraph (1).

22 “(B) AUTHORITY TO IMPOSE CIVIL PEN-
23 ALTY.—The Administrator may impose a civil
24 penalty under section 46301 for each violation
25 described in subparagraph (A).

1 “(6) RULE OF CONSTRUCTION.—Nothing in
2 this subsection shall be construed to affect or other-
3 wise inhibit the authority of the Administrator to
4 deny an application by an applicant for a type cer-
5 tificate or to revoke or amend a type certificate of
6 a holder of such certificate.

7 “(7) DEFINITION OF TYPE CERTIFICATE.—In
8 this subsection, the term ‘type certificate’—

9 “(A) means a type certificate issued under
10 subsection (a) or an amendment to such certifi-
11 cate; and

12 “(B) does not include a supplemental type
13 certificate issued under subsection (b).”.

14 (b) CIVIL PENALTY AUTHORITY.—Section 44704 of
15 title 49, United States Code, is further amended by adding
16 at the end the following:

17 “(f) HEARING REQUIREMENT.—The Administrator
18 may find that a person has violated subsection (a)(6) or
19 paragraph (1), (2), or (3) of subsection (e) and impose
20 a civil penalty under the applicable subsection only after
21 notice and an opportunity for a hearing. The Adminis-
22 trator shall provide a person—

23 “(1) written notice of the violation and the
24 amount of penalty; and

1 “(2) the opportunity for a hearing under sub-
2 part G of part 13 of title 14, Code of Federal Regu-
3 lations.”.

4 (c) REQUIRED SUBMISSION OF OUTLINE OF SYSTEM
5 CHANGES AT THE BEGINNING OF THE CERTIFICATION
6 PROCESS.—

7 (1) IN GENERAL.—Not later than 180 days
8 after the date of enactment of this title, the Admin-
9 istrator shall initiate a process to revise procedures
10 to require an applicant for an amendment to a type
11 certificate for a transport category aircraft to dis-
12 close to the Administrator, in a single document sub-
13 mitted at the beginning of the process for amending
14 such certificate, all new systems and intended
15 changes to existing systems then known to such ap-
16 plicant. The Administrator shall finalize the revision
17 of such procedures not later than 18 months after
18 initiating such process.

19 (2) APPLICATION.—Compliance with the proce-
20 dures revised pursuant to paragraph (1) shall not
21 preclude an applicant from making additional
22 changes to aircraft systems as the design and appli-
23 cation process proceeds.

24 (3) SAVINGS PROVISION.—Nothing in this sub-
25 section may be construed to limit the obligations of

1 an applicant for an amended type certificate for a
2 transport category airplane under section 44704(e)
3 of title 49, United States Code, as amended in this
4 title.

5 **SEC. 106. LIMITATION ON DELEGATION.**

6 Section 44702(d) of title 49, United States Code, is
7 amended by adding at the end the following:

8 “(4)(A) With respect to a critical system design fea-
9 ture of a transport category airplane, the Administrator
10 may not delegate any finding of compliance with applica-
11 ble airworthiness standards or review of any system safety
12 assessment required for the issuance of a certificate, in-
13 cluding a type certificate, or amended or supplemental
14 type certificate, under section 44704, until the Adminis-
15 trator has reviewed and validated any underlying assump-
16 tions related to human factors.

17 “(B) The requirement under subparagraph (A) shall
18 not apply if the Administrator determines the matter in-
19 volved is a routine task.

20 “(C) For purposes of subparagraph (A), the term
21 critical system design feature includes any feature (includ-
22 ing a novel or unusual design feature) for which the failure
23 of such feature, either independently or in combination
24 with other failures, could result in catastrophic or haz-

1 arduous failure conditions, as those terms are defined by
2 the Administrator.”.

3 **SEC. 107. OVERSIGHT OF ORGANIZATION DESIGNATION AU-**
4 **THORIZATION UNIT MEMBERS.**

5 (a) IN GENERAL.—Chapter 447 of title 49, United
6 States Code, is amended by adding at the end the fol-
7 lowing:

8 **“§ 44741. Approval of organization designation au-**
9 **thorization unit members**

10 “(a) IN GENERAL.—Beginning January 1, 2022,
11 each individual who is selected on or after such date to
12 become an ODA unit member by an ODA holder engaged
13 in the design of an aircraft, aircraft engine, propeller, or
14 appliance and performs an authorized function pursuant
15 to a delegation by the Administrator of the Federal Avia-
16 tion Administration under section 44702(d)—

17 “(1) shall be—

18 “(A) an employee, a contractor, or a con-
19 sultant of the ODA holder; or

20 “(B) the employee of a supplier of the
21 ODA holder; and

22 “(2) may not become a member of such unit
23 unless approved by the Administrator pursuant to
24 this section.

25 “(b) PROCESS AND TIMELINE.—

1 “(1) IN GENERAL.—The Administrator shall
2 maintain an efficient process for the review and ap-
3 proval of an individual to become an ODA unit
4 member under this section.

5 “(2) PROCESS.—An ODA holder described in
6 subsection (a) may submit to the Administrator an
7 application for an individual to be approved to be-
8 come an ODA unit member under this section. The
9 application shall be submitted in such form and
10 manner as the Administrator determines appro-
11 priate. The Administrator shall require an ODA
12 holder to submit with such an application informa-
13 tion sufficient to demonstrate an individual’s quali-
14 fications under subsection (c).

15 “(3) TIMELINE.—The Administrator shall ap-
16 prove or reject an individual that is selected by an
17 ODA holder to become an ODA unit member under
18 this section not later than 30 days after the receipt
19 of an application by an ODA holder.

20 “(4) DOCUMENTATION OF APPROVAL.—Upon
21 approval of an individual to become an ODA unit
22 member under this section, the Administrator shall
23 provide such individual a letter confirming that such
24 individual has been approved by the Administrator
25 under this section to be an ODA unit member.

1 “(5) REAPPLICATION.—An ODA holder may
2 submit an application under this subsection for an
3 individual to become an ODA unit member under
4 this section regardless of whether an application for
5 such individual was previously rejected by the Ad-
6 ministrator.

7 “(c) QUALIFICATIONS.—

8 “(1) IN GENERAL.—The Administrator shall
9 issue minimum qualifications for an individual to be-
10 come an ODA unit member under this section. In
11 issuing such qualifications, the Administrator shall
12 consider existing qualifications for Administration
13 employees with similar duties and whether such indi-
14 vidual—

15 “(A) is technically proficient and qualified
16 to perform the authorized functions sought;

17 “(B) has no recent record of serious en-
18 forcement action, as determined by the Admin-
19 istrator, taken by the Administrator with re-
20 spect to any certificate, approval, or authoriza-
21 tion held by such individual;

22 “(C) is of good moral character (as such
23 qualification is applied to an applicant for an
24 airline transport pilot certificate issued under
25 section 44703);

1 “(D) possesses the knowledge of applicable
2 design or production requirements in this chap-
3 ter and in title 14, Code of Federal Regula-
4 tions, necessary for performance of the author-
5 ized functions sought;

6 “(E) possesses a high degree of knowledge
7 of applicable design or production principles,
8 system safety principles, or safety risk manage-
9 ment processes appropriate for the authorized
10 functions sought; and

11 “(F) meets such testing, examination,
12 training, or other qualification standards as the
13 Administrator determines are necessary to en-
14 sure the individual is competent and capable of
15 performing the authorized functions sought.

16 “(2) PREVIOUSLY REJECTED APPLICATION.—In
17 reviewing an application for an individual to become
18 an ODA unit member under this section, if an appli-
19 cation for such individual was previously rejected,
20 the Administrator shall ensure that the reasons for
21 the prior rejection have been resolved or mitigated to
22 the Administrator’s satisfaction before making a de-
23 termination on the individual’s reapplication.

24 “(d) RESCISSION OF APPROVAL.—The Administrator
25 may rescind an approval of an individual as an ODA unit

1 member granted pursuant to this section at any time and
2 for any reason the Administrator considers appropriate.
3 The Administrator shall develop procedures to provide for
4 notice and opportunity to appeal rescission decisions made
5 by the Administrator. Such decisions by the Administrator
6 are not subject to judicial review.

7 “(e) **CONDITIONAL SELECTIONS.**—

8 “(1) **IN GENERAL.**—Subject to the require-
9 ments of this subsection, the Administrator may au-
10 thorize an ODA holder to conditionally designate an
11 individual to perform the functions of an ODA unit
12 member for a period of not more than 30 days (be-
13 ginning on the date an application for such indi-
14 vidual is submitted under subsection (b)(2)).

15 “(2) **REQUIRED DETERMINATION.**—The Admin-
16 istrator may not make an authorization under para-
17 graph (1) unless—

18 “(A) the ODA holder has instituted, to the
19 Administrator’s satisfaction, systems and proc-
20 esses to ensure the integrity and reliability of
21 determinations by conditionally-designated ODA
22 unit members; and

23 “(B) the ODA holder has instituted a safe-
24 ty management system in accordance with regu-
25 lations issued by the Administrator under sec-

1 tion 102 of the Aircraft Certification, Safety,
2 and Accountability Act.

3 “(3) FINAL DETERMINATION.—The Adminis-
4 trator shall approve or reject the application for an
5 individual designated under paragraph (1) in accord-
6 ance with the timeline and procedures described in
7 subsection (b).

8 “(4) REJECTION AND REVIEW.—If the Admin-
9 istrator rejects the application submitted under sub-
10 section (b)(2) for an individual conditionally des-
11 ignated under paragraph (1), the Administrator
12 shall review and approve or disapprove any decision
13 pursuant to any authorized function performed by
14 such individual during the period such individual
15 served as a conditional designee.

16 “(5) PROHIBITIONS.—Notwithstanding the re-
17 quirements of paragraph (2), the Administrator may
18 prohibit an ODA holder from making conditional
19 designations of individuals as ODA unit members
20 under this subsection at any time for any reason the
21 Administrator considers appropriate. The Adminis-
22 trator may prohibit any conditionally designated in-
23 dividual from performing an authorized function at
24 any time for any reason the Administrator considers
25 appropriate.

1 “(f) RECORDS AND BRIEFINGS.—

2 “(1) IN GENERAL.—Beginning on the date de-
3 scribed in subsection (a), an ODA holder shall main-
4 tain, for a period to be determined by the Adminis-
5 trator and with proper protections to ensure the se-
6 curity of sensitive and personal information—

7 “(A) any data, applications, records, or
8 manuals required by the ODA holder’s ap-
9 proved procedures manual, as determined by
10 the Administrator;

11 “(B) the names, responsibilities, qualifica-
12 tions, and example signature of each member of
13 the ODA unit who performs an authorized
14 function pursuant to a delegation by the Ad-
15 ministrator under section 44702(d);

16 “(C) training records for ODA unit mem-
17 bers and ODA administrators; and

18 “(D) any other data, applications, records,
19 or manuals determined appropriate by the Ad-
20 ministrator.

21 “(2) CONGRESSIONAL BRIEFING.—Not later
22 than 90 days after the date of enactment of this sec-
23 tion, and every 90 days thereafter through Sep-
24 tember 30, 2023, the Administrator shall provide a
25 briefing to the Committee on Transportation and In-

1 frastructure of the House of Representatives and the
2 Committee on Commerce, Science, and Transpor-
3 tation of the Senate on the implementation and ef-
4 fects of this section, including—

5 “(A) the Administration’s performance in
6 completing reviews of individuals and approving
7 or denying such individuals within the timeline
8 required under subsection (b)(3);

9 “(B) for any individual rejected by the Ad-
10 ministrator under subsection (b) during the
11 preceding 90-day period, the reasoning or basis
12 for such rejection; and

13 “(C) any resource, staffing, or other chal-
14 lenges within the Administration associated
15 with implementation of this section.

16 “(g) SPECIAL REVIEW OF QUALIFICATIONS.—

17 “(1) IN GENERAL.—Not later than 30 days
18 after the issuance of minimum qualifications under
19 subsection (e), the Administrator shall initiate a re-
20 view of the qualifications of each individual who on
21 the date on which such minimum qualifications are
22 issued is an ODA unit member or a holder of a type
23 certificate for a transport airplane to ensure such in-
24 dividual meets the minimum qualifications issued by
25 the Administrator under subsection (e).

1 “(2) UNQUALIFIED INDIVIDUAL.—For any indi-
2 vidual who is determined by the Administrator not
3 to meet such minimum qualifications pursuant to
4 the review conducted under paragraph (1), the Ad-
5 ministrator—

6 “(A) shall determine whether the lack of
7 qualification may be remedied and, if so, pro-
8 vide such individual with an action plan or
9 schedule for such individual to meet such quali-
10 fications; or

11 “(B) may, if the Administrator determines
12 the lack of qualification may not be remedied,
13 take appropriate action, including prohibiting
14 such individual from performing an authorized
15 function.

16 “(3) DEADLINE.—The Administrator shall com-
17 plete the review required under paragraph (1) not
18 later than 18 months after the date on which such
19 review was initiated.

20 “(4) SAVINGS CLAUSE.—An individual approved
21 to become an ODA unit member of a holder of a
22 type certificate for a transport airplane under sub-
23 section (a) shall not be subject to the review under
24 this subsection.

1 “(h) PROHIBITION.—The Administrator may not au-
2 thorize an organization or ODA holder to approve an indi-
3 vidual selected by an ODA holder to become an ODA unit
4 member under this section.

5 “(i) DEFINITIONS.—

6 “(1) GENERAL APPLICABILITY.—The defini-
7 tions contained in section 44736(c) shall apply to
8 this section.

9 “(2) TRANSPORT AIRPLANE.—The term ‘trans-
10 port airplane’ means a transport category airplane
11 designed for operation by an air carrier or foreign
12 air carrier type-certificated with a passenger seating
13 capacity of 30 or more or an all-cargo or combi de-
14 rivative of such an airplane.

15 “(j) AUTHORIZATION OF APPROPRIATIONS.—There
16 is authorized to be appropriated to carry out this section
17 \$3,000,000 for each of fiscal years 2021 through 2023.

18 **“§ 44742. Interference with the duties of organization
19 designation authorization unit members**

20 “(a) IN GENERAL.—The Administrator of the Fed-
21 eral Aviation Administration shall continuously seek to
22 eliminate or minimize interference by an ODA holder that
23 affects the performance of authorized functions by ODA
24 unit members.

25 “(b) PROHIBITION.—

1 “(1) IN GENERAL.—It shall be unlawful for any
2 individual who is a supervisory employee of an ODA
3 holder that manufactures a transport category air-
4 plane to commit an act of interference with an ODA
5 unit member’s performance of authorized functions.

6 “(2) CIVIL PENALTY.—

7 “(A) INDIVIDUALS.—An individual shall be
8 subject to a civil penalty under section
9 46301(a)(1) for each violation under paragraph
10 (1).

11 “(B) SAVINGS CLAUSE.—Nothing in this
12 paragraph shall be construed as limiting or con-
13 stricting any other authority of the Adminis-
14 trator to pursue an enforcement action against
15 an individual or organization for violation of ap-
16 plicable Federal laws or regulations of the Ad-
17 ministration.

18 “(c) REPORTING.—

19 “(1) REPORTS TO ODA HOLDER.—An ODA unit
20 member of an ODA holder that manufactures a
21 transport category airplane shall promptly report
22 any instances of interference to the office of the
23 ODA holder that is designated to receive such re-
24 ports.

25 “(2) REPORTS TO THE FAA.—

1 “(A) IN GENERAL.—The ODA holder of-
2 fice described in paragraph (1) shall investigate
3 reports and submit to the office of the Adminis-
4 tration designated by the Administrator to ac-
5 cept and review such reports any instances of
6 interference reported under paragraph (1).

7 “(B) CONTENTS.—The Administrator shall
8 prescribe parameters for the submission of re-
9 ports to the Administration under this para-
10 graph, including the manner, time, and form of
11 submission. Such report shall include the re-
12 sults of any investigation conducted by the
13 ODA holder in response to a report of inter-
14 ference, a description of any action taken by the
15 ODA holder as a result of the report of inter-
16 ference, and any other information or poten-
17 tially mitigating factors the ODA holder or the
18 Administrator deems appropriate.

19 “(d) DEFINITIONS.—

20 “(1) GENERAL APPLICABILITY.—The defini-
21 tions contained in section 44736(c) shall apply to
22 this section.

23 “(2) INTERFERENCE.—In this section, the term
24 ‘interference’ means—

1 “(A) blatant or egregious statements or be-
2 havior, such as harassment, beratement, or
3 threats, that a reasonable person would con-
4 clude was intended to improperly influence or
5 prejudice an ODA unit member’s performance
6 of his or her duties; or

7 “(B) the presence of non-ODA unit duties
8 or activities that conflict with the performance
9 of authorized functions by ODA unit mem-
10 bers.”.

11 (b) ODA PROGRAM ENHANCEMENTS.—

12 (1) IN GENERAL.—Section 44736 of title 49,
13 United States Code, is amended by adding at the
14 end the following:

15 “(d) AUDITS.—

16 “(1) IN GENERAL.—The Administrator shall
17 perform a periodic audit of each ODA unit and its
18 procedures.

19 “(2) DURATION.—An audit required under
20 paragraph (1) shall be performed with respect to an
21 ODA holder once every 7 years (or more frequently
22 as determined appropriate by the Administrator).

23 “(3) RECORDS.—The ODA holder shall main-
24 tain, for a period to be determined by the Adminis-
25 trator, a record of—

1 “(A) each audit conducted under this sub-
2 section; and

3 “(B) any corrective actions resulting from
4 each such audit.

5 “(e) FEDERAL AVIATION SAFETY ADVISORS.—

6 “(1) IN GENERAL.—In the case of an ODA
7 holder, the Administrator shall assign FAA aviation
8 safety personnel with appropriate expertise to be ad-
9 visors to the ODA unit members that are authorized
10 to make findings of compliance on behalf of the Ad-
11 ministrator. The advisors shall—

12 “(A) communicate with assigned unit
13 members on an ongoing basis to ensure that the
14 assigned unit members are knowledgeable of
15 relevant FAA policies and acceptable methods
16 of compliance; and

17 “(B) monitor the performance of the as-
18 signed unit members to ensure consistency with
19 such policies.

20 “(2) APPLICABILITY.—Paragraph (1) shall only
21 apply to an ODA holder that is—

22 “(A) a manufacturer that holds both a
23 type and a production certificate for—

1 “(i) transport category airplanes with
2 a maximum takeoff gross weight greater
3 than 150,000 pounds; or

4 “(ii) airplanes produced and delivered
5 to operators operating under part 121 of
6 title 14, Code of Federal Regulations, for
7 air carrier service under such part 121; or

8 “(B) a manufacturer of engines for an air-
9 plane described in subparagraph (A).

10 “(f) COMMUNICATION WITH THE FAA.—Neither the
11 Administrator nor an ODA holder may prohibit—

12 “(1) an ODA unit member from communicating
13 with, or seeking the advice of, the Administrator or
14 FAA staff; or

15 “(2) the Administrator or FAA staff from com-
16 municating with an ODA unit member.”.

17 “(2) REPORT.—Not later than September 30,
18 2022, the Administrator shall submit to the congress-
19 sional committees of jurisdiction a report on the im-
20 plementation of subsections (d) and (e) of section
21 44736 of title 49, United States Code, as added by
22 subsection (b).

23 “(c) ADDITIONAL ODA PROGRAM ENHANCEMENTS.—
24 Section 44736 of title 49, United States Code, is amend-
25 ed—

- 1 (1) in subsection (a)—
- 2 (A) in paragraph (1)—
- 3 (i) in subparagraph (A) by striking
- 4 the semicolon and inserting “; and”;
- 5 (ii) by striking subparagraph (B);
- 6 (iii) in subparagraph (C) by striking
- 7 “; and” and inserting a period;
- 8 (iv) by striking subparagraph (D);
- 9 and
- 10 (v) by redesignating subparagraph (C)
- 11 as subparagraph (B); and
- 12 (B) in paragraph (3) by striking “shall—
- 13 ” and all that follows through the end and in-
- 14 serting “shall conduct regular oversight activi-
- 15 ties by inspecting the ODA holder’s delegated
- 16 functions and taking action based on validated
- 17 inspection findings.”; and
- 18 (2) in subsection (b)(3)—
- 19 (A) in subparagraph (A)—
- 20 (i) by striking clause (i) and redesign-
- 21 ating clauses (ii), (iii), and (iv) as clauses
- 22 (i), (ii), and (iii), respectively;
- 23 (ii) in clause (i) as redesignated by in-
- 24 serting “, as appropriate,” after “require”;

1 (iii) in clause (ii) as redesignated by
2 inserting “, as appropriate,” after “re-
3 quire”; and

4 (iv) in clause (iii) as redesignated by
5 inserting “when appropriate,” before
6 “make a reassessment”;

7 (B) by striking subparagraph (B);

8 (C) in subparagraph (F) by inserting “,
9 when appropriate,” before “approve”; and

10 (D) by redesignating subparagraphs (C),
11 (D), (E), and (F) as subparagraphs (B), (C),
12 (D), and (E), respectively.

13 (d) TECHNICAL CORRECTIONS.—

14 (1) SECTION 44737.—Chapter 447 of title 49,
15 United States Code, is further amended by redesign-
16 ating the second section 44737 (as added by sec-
17 tion 581 of the FAA Reauthorization Act of 2018)
18 as section 44740.

19 (2) ANALYSIS.—The analysis for chapter 447 of
20 title 49, United States Code, is amended—

21 (A) by striking the item relating to the
22 second section 44737 (as added by section 581
23 of the FAA Reauthorization Act of 2018); and

24 (B) by inserting after the item relating to
25 section 44739 the following new items:

“44740. Special rule for certain aircraft operations.

“44741. Approval of organization designation authorization unit members.

“44742. Interference with the duties of organization designation authorization unit members.”.

1 (3) SPECIAL RULE FOR CERTAIN AIRCRAFT OP-
2 ERATIONS.—Section 44740 of title 49, United States
3 Code (as redesignated by paragraph (1)), is amend-
4 ed—

5 (A) in the heading by striking the period
6 at the end;

7 (B) in subsection (a)(1) by striking “chap-
8 ter” and inserting “section”;

9 (C) in subsection (b)(1) by striking “(1)”
10 the second time it appears; and

11 (D) in subsection (e)(2) by adding a period
12 at the end.

13 **SEC. 108. INTEGRATED PROJECT TEAMS.**

14 (a) IN GENERAL.—Upon receipt of an application for
15 a type certificate for a transport category airplane, the
16 Administrator shall convene an interdisciplinary inte-
17 grated project team responsible for coordinating review
18 and providing advice and recommendations, as appro-
19 priate, to the Administrator on such application.

20 (b) MEMBERSHIP.—In convening an interdisciplinary
21 integrated project team under subsection (a), the Adminis-
22 trator shall appoint employees of the Administration or
23 other Federal agencies, such as the Air Force, Volpe Na-
24 tional Transportation Systems Center, or the National

1 Aeronautics and Space Administration (with the concur-
2 rence of the head of such other Federal agency), with spe-
3 cialized expertise and experience in the fields of engineer-
4 ing, systems design, human factors, and pilot training, in-
5 cluding, at a minimum—

6 (1) not less than 1 designee of the Associate
7 Administrator for Aviation Safety whose duty sta-
8 tion is in the Administration's headquarters;

9 (2) representatives of the Aircraft Certification
10 Service of the Administration;

11 (3) representatives of the Flight Standards
12 Service of the Administration;

13 (4) experts in the fields of human factors, aero-
14 dynamics, flight controls, software, and systems de-
15 sign; and

16 (5) any other subject matter expert whom the
17 Administrator determines appropriate.

18 (c) AVAILABILITY.—In order to carry out its duties
19 with respect to the areas specified in subsection (d), a
20 project team shall be available to the Administrator, upon
21 request, at any time during the certification process.

22 (d) DUTIES.—A project team shall advise the Admin-
23 istrator and make written recommendations to the Admin-
24 istrator, to be retained in the certification project file, in-
25 cluding recommendations for any plans, analyses, assess-

1 ments, and reports required to support and document the
2 certification project, in the following areas associated with
3 a new technology or novel design:

4 (1) Initial review of design proposals proposed
5 by the applicant and the establishment of the certifi-
6 cation basis.

7 (2) Identification of new technology, novel de-
8 sign, or safety critical design features or systems
9 that are potentially catastrophic, either alone or in
10 combination with another failure.

11 (3) Determination of compliance findings, sys-
12 tem safety assessments, and safety critical functions
13 the Administration should retain in terms of new
14 technology, novel design, or safety critical design
15 features or systems.

16 (4) Evaluation of the Administration's expertise
17 or experience necessary to support the project.

18 (5) Review and evaluation of an applicant's re-
19 quest for exceptions or exemptions from compliance
20 with airworthiness standards codified in title 14 of
21 the Code of Federal Regulations, as in effect on the
22 date of application for the change.

23 (6) Conduct of design reviews, procedure eval-
24 uations, and training evaluations.

1 (7) Review of the applicant's final design docu-
2 mentation and other data to evaluate compliance
3 with all relevant Administration regulations.

4 (e) DOCUMENTATION OF FAA RESPONSE.—The Ad-
5 ministrators shall provide a written response to each rec-
6 ommendation of each project team and shall retain such
7 response in the certification project file.

8 (f) REPORT.—Not later than 1 year after the date
9 of enactment of this section, and annually thereafter
10 through fiscal year 2023, the Administrator shall submit
11 to the congressional committees of jurisdiction a report
12 on the establishment of each integrated project team in
13 accordance with this section during such fiscal year, in-
14 cluding the role and composition of each such project
15 team.

16 **SEC. 109. OVERSIGHT INTEGRITY BRIEFING.**

17 Not later than 1 year after the date of enactment
18 of this title, the Administrator shall brief the congressional
19 committees of jurisdiction on specific measures the Ad-
20 ministrators have taken to reinforce that each employee of
21 the Administration responsible for overseeing an organiza-
22 tion designation authorization with respect to the certifi-
23 cation of aircraft perform such responsibility in accord-
24 ance with safety management principles and in the public
25 interest of aviation safety.

1 **SEC. 110. APPEALS OF CERTIFICATION DECISIONS.**

2 (a) IN GENERAL.—Section 44704, of title 49, United
3 States Code, as amended by section 105(b), is further
4 amended by adding at the end the following:

5 “(g) CERTIFICATION DISPUTE RESOLUTION.—

6 “(1) DISPUTE RESOLUTION PROCESS AND AP-
7 PEALS.—

8 “(A) IN GENERAL.—Not later than 60
9 days after the date of enactment of this sub-
10 section, the Administrator shall issue an order
11 establishing—

12 “(i) an effective, timely, and mile-
13 stone-based issue resolution process for
14 type certification activities under sub-
15 section (a); and

16 “(ii) a process by which a decision,
17 finding of compliance or noncompliance, or
18 other act of the Administration, with re-
19 spect to compliance with design require-
20 ments, may be appealed by a covered per-
21 son directly involved with the certification
22 activities in dispute on the basis that such
23 decision, finding, or act is erroneous or in-
24 consistent with this chapter, regulations, or
25 guidance materials promulgated by the Ad-
26 ministrator, or other requirements.

1 “(B) ESCALATION.—The order issued
2 under subparagraph (A) shall provide processes
3 for—

4 “(i) resolution of technical issues at
5 pre-established stages of the certification
6 process, as agreed to by the Administrator
7 and the type certificate applicant;

8 “(ii) automatic elevation to appro-
9 priate management personnel of the Ad-
10 ministration and the type certificate appli-
11 cant of any major certification process
12 milestone that is not completed or resolved
13 within a specific period of time agreed to
14 by the Administrator and the type certifi-
15 cate applicant;

16 “(iii) resolution of a major certifi-
17 cation process milestone elevated pursuant
18 to clause (ii) within a specific period of
19 time agreed to by the Administrator and
20 the type certificate applicant;

21 “(iv) initial review by appropriate Ad-
22 ministration employees of any appeal de-
23 scribed in subparagraph (A)(ii); and

24 “(v) subsequent review of any further
25 appeal by appropriate management per-

1 sonnel of the Administration and the Asso-
2 ciate Administrator for Aviation Safety.

3 “(C) DISPOSITION.—

4 “ (i) WRITTEN DECISION.—The Asso-
5 ciate Administrator for Aviation Safety
6 shall issue a written decision that states
7 the grounds for the decision of the Asso-
8 ciate Administrator on—

9 “ (I) each appeal submitted under
10 subparagraph (A)(ii); and

11 “ (II) An appeal to the Associate
12 Administrator submitted under sub-
13 paragraph (B)(v).

14 “(ii) REPORT TO CONGRESS.—Not
15 later than December 31 of each calendar
16 year through calendar year 2025, the Ad-
17 ministrators shall submit to the Committee
18 on Transportation and Infrastructure of
19 the House of Representatives and the
20 Committee on Commerce, Science, and
21 Transportation of the Senate a report
22 summarizing each appeal resolved under
23 this subsection.

24 “(D) FINAL REVIEW.—

1 “(i) IN GENERAL.—A written decision
2 of the Associate Administrator under sub-
3 paragraph (C) may be appealed to the Ad-
4 ministrators for a final review and deter-
5 mination.

6 “(ii) DECLINE TO REVIEW.—The Ad-
7 ministrators may decline to review an ap-
8 peal initiated pursuant to clause (i).

9 “(iii) JUDICIAL REVIEW.—No decision
10 under this paragraph (including a decision
11 to decline to review an appeal) shall be
12 subject to judicial review.

13 “(2) PROHIBITED CONTACTS.—

14 “(A) PROHIBITION GENERALLY.—During
15 the course of an appeal under this subsection,
16 no covered official may engage in an ex parte
17 communication (as defined in section 551 of
18 title 5) with an individual representing or act-
19 ing on behalf of an applicant for, or holder of,
20 a certificate under this section in relation to
21 such appeal unless such communication is dis-
22 closed pursuant to subparagraph (B).

23 “(B) DISCLOSURE.—If, during the course
24 of an appeal under this subsection, a covered
25 official engages in, receives, or is otherwise

1 made aware of an ex parte communication, the
2 covered official shall disclose such communica-
3 tion in the public record at the time of the
4 issuance of the written decision under para-
5 graph (1)(C), including the time and date of
6 the communication, subject of communication,
7 and all persons engaged in such communication.

8 “(3) DEFINITIONS.—In this subsection:

9 “(A) COVERED PERSON.—The term ‘cov-
10 ered person’ means either—

11 “(i) an employee of the Administra-
12 tion whose responsibilities relate to the cer-
13 tification of aircraft, engines, propellers, or
14 appliances; or

15 “(ii) an applicant for, or holder of, a
16 type certificate or amended type certificate
17 issued under this section.

18 “(B) COVERED OFFICIAL.—The term ‘cov-
19 ered official’ means the following officials:

20 “(i) The Executive Director or any
21 Deputy Director of the Aircraft Certifi-
22 cation Service.

23 “(ii) The Deputy Executive Director
24 for Regulatory Operations of the Aircraft
25 Certification Service.

1 “(iii) The Director or Deputy Director
2 of the Compliance and Airworthiness Divi-
3 sion of the Aircraft Certification Service.

4 “(iv) The Director or Deputy Director
5 of the System Oversight Division of the
6 Aircraft Certification Service.

7 “(v) The Director or Deputy Director
8 of the Policy and Innovation Division of
9 the Aircraft Certification Service.

10 “(vi) The Executive Director or any
11 Deputy Executive Director of the Flight
12 Standards Service.

13 “(vii) The Associate Administrator or
14 Deputy Associate Administrator for Avia-
15 tion Safety.

16 “(viii) The Deputy Administrator of
17 the Federal Aviation Administration.

18 “(ix) The Administrator of the Fed-
19 eral Aviation Administration.

20 “(x) Any similarly situated or suc-
21 cessor FAA management position to those
22 described in clauses (i) through (ix), as de-
23 termined by the Administrator.

24 “(C) MAJOR CERTIFICATION PROCESS
25 MILESTONE.—The term ‘major certification

1 process milestone’ means a milestone related to
2 the type certification basis, type certification
3 plan, type inspection authorization, issue paper,
4 or other major type certification activity agreed
5 to by the Administrator and the type certificate
6 applicant.

7 “(4) RULE OF CONSTRUCTION.—Nothing in
8 this subsection shall apply to the communication of
9 a good-faith complaint by any individual alleging—

10 “(A) gross misconduct;

11 “(B) a violation of title 18; or

12 “(C) a violation of any of the provisions of
13 part 2635 or 6001 of title 5, Code of Federal
14 Regulations.”.

15 (b) CONFORMING AMENDMENT.—Section 44704(a)
16 of title 49, United States Code, is amended by striking
17 paragraph (6).

18 **SEC. 111. EMPLOYMENT RESTRICTIONS.**

19 (a) DISQUALIFICATION BASED ON PRIOR EMPLOY-
20 MENT.—An employee of the Administration with super-
21 visory responsibility may not direct, conduct, or otherwise
22 participate in oversight of a holder of a certificate issued
23 under section 44704 of title 49, United States Code, that
24 previously employed such employee in the preceding 1-year
25 period.

1 (b) POST-EMPLOYMENT RESTRICTIONS.—Section
2 44711(d) of title 49, United States Code, is amended to
3 read as follows:

4 “(d) POST-EMPLOYMENT RESTRICTIONS FOR IN-
5 SPECTORS AND ENGINEERS.—

6 “(1) PROHIBITION.—A person holding a certifi-
7 cate issued under part 21 or 119 of title 14, Code
8 of Federal Regulations, may not knowingly employ,
9 or make a contractual arrangement that permits, an
10 individual to act as an agent or representative of
11 such person in any matter before the Administration
12 if the individual, in the preceding 2-year period—

13 “(A) served as, or was responsible for over-
14 sight of—

15 “(i) a flight standards inspector of the
16 Administration; or

17 “(ii) an employee of the Administra-
18 tion with responsibility for certification
19 functions with respect to a holder of a cer-
20 tificate issued under section 44704(a); and

21 “(B) had responsibility to inspect, or over-
22 see inspection of, the operations of such person.

23 “(2) WRITTEN AND ORAL COMMUNICATIONS.—

24 For purposes of paragraph (1), an individual shall
25 be considered to be acting as an agent or representa-

1 tive of a certificate holder in a matter before the Ad-
2 ministration if the individual makes any written or
3 oral communication on behalf of the certificate hold-
4 er to the Administration (or any of its officers or
5 employees) in connection with a particular matter,
6 whether or not involving a specific party and without
7 regard to whether the individual has participated in,
8 or had responsibility for, the particular matter while
9 serving as an individual covered under paragraph
10 (1).”.

11 **SEC. 112. PROFESSIONAL DEVELOPMENT, SKILLS EN-**
12 **HANCEMENT, CONTINUING EDUCATION AND**
13 **TRAINING.**

14 (a) IN GENERAL.—Chapter 445 of title 49, United
15 States Code, is amended by adding at the end the fol-
16 lowing:

17 **“§ 44519. Certification personnel continuing edu-**
18 **cation and training**

19 “(a) IN GENERAL.—The Administrator of the Fed-
20 eral Aviation Administration shall—

21 “(1) develop a program for regular recurrent
22 training of engineers, inspectors, and other subject-
23 matter experts employed in the Aircraft Certification
24 Service of the Administration in accordance with the
25 training strategy developed pursuant to section 231

1 of the FAA Reauthorization Act of 2018 (Public
2 Law 115–254; 132 Stat. 3256);

3 “(2) to the maximum extent practicable, imple-
4 ment measures, including assignments in multiple
5 divisions of the Aircraft Certification Service, to en-
6 sure that such engineers and other subject-matter
7 experts in the Aircraft Certification Service have ac-
8 cess to diverse professional opportunities that ex-
9 pand their knowledge and skills;

10 “(3) develop a program to provide continuing
11 education and training to Administration personnel
12 who hold positions involving aircraft certification
13 and flight standards, including human factors spe-
14 cialists, engineers, flight test pilots, inspectors, and,
15 as determined appropriate by the Administrator, in-
16 dustry personnel who may be responsible for compli-
17 ance activities including designees; and

18 “(4) in consultation with outside experts, de-
19 velop—

20 “(A) an education and training curriculum
21 on current and new aircraft technologies,
22 human factors, project management, and the
23 roles and responsibilities associated with over-
24 sight of designees; and

1 “(B) recommended practices for compli-
2 ance with Administration regulations.

3 “(b) IMPLEMENTATION.—The Administrator shall, to
4 the maximum extent practicable, ensure that actions taken
5 pursuant to subsection (a)—

6 “(1) permit engineers, inspectors, and other
7 subject matter experts to continue developing knowl-
8 edge of, and expertise in, new and emerging tech-
9 nologies in systems design, flight controls, principles
10 of aviation safety, system oversight, and certification
11 project management;

12 “(2) minimize the likelihood of an individual de-
13 veloping an inappropriate bias toward a designer or
14 manufacturer of aircraft, aircraft engines, propellers,
15 or appliances;

16 “(3) are consistent with any applicable collec-
17 tive bargaining agreements; and

18 “(4) account for gaps in knowledge and skills
19 (as identified by the Administrator in consultation
20 with the exclusive bargaining representatives cer-
21 tified under section 7111 of title 5, United States
22 Code) between Administration employees and pri-
23 vate-sector employees for each group of Administra-
24 tion employees covered under this section.

1 “(c) AUTHORIZATION OF APPROPRIATIONS.—There
2 is authorized to be appropriated to the Administrator,
3 \$10,000,000 for each of fiscal years 2021 through 2023
4 to carry out this section. Amounts appropriated under the
5 preceding sentence for any fiscal year shall remain avail-
6 able until expended.”.

7 (b) TABLE OF CONTENTS.—The analysis for chapter
8 445 of title 49, United States Code, is amended by insert-
9 ing after the item relating to section 44518 the following:
“44519. Certification personnel continuing education and training.”.

10 **SEC. 113. VOLUNTARY SAFETY REPORTING PROGRAM.**

11 (a) IN GENERAL.—Not later than 1 year after the
12 date of enactment of this title, the Administrator shall es-
13 tablish a voluntary safety reporting program for engineers,
14 safety inspectors, systems safety specialists, and other
15 subject matter experts certified under section 7111 of title
16 5, United States Code, to confidentially report instances
17 where they have identified safety concerns during certifi-
18 cation or oversight processes.

19 (b) SAFETY REPORTING PROGRAM REQUIRE-
20 MENTS.—In establishing the safety reporting program
21 under subsection (a), the Administrator shall ensure the
22 following:

23 (1) The FAA maintains a reporting culture that
24 encourages human factors specialists, engineers,

1 flight test pilots, inspectors, and other appropriate
2 FAA employees to voluntarily report safety concerns.

3 (2) The safety reporting program is non-puni-
4 tive, confidential, and protects employees from ad-
5 verse employment actions related to their participa-
6 tion in the program.

7 (3) The safety reporting program identifies ex-
8 clusionary criteria for the program.

9 (4) Collaborative development of the program
10 with bargaining representatives of employees under
11 section 7111 of title 5, United States Code, who are
12 employed in the Aircraft Certification Service or
13 Flight Standards Service of the Administration (or,
14 if unable to reach an agreement collaboratively, the
15 Administrator shall negotiate with the representa-
16 tives in accordance with section 40122(a) of title 49,
17 United States Code, regarding the development of
18 the program).

19 (5) Full and collaborative participation in the
20 program by the bargaining representatives of em-
21 ployees described in paragraph (4).

22 (6) The Administrator thoroughly reviews safe-
23 ty reports to determine whether there is a safety
24 issue, including a hazard, defect, noncompliance,
25 nonconformance, or process error.

1 (7) The Administrator thoroughly reviews safe-
2 ty reports to determine whether any aircraft certifi-
3 cation process contributed to the safety concern
4 being raised.

5 (8) The creation of a corrective action process
6 in order to address safety issues that are identified
7 through the program.

8 (c) OUTCOMES.—Results of safety report reviews
9 under this section may be used to—

10 (1) improve—

11 (A) safety systems, hazard control, and
12 risk reduction;

13 (B) certification systems;

14 (C) FAA oversight;

15 (D) compliance and conformance; and

16 (E) any other matter determined necessary
17 by the Administrator; and

18 (2) implement lessons learned.

19 (d) REPORT FILING.—The Administrator shall estab-
20 lish requirements for when in the certification process re-
21 ports may be filed to—

22 (1) ensure that identified issues can be ad-
23 dressed in a timely manner; and

24 (2) foster open dialogue between applicants and
25 FAA employees throughout the certification process.

1 (e) INTEGRATION WITH OTHER SAFETY REPORTING
2 PROGRAMS.—The Administrator shall implement the safe-
3 ty reporting program established under subsection (a) and
4 the reporting requirements established pursuant to sub-
5 section (d) in a manner that is consistent with other vol-
6 untary safety reporting programs administered by the Ad-
7 ministrator.

8 (f) REPORT TO CONGRESS.—Not later than 2 years
9 after the date of enactment of this title, and annually
10 thereafter through fiscal year 2023, the Administrator
11 shall submit to the congressional committees of jurisdic-
12 tion a report on the effectiveness of the safety reporting
13 program established under subsection (a).

14 **SEC. 114. COMPENSATION LIMITATION.**

15 Section 106(l) of title 49, United States Code, is
16 amended by adding at the end the following:

17 “(7) PROHIBITION ON CERTAIN PERFORMANCE-
18 BASED INCENTIVES.—No employee of the Adminis-
19 tration shall be given an award, financial incentive,
20 or other compensation, as a result of actions to meet
21 performance goals related to meeting or exceeding
22 schedules, quotas, or deadlines for certificates issued
23 under section 44704.”.

1 **SEC. 115. SYSTEM SAFETY ASSESSMENTS AND OTHER RE-**
2 **QUIREMENTS.**

3 (a) IN GENERAL.—Not later than 2 years after the
4 date of enactment of this title, the Administrator shall
5 issue such regulations as are necessary to amend part 25
6 of title 14, Code of Federal Regulations, and any associ-
7 ated advisory circular, guidance, or policy of the Adminis-
8 tration, in accordance with this section.

9 (b) SYSTEM SAFETY ASSESSMENTS AND OTHER RE-
10 QUIREMENTS.—In developing regulations under sub-
11 section (a), the Administrator shall—

12 (1) require an applicant for an amended type
13 certificate for a transport airplane to—

14 (A) perform a system safety assessment
15 with respect to each proposed design change
16 that the Administrator determines is signifi-
17 cant, with such assessment considering the air-
18 plane-level effects of individual errors, malfunc-
19 tions, or failures and realistic pilot response
20 times to such errors, malfunctions, or failures;

21 (B) update such assessment to account for
22 each subsequent proposed design change that
23 the Administrator determines is significant;

24 (C) provide appropriate employees of the
25 Administration with the data and assumptions

1 underlying each assessment and amended as-
2 essment; and

3 (D) provide for document traceability and
4 clarity of explanations for changes to aircraft
5 type designs and system safety assessment cer-
6 tification documents; and

7 (2) work with other civil aviation authorities
8 representing states of design to ensure such regula-
9 tions remain harmonized internationally.

10 (c) GUIDANCE.—Guidance or an advisory circular
11 issued under subsection (a) shall, at minimum—

12 (1) emphasize the importance of clear docu-
13 mentation of the technical details and failure modes
14 and effects of a design change described in sub-
15 section (b)(1); and

16 (2) ensure appropriate review of any change
17 that results in a functional hazard assessment classi-
18 fication of major or greater, as such term is defined
19 in FAA Advisory Circular 25.1309-1A (or any suc-
20 cessor or replacement document).

21 (d) FAA REVIEW.—Appropriate employees of the
22 Aircraft Certification Service and the Flight Standards
23 Service of the Administration shall review each system
24 safety assessment required under subsection (b)(1)(A),
25 updated assessment required under subsection (b)(1)(B),

1 and supporting data and assumptions required under sub-
2 section (b)(1)(C), to ensure that each such assessment
3 sufficiently addresses the considerations listed in sub-
4 section (b)(1)(A).

5 **SEC. 116. FLIGHT CREW ALERTING.**

6 (a) IN GENERAL.—Not later than 1 year after the
7 date of enactment of this title, the Administrator shall im-
8 plement National Transportation Safety Board rec-
9 ommendations A–19–11 and A–19–12 (as contained in
10 the safety recommendation report adopted on September
11 9, 2019).

12 (b) PROHIBITION.—Beginning on the date that is 2
13 years after the date of enactment of this title, the Admin-
14 istrator may not issue a type certificate for a transport
15 category aircraft unless—

16 (1) in the case of a transport airplane, such air-
17 plane incorporates a flight crew alerting system that,
18 at a minimum, displays and differentiates among
19 warnings, cautions, and advisories, and includes
20 functions to assist the flight crew in prioritizing cor-
21 rective actions and responding to systems failures; or

22 (2) in the case of a transport category aircraft
23 other than a transport airplane, the type certificate
24 applicant provides a means acceptable to the Admin-
25 istrator to assist the flight crew in prioritizing cor-

1 rective actions and responding to systems failures
2 (including by cockpit or flight manual procedures).

3 (c) EXISTING AIRPLANE DESIGNS.—It is the sense
4 of Congress that the FAA shall ensure that any system
5 safety assessment with respect to the Boeing 737-7, 737-
6 8, 737-9, and 737-10 airplanes, as described in National
7 Transportation Safety Board recommendation A-19-10, is
8 conducted in accordance with such recommendation.

9 **SEC. 117. CHANGED PRODUCT RULE.**

10 (a) REVIEW AND REEVALUATION OF AMENDED TYPE
11 CERTIFICATES.—

12 (1) INTERNATIONAL LEADERSHIP.—The Ad-
13 ministrator shall exercise leadership in the creation
14 of international policies and standards relating to
15 the issuance of amended type certificates within the
16 Certification Management Team.

17 (2) REEVALUATION OF AMENDED TYPE CER-
18 TIFICATES.—In carrying out this subsection, the Ad-
19 ministrator shall—

20 (A) encourage Certification Management
21 Team members to examine and address any rel-
22 evant covered recommendations (as defined in
23 section 121(c)) relating to the issuance of
24 amended type certificates;

1 (B) reevaluate existing assumptions and
2 practices inherent in the amended type certifi-
3 cate process and assess whether such assump-
4 tions and practices are valid; and

5 (C) ensure, to the greatest extent prac-
6 ticable, that Federal regulations relating to the
7 issuance of amended type certificates are har-
8 monized with the regulations of other inter-
9 national states of design.

10 (b) AMENDED TYPE CERTIFICATE REPORT AND
11 RULEMAKING.—

12 (1) BRIEFINGS.—Not later than 12 months
13 after the date of enactment of this title, and annu-
14 ally thereafter through fiscal year 2023, the Admin-
15 istrator shall brief the congressional committees of
16 jurisdiction on the work and status of the develop-
17 ment of such recommendations by the Certification
18 Management Team.

19 (2) INITIATION OF ACTION.—Not later than 2
20 years after the date of enactment of this title, the
21 Administrator shall take action to revise and im-
22 prove the process of issuing amended type certifi-
23 cates in accordance with this section. Such action
24 shall include, at minimum—

1 (A) initiation of a rulemaking proceeding;
2 and

3 (B) development or revision of guidance
4 and training materials.

5 (3) CONTENTS.—In taking actions required
6 under paragraph (2), the Administrator shall do the
7 following:

8 (A) Ensure that proposed changes to an
9 aircraft are evaluated from an integrated whole
10 aircraft system perspective that examines the
11 integration of proposed changes with existing
12 systems and associated impacts.

13 (B) Define key terms used for the changed
14 product process under sections 21.19 and
15 21.101 of title 14, Code of Federal Regulations.

16 (C) Consider—

17 (i) the findings and work of the Cer-
18 tification Management Team and other
19 similar international harmonization efforts;

20 (ii) any relevant covered recommenda-
21 tions (as defined in section 121(c)); and

22 (iii) whether a fixed time beyond
23 which a type certificate may not be amend-
24 ed would improve aviation safety.

1 (D) Establish the extent to which the fol-
2 lowing design characteristics should preclude
3 the issuance of an amended type certificate:

4 (i) A new or revised flight control sys-
5 tem.

6 (ii) Any substantial changes to aero-
7 dynamic stability resulting from a physical
8 change that may require a new or modified
9 software system or control law in order to
10 produce positive and acceptable stability
11 and handling qualities.

12 (iii) A flight control system or aug-
13 mented software to maintain aerodynamic
14 stability in any portion of the flight enve-
15 lope that was not required for a previously
16 certified derivative.

17 (iv) A change in structural compo-
18 nents (other than a stretch or shrink of
19 the fuselage) that results in a change in
20 structural load paths or the magnitude of
21 structural loads attributed to flight maneu-
22 vers or cabin pressurization.

23 (v) A novel or unusual system, compo-
24 nent, or other feature whose failure would
25 present a hazardous or catastrophic risk.

1 (E) Develop objective criteria for helping
2 to determine what constitutes a substantial
3 change and a significant change.

4 (F) Implement mandatory aircraft-level re-
5 views throughout the certification process to
6 validate the certification basis and assumptions.

7 (G) Require maintenance of relevant
8 records of agreements between the FAA and an
9 applicant that affect certification documentation
10 and deliverables.

11 (H) Ensure appropriate documentation of
12 any exception or exemption from airworthiness
13 requirements codified in title 14 of the Code of
14 Federal Regulations, as in effect on the date of
15 application for the change.

16 (4) GUIDANCE MATERIALS.—The Administrator
17 shall consider the following when developing orders
18 and regulatory guidance, including advisory circu-
19 lars, where appropriate:

20 (A) Early FAA involvement and feedback
21 paths in the aircraft certification process to en-
22 sure the FAA is aware of changes to design as-
23 sumptions and product design impacting a
24 changed product assessment.

1 (B) Presentation to the FAA of new tech-
2 nology, novel design, or safety critical features
3 or systems, initially and throughout the certifi-
4 cation process, when development and certifi-
5 cation prompt design or compliance method re-
6 vision.

7 (C) Examples of key terms used for the
8 changed product process under sections 21.19
9 and 21.101 of title 14, Code of Federal Regula-
10 tions.

11 (D) Type certificate data sheet improve-
12 ments to accurately state which regulations and
13 amendment level the aircraft complies to and
14 when compliance is limited to a subset of the
15 aircraft.

16 (E) Policies to guide applicants on proper
17 visibility, clarity, and consistency of key design
18 and compliance information that is submitted
19 for certification, particularly with new design
20 features.

21 (F) The creation, validation, and imple-
22 mentation of analytical tools appropriate for the
23 analysis of complex system for the FAA and ap-
24 plicants.

1 (G) Early coordination processes with the
2 FAA for the functional hazard assessments vali-
3 dation and preliminary system safety assess-
4 ments review.

5 (5) TRAINING MATERIALS.—The Administrator
6 shall—

7 (A) develop training materials for estab-
8 lishing the certification basis for changed aero-
9 nautical products pursuant to section 21.101 of
10 title 14, Code of Federal Regulations, applica-
11 tions for a new type certificate pursuant to sec-
12 tion 21.19 of such title, and the regulatory
13 guidance developed as a result of the rule-
14 making conducted pursuant to paragraph (2);
15 and

16 (B) procedures for disseminating such ma-
17 terials to implementing personnel of the FAA,
18 designees, and applicants.

19 (6) CERTIFICATION MANAGEMENT TEAM DE-
20 FINED.—In this section, the term “Certification
21 Management Team” means the team framework
22 under which the FAA, the European Aviation Safety
23 Agency, the Transport Canada Civil Aviation, and
24 the National Civil Aviation Agency of Brazil, man-
25 age the technical, policy, certification, manufac-

1 turing, export, and continued airworthiness issues
2 common among the 4 authorities.

3 (7) DEADLINE.—The Administrator shall final-
4 ize the actions initiated under paragraph (2) not
5 later than 3 years after the date of enactment of
6 this title.

7 (c) INTERNATIONAL LEADERSHIP.—The Adminis-
8 trator shall exercise leadership within the ICAO and
9 among other civil aviation regulators representing states
10 of aircraft design to advocate for the adoption of an
11 amended changed product rule on a global basis, con-
12 sistent with ICAO standards.

13 **SEC. 118. WHISTLEBLOWER PROTECTIONS.**

14 Section 42121 of title 49, United States Code, is
15 amended—

16 (1) by striking subsection (a) and inserting the
17 following:

18 “(a) PROHIBITED DISCRIMINATION.—A holder of a
19 certificate under section 44704 or 44705 of this title, or
20 a contractor, subcontractor, or supplier of such holder,
21 may not discharge an employee or otherwise discriminate
22 against an employee with respect to compensation, terms,
23 conditions, or privileges of employment because the em-
24 ployee (or any person acting pursuant to a request of the
25 employee)—

1 “(1) provided, caused to be provided, or is
2 about to provide (with any knowledge of the em-
3 ployer) or cause to be provided to the employer or
4 Federal Government information relating to any vio-
5 lation or alleged violation of any order, regulation,
6 or standard of the Federal Aviation Administration
7 or any other provision of Federal law relating to
8 aviation safety under this subtitle or any other law
9 of the United States;

10 “(2) has filed, caused to be filed, or is about to
11 file (with any knowledge of the employer) or cause
12 to be filed a proceeding relating to any violation or
13 alleged violation of any order, regulation, or stand-
14 ard of the Federal Aviation Administration or any
15 other provision of Federal law relating to aviation
16 safety under this subtitle or any other law of the
17 United States;

18 “(3) testified or is about to testify in such a
19 proceeding; or

20 “(4) assisted or participated or is about to as-
21 sist or participate in such a proceeding.”;

22 (2) by striking subsection (d) and inserting the
23 following:

24 “(d) NONAPPLICABILITY TO DELIBERATE VIOLA-
25 TIONS.—Subsection (a) shall not apply with respect to an

1 employee of a holder of a certificate issued under section
2 44704 or 44705, or a contractor or subcontractor thereof,
3 who, acting without direction from such certificate-holder,
4 contractor, or subcontractor (or such person's agent), de-
5 liberately causes a violation of any requirement relating
6 to aviation safety under this subtitle or any other law of
7 the United States.”; and

8 (3) by striking subsection (e) and inserting the
9 following:

10 “(e) CONTRACTOR DEFINED.—In this section, the
11 term ‘contractor’ means—

12 “(1) a person that performs safety-sensitive
13 functions by contract for an air carrier or commer-
14 cial operator; or

15 “(2) a person that performs safety-sensitive
16 functions related to the design or production of an
17 aircraft, aircraft engine, propeller, appliance, or
18 component thereof by contract for a holder of a cer-
19 tificate issued under section 44704.”.

20 **SEC. 119. DOMESTIC AND INTERNATIONAL PILOT TRAIN-**
21 **ING.**

22 (a) IN GENERAL.—Chapter 447 of title 49, United
23 States Code, as amended by section 107, is further amend-
24 ed by adding at the end the following:

1 **“§ 44743. Pilot training requirements**

2 “(a) IN GENERAL.—

3 “(1) ADMINISTRATOR’S DETERMINATION.—In
4 establishing any pilot training requirements with re-
5 spect to a new transport airplane, the Administrator
6 of the Federal Aviation Administration shall inde-
7 pendently review any proposal by the manufacturer
8 of such airplane with respect to the scope, format,
9 or minimum level of training required for operation
10 of such airplane.

11 “(2) ASSURANCES AND MARKETING REPRESENTEN-
12 TATIONS.—Before the Administrator has established
13 applicable training requirements, an applicant for a
14 new or amended type certificate for an airplane de-
15 scribed in paragraph (1) may not, with respect to
16 the scope, format, or magnitude of pilot training for
17 such airplane—

18 “(A) make any assurance or other contrac-
19 tual commitment, whether verbal or in writing,
20 to a potential purchaser of such airplane unless
21 a clear and conspicuous disclaimer (as defined
22 by the Administrator) is included regarding the
23 status of training required for operation of such
24 airplane; or

25 “(B) provide financial incentives (including
26 rebates) to a potential purchaser of such air-

1 plane regarding the scope, format, or mag-
2 nitude of pilot training for such airplane.

3 “(b) PILOT RESPONSE TIME.—Beginning on the day
4 after the date on which regulations are issued under sec-
5 tion 119(e)(6) of the Aircraft Certification, Safety, and
6 Accountability Act, the Administrator may not issue a new
7 or amended type certificate for an airplane described in
8 subsection (a) unless the applicant for such certificate has
9 demonstrated to the Administrator that the applicant has
10 accounted for realistic assumptions regarding the time for
11 pilot responses to non-normal conditions in designing the
12 systems and instrumentation of such airplane. Such as-
13 sumptions shall—

14 “(1) be based on test data, analysis, or other
15 technical validation methods; and

16 “(2) account for generally accepted scientific
17 consensus among experts in human factors regard-
18 ing realistic pilot response time.

19 “(c) DEFINITION.—In this section, the term ‘trans-
20 port airplane’ means a transport category airplane de-
21 signed for operation by an air carrier or foreign air carrier
22 type-certificated with a passenger seating capacity of 30
23 or more or an all-cargo or combi derivative of such an
24 airplane.”.

1 (b) CONFORMING AMENDMENT.—The analysis for
2 chapter 447 of title 49, United States Code, is further
3 amended by adding at the end the following:

“44743. Pilot training requirements.”.

4 (c) EXPERT SAFETY REVIEW.—

5 (1) IN GENERAL.—Not later than 30 days after
6 the date of enactment of this title, the Administrator
7 shall initiate an expert safety review of assumptions
8 relied upon by the Administration and manufactur-
9 ers of transport category aircraft in the design and
10 certification of such aircraft.

11 (2) CONTENTS.—The expert safety review re-
12 quired under paragraph (1) shall include—

13 (A) a review of Administration regulations,
14 guidance, and directives related to pilot re-
15 sponse assumptions relied upon by the FAA
16 and manufacturers of transport category air-
17 craft in the design and certification of such air-
18 craft, and human factors and human system in-
19 tegration, particularly those related to pilot and
20 aircraft interfaces;

21 (B) a focused review of the assumptions
22 relied on regarding the time for pilot responses
23 to non-normal conditions in designing such air-
24 craft’s systems and instrumentation, including
25 responses to safety-significant failure conditions

1 and failure scenarios that trigger multiple, and
2 possibly conflicting, warnings and alerts;

3 (C) a review of human factors assumptions
4 with applicable operational data, human factors
5 research and the input of human factors ex-
6 perts and FAA operational data, and as appro-
7 priate, recommendations for modifications to
8 existing assumptions;

9 (D) a review of revisions made to the air-
10 man certification standards for certificates over
11 the last 4 years, including any possible effects
12 on pilot competency in basic manual flying
13 skills;

14 (E) consideration of the global nature of
15 the aviation marketplace, varying levels of pilot
16 competency, and differences in pilot training
17 programs worldwide;

18 (F) a process for aviation stakeholders, in-
19 cluding pilots, airlines, inspectors, engineers,
20 test pilots, human factors experts, and other
21 aviation safety experts, to provide and discuss
22 any observations, feedback, and best practices;

23 (G) a review of processes currently in place
24 to ensure that when carrying out the certifi-
25 cation of a new aircraft type, or an amended

1 type, the cumulative effects that new tech-
2 nologies, and the interaction between new tech-
3 nologies and unchanged systems for an amend-
4 ed type certificate, may have on pilot inter-
5 actions with aircraft systems are properly as-
6 sessed through system safety assessments or
7 otherwise; and

8 (H) a review of processes currently in
9 place to account for any necessary adjustments
10 to system safety assessments, pilot procedures
11 and training requirements, or design require-
12 ments when there are changes to the assump-
13 tions relied upon by the Administration and
14 manufacturers of transport category aircraft in
15 the design and certification of such aircraft.

16 (3) REPORT AND RECOMMENDATIONS.—Not
17 later than 30 days after the conclusion of the expert
18 safety review pursuant to paragraph (1), the Admin-
19 istrator shall submit to the congressional committees
20 of jurisdiction a report on the results of the review,
21 including any recommendations for actions or best
22 practices to ensure the FAA and the manufacturers
23 of transport category aircraft have accounted for
24 pilot response assumptions to be relied upon in the
25 design and certification of transport category air-

1 craft and tools or methods identified to better inte-
2 grate human factors throughout the process for such
3 certification.

4 (4) INTERNATIONAL ENGAGEMENT.—The Ad-
5 ministrator shall notify other international regu-
6 lators that certify transport category aircraft type
7 designs of the expert panel report and encourage
8 them to review the report and evaluate their regula-
9 tions and processes in light of the recommendations
10 included in the report.

11 (5) TERMINATION.—The expert safety review
12 shall end upon submission of the report required
13 pursuant to paragraph (3).

14 (6) REGULATIONS.—The Administrator shall
15 issue or update such regulations as are necessary to
16 implement the recommendations of the expert safety
17 review that the Administrator determines are nec-
18 essary to improve aviation safety.

19 (d) CALL TO ACTION ON AIRMAN CERTIFICATION
20 STANDARDS.—

21 (1) IN GENERAL.—Not later than 60 days after
22 the date of enactment of this title, the Administrator
23 shall initiate a call to action safety review of pilot
24 certification standards in order to bring stakeholders
25 together to share lessons learned, best practices, and

1 implement actions to address any safety issues iden-
2 tified.

3 (2) CONTENTS.—The call to action safety re-
4 view required under paragraph (1) shall include—

5 (A) a review of Administration regulations,
6 guidance, and directives related to the pilot cer-
7 tification standards, including the oversight of
8 those processes;

9 (B) a review of revisions made to the pilot
10 certification standards for certificates over the
11 last 5 years, including any possible effects on
12 pilot competency in manual flying skills and ef-
13 fectively managing automation to improve safe-
14 ty; and

15 (C) a process for aviation stakeholders, in-
16 cluding aviation students, instructors, des-
17 ignated pilot examiners, pilots, airlines, labor,
18 and aviation safety experts, to provide and dis-
19 cuss any observations, feedback, and best prac-
20 tices.

21 (3) REPORT AND RECOMMENDATIONS.—Not
22 later than 90 days after the conclusion of the call to
23 action safety review pursuant to paragraph (1), the
24 Administrator shall submit to the congressional com-
25 mittees of jurisdiction a report on the results of the

1 review, any recommendations for actions or best
2 practices to ensure pilot competency in basic manual
3 flying skills and in effective management of automa-
4 tion, and actions the Administrator will take in re-
5 sponse to the recommendations.

6 (e) INTERNATIONAL PILOT TRAINING.—

7 (1) IN GENERAL.—The Secretary of Transpor-
8 tation, the Administrator, and other appropriate of-
9 ficials of the Government shall exercise leadership in
10 setting global standards to improve air carrier pilot
11 training and qualifications for—

12 (A) monitoring and managing the behavior
13 and performance of automated systems;

14 (B) controlling the flightpath of aircraft
15 without autoflight systems engaged;

16 (C) effectively utilizing and managing
17 autoflight systems, when appropriate;

18 (D) effectively identifying situations in
19 which the use of autoflight systems is appro-
20 priate and when such use is not appropriate;
21 and

22 (E) recognizing and responding appro-
23 priately to non-normal conditions.

24 (2) INTERNATIONAL LEADERSHIP.—The Sec-
25 retary, the Administrator, and other appropriate of-

1 officials of the Government shall exercise leadership
2 under paragraph (1) by working with—

3 (A) foreign counterparts of the Adminis-
4 trator in the ICAO and its subsidiary organiza-
5 tions;

6 (B) other international organizations and
7 fora; and

8 (C) the private sector.

9 (3) CONSIDERATIONS.—In exercising leadership
10 under paragraph (1), the Secretary, the Adminis-
11 trator, and other appropriate officials of the Govern-
12 ment shall consider—

13 (A) the latest information relating to
14 human factors;

15 (B) aircraft manufacturing trends, includ-
16 ing those relating to increased automation in
17 the cockpit;

18 (C) the extent to which cockpit automation
19 improves aviation safety and introduces novel
20 risks;

21 (D) the availability of opportunities for pi-
22 lots to practice manual flying skills;

23 (E) the need for consistency in maintain-
24 ing and enhancing manual flying skills world-
25 wide;

1 (F) recommended practices of other coun-
2 tries that enhance manual flying skills and au-
3 tomation management; and

4 (G) whether a need exists for initial and
5 recurrent training standards for improve pilots'
6 proficiency in manual flight and in effective
7 management of autoflight systems.

8 (4) CONGRESSIONAL BRIEFING.—The Sec-
9 retary, the Administrator, and other appropriate of-
10 ficials of the Government shall provide to the con-
11 gressional committees of jurisdiction regular brief-
12 ings on the status of efforts undertaken pursuant to
13 this subsection.

14 (f) INTERNATIONAL AVIATION SAFETY.—Section
15 40104(b) of title 49, United States Code, is amended—

16 (1) by striking “The Administrator shall” and
17 inserting the following:

18 “(1) IN GENERAL.—The Administrator shall”;

19 and

20 (2) by adding at the end the following:

21 “(2) BILATERAL AND MULTILATERAL ENGAGE-
22 MENT; TECHNICAL ASSISTANCE.—The Administrator
23 shall—

24 “(A) in consultation with the Secretary of
25 State, engage bilaterally and multilaterally, in-

1 including with the International Civil Aviation
2 Organization, on an ongoing basis to bolster
3 international collaboration, data sharing, and
4 harmonization of international aviation safety
5 requirements including through—

6 “(i) sharing of continued operational
7 safety information;

8 “(ii) prioritization of pilot training de-
9 ficiencies, including manual flying skills
10 and flight crew training, to discourage over
11 reliance on automation, further bolstering
12 the components of airmanship;

13 “(iii) encouraging the consideration of
14 the safety advantages of appropriate Fed-
15 eral regulations, which may include rel-
16 evant Federal regulations pertaining to
17 flight crew training requirements; and

18 “(iv) prioritizing any other flight crew
19 training areas that the Administrator be-
20 lieves will enhance all international avia-
21 tion safety; and

22 “(B) seek to expand technical assistance
23 provided by the Federal Aviation Administra-
24 tion in support of enhancing international avia-
25 tion safety, including by—

1 “(i) promoting and enhancing effective oversight systems, including operational safety enhancements identified through data collection and analysis;

2
3
4
5 “(ii) promoting and encouraging compliance with international safety standards by counterpart civil aviation authorities;

6
7
8 “(iii) minimizing cybersecurity threats and vulnerabilities across the aviation ecosystem;

9
10
11 “(iv) supporting the sharing of safety information, best practices, risk assessments, and mitigations through established international aviation safety groups; and

12
13
14
15 “(v) providing technical assistance on any other aspect of aviation safety that the Administrator determines is likely to enhance international aviation safety.”.

16
17
18
19 (3) AUTHORIZATION OF APPROPRIATIONS.—
20 There is authorized to be appropriated to the Administrator, \$2,000,000 for each of fiscal years 2021
21 through 2023, to carry out section 40104(b)(2) of
22 title 49, United States Code (as added by paragraph
23 (2)).
24

1 (g) ASSISTANCE TO FOREIGN AVIATION AUTHORI-
2 TIES.—

3 (1) IN GENERAL.—Section 40113(e)(1) of title
4 49, United States Code, is amended by inserting
5 “The Administrator may also provide technical as-
6 sistance related to all aviation safety-related training
7 and operational services in connection with bilateral
8 and multilateral agreements, including further bol-
9 stering the components of airmanship.” after the
10 first sentence.

11 (2) AUTHORIZATION OF APPROPRIATIONS.—
12 Section 40113(e) of title 49, United States Code, is
13 amended by adding at the end the following:

14 “(5) AUTHORIZATION OF APPROPRIATIONS.—
15 There is authorized to be appropriated to the Ad-
16 ministrator, \$5,000,000 for each of fiscal years 2021
17 through 2023, to carry out this subsection. Amounts
18 appropriated under the preceding sentence for any
19 fiscal year shall remain available until expended.”.

20 (h) SENSE OF CONGRESS REGARDING INTER-
21 NATIONAL PILOT TRAINING STANDARDS.—

22 (1) FINDINGS.—Congress makes the following
23 findings:

24 (A) Increased reliance on automation in
25 commercial aviation risks a degradation of pilot

1 skills in flight path management using manual
2 flight control.

3 (B) Manual flight skills are essential for
4 pilot confidence and competence.

5 (C) During the 40th Assembly of ICAO,
6 the United States, Canada, Peru, and Trinidad
7 and Tobago presented a working paper titled,
8 “Pilot Training Improvements to Address Auto-
9 mation Dependency”.

10 (D) The working paper outlines rec-
11 ommendations for the Assembly to mitigate the
12 consequences of automation dependency, includ-
13 ing identifying competency requirements for
14 flight path management using manual flight
15 control and assessing the need for new or
16 amended international standards or guidance.

17 (2) SENSE OF CONGRESS.—It is the sense of
18 Congress that, as soon as practicable—

19 (A) the recommendations included in the
20 working paper titled “Pilot Training Improve-
21 ments to Address Automation Dependency” of-
22 fered by the United States at the 40th Assem-
23 bly of ICAO should be made a priority by the
24 Assembly; and

1 (B) the United States should work with
2 ICAO and other international aviation safety
3 groups, further bolstering the components of
4 airmanship.

5 **SEC. 120. NONCONFORMITY WITH APPROVED TYPE DESIGN.**

6 Section 44704(d) of title 49, United States Code, is
7 amended by adding at the end the following:

8 “(3) NONCONFORMITY WITH APPROVED TYPE
9 DESIGN.—

10 “(A) IN GENERAL.—Consistent with the
11 requirements of paragraph (1), a holder of a
12 production certificate for an aircraft may not
13 present a nonconforming aircraft, either directly
14 or through the registered owner of such aircraft
15 or a person described in paragraph (2), to the
16 Administrator for issuance of an initial air-
17 worthiness certificate.

18 “(B) CIVIL PENALTY.—Notwithstanding
19 section 46301, a production certificate holder
20 who knowingly violates subparagraph (A) shall
21 be liable to the Administrator for a civil penalty
22 of not more than \$1,000,000 for each noncon-
23 forming aircraft.

24 “(C) PENALTY CONSIDERATIONS.—In de-
25 termining the amount of a civil penalty under

1 subparagraph (B), the Administrator shall con-
2 sider—

3 “(i) the nature, circumstances, extent,
4 and gravity of the violation, including the
5 length of time the nonconformity was
6 known by the holder of a production cer-
7 tificate but not disclosed; and

8 “(ii) with respect to the violator, the
9 degree of culpability, any history of prior
10 violations, and the size of the business con-
11 cern.

12 “(D) NONCONFORMING AIRCRAFT DE-
13 FINED.—In this paragraph, the term ‘noncon-
14 forming aircraft’ means an aircraft that does
15 not conform to the approved type design for
16 such aircraft type.”.

17 **SEC. 121. IMPLEMENTATION OF RECOMMENDATIONS.**

18 (a) IN GENERAL.—Not later than 1 year after the
19 date of enactment of this title, the Administrator shall
20 submit a report to the congressional committees of juris-
21 diction on the status of the Administration’s implementa-
22 tion of covered recommendations.

23 (b) CONTENTS.—The report required under sub-
24 section (a) shall contain, at a minimum—

1 (1) a list and description of all covered rec-
2 ommendations;

3 (2) a determination of whether the Adminis-
4 trator concurs, concurs in part, or does not concur
5 with each covered recommendation;

6 (3) an implementation plan and schedule for all
7 covered recommendations the Administrator concurs
8 or concurs in part with; and

9 (4) for each covered recommendation with
10 which the Administrator does not concur (in whole
11 or in part), a detailed explanation as to why.

12 (c) COVERED RECOMMENDATIONS DEFINED.—In
13 this section, the term “covered recommendations” means
14 recommendations made by the following entities in any re-
15 view initiated in response to the accident of Lion Air flight
16 610 on October 29, 2018, or Ethiopian Airlines flight 302
17 on March 10, 2019, that recommend Administration ac-
18 tion:

19 (1) The National Transportation Safety Board.

20 (2) The Joint Authorities Technical Review.

21 (3) The inspector general of the Department of
22 Transportation.

23 (4) The Safety Oversight and Certification Ad-
24 visory Committee, or any special committee thereof.

1 (5) Any other entity the Administrator may
2 designate.

3 **SEC. 122. OVERSIGHT OF FAA COMPLIANCE PROGRAM.**

4 (a) IN GENERAL.—Not later than 180 days after the
5 date of enactment of this title, the Administrator shall es-
6 tablish an Executive Council within the Administration to
7 oversee the use and effectiveness across program offices
8 of the Administration’s Compliance Program, described in
9 Order 8000.373A dated October 31, 2018.

10 (b) COMPLIANCE PROGRAM OVERSIGHT.—The Exec-
11 utive Council established under this section shall—

12 (1) monitor, collect, and analyze data on the
13 use of the Compliance Program across program of-
14 fices of the Administration, including data on en-
15 forcement actions and compliance actions pursued
16 against regulated entities by such program offices;

17 (2) conduct an evaluation of the Compliance
18 Program, not less frequently than annually each cal-
19 endar year through 2023, to assess the functioning
20 and effectiveness of such program in meeting the
21 stated goals and purpose of the program;

22 (3) provide reports to the Administrator con-
23 taining the results of any evaluation conducted
24 under paragraph (2), including identifying in such
25 report any nonconformities or deficiencies in the im-

1 plementation of the program and compliance of reg-
2 ulated entities with safety standards of the Adminis-
3 tration;

4 (4) make recommendations to the Adminis-
5 trator on regulations, guidance, performance stand-
6 ards or metrics, or other controls that should be
7 issued by the Administrator to improve the effective-
8 ness of the Compliance Program in meeting the stat-
9 ed goals and purpose of the program and to ensure
10 the highest levels of aviation safety; and

11 (5) carry out any other oversight duties with re-
12 spect to implementation of the Compliance Program
13 and assigned by the Administrator.

14 (c) EXECUTIVE COUNCIL.—

15 (1) EXECUTIVE COUNCIL MEMBERSHIP.—The
16 Executive Council shall be comprised of representa-
17 tives from each program office with regulatory re-
18 sponsibility as provided in Order 8000.373A.

19 (2) CHAIRPERSON.—The Executive Council
20 shall be chaired by a person, who shall be appointed
21 by the Administrator and shall report directly to the
22 Administrator.

23 (3) INDEPENDENCE.—The Secretary of Trans-
24 portation, the Administrator, or any officer or em-
25 ployee of the Administration may not prevent or pro-

1 hibit the chair of the Executive Council from per-
2 forming the activities described in this section or
3 from reporting to Congress on such activities.

4 (4) DURATION.—The Executive Council shall
5 terminate on October 1, 2023.

6 (d) ANNUAL BRIEFING.—Each calendar year
7 through 2023, the chair of the Executive Council shall
8 provide a briefing to the congressional committees of juris-
9 diction on the effectiveness of the Administration’s Com-
10 pliance Program in meeting the stated goals and purpose
11 of the program and the activities of the office described
12 in subsection (b), including any reports and recommenda-
13 tions made by the office during the preceding calendar
14 year.

15 **SEC. 123. SETTLEMENT AGREEMENT.**

16 (a) SENSE OF CONGRESS.—It is the sense of Con-
17 gress that the Administrator should fully exercise all
18 rights and pursue all remedies available to the Adminis-
19 trator under any settlement agreement between the Ad-
20 ministration and the holder of a type certificate and pro-
21 duction certificate for transport airplanes executed on De-
22 cember 18, 2015, including a demand for full payment of
23 any applicable civil penalties deferred under such agree-
24 ment, if the Administrator concludes that such holder has

1 not fully performed all obligations incurred under such
2 agreement.

3 (b) CONGRESSIONAL BRIEFING.—Not later than 60
4 days after the date of enactment of this title, and every
5 6 months thereafter until a certificate holder described in
6 subsection (a) has fully performed all obligations incurred
7 by such certificate holder under such settlement agree-
8 ment, the Administrator shall brief the congressional com-
9 mittees of jurisdiction on action taken consistent with sub-
10 section (a).

11 **SEC. 124. HUMAN FACTORS EDUCATION PROGRAM.**

12 (a) HUMAN FACTORS EDUCATION PROGRAM.—

13 (1) IN GENERAL.—The Administrator shall de-
14 velop a human factors education program that ad-
15 dresses the effects of modern flight deck systems, in-
16 cluding automated systems, on human performance
17 for transport airplanes and the approaches for better
18 integration of human factors in aircraft design and
19 certification.

20 (2) TARGET AUDIENCE.—The human factors
21 education program shall be integrated into the train-
22 ing protocols (as in existence as of the date of enact-
23 ment of this title) for, and be routinely administered
24 to, the following:

1 (A) Appropriate employees within the
2 Flight Standards Service.

3 (B) Appropriate employees within the Air-
4 craft Certification Service.

5 (C) Other employees or authorized rep-
6 resentatives determined to be necessary by the
7 Administrator.

8 (b) TRANSPORT AIRPLANE MANUFACTURER INFOR-
9 MATION SHARING.—The Administrator shall—

10 (1) require each transport airplane manufac-
11 turer to provide the Administrator with the informa-
12 tion or findings necessary for flight crew to be
13 trained on flight deck systems;

14 (2) ensure the information or findings under
15 paragraph (1) adequately includes consideration of
16 human factors; and

17 (3) ensure that each transport airplane manu-
18 facturer identifies any technical basis, justification
19 or rationale for the information and findings under
20 paragraph (1).

21 **SEC. 125. BEST PRACTICES FOR ORGANIZATION DESIGNA-**
22 **TION AUTHORIZATIONS.**

23 (a) IN GENERAL.—Section 213 of the FAA Reau-
24 thorization Act of 2018 (Public Law 115–254, 132 Stat.
25 3249) is amended—

1 (1) by striking subsection (g);

2 (2) by redesignating subsections (e) through (f)

3 as subsections (d) through (g), respectively;

4 (3) by inserting after subsection (b), the fol-
5 lowing:

6 “(c) BEST PRACTICES REVIEW.—In addition to con-
7 ducting the survey required under subsection (b), the
8 Panel shall conduct a review of a sampling of ODA holders
9 to identify and develop best practices. At a minimum, the
10 best practices shall address preventing and deterring in-
11 stances of undue pressure on or by an ODA unit member,
12 within an ODA, or by an ODA holder, or failures to main-
13 tain independence between the FAA and an ODA holder
14 or an ODA unit member. In carrying out such review, the
15 Panel shall—

16 “(1) examine other government regulated indus-
17 tries to gather lessons learned, procedures, or proc-
18 esses that address undue pressure of employees, per-
19 ceived regulatory coziness, or other failures to main-
20 tain independence;

21 “(2) identify ways to improve communications
22 between an ODA Administrator, ODA unit mem-
23 bers, and FAA engineers and inspectors, consistent
24 with section 44736(g) of title 49, United States
25 Code, in order to enable direct communication of

1 technical concerns that arise during a certification
2 project without fear of reprisal to the ODA Adminis-
3 trator or ODA unit member; and

4 “(3) examine FAA designee programs, includ-
5 ing the assignment of FAA advisors to designees, to
6 determine which components of the program may
7 improve the FAA’s oversight of ODA units, ODA
8 unit members, and the ODA program.”;

9 (4) in subsection (d) (as redesignated by para-
10 graph (2))—

11 (A) by striking paragraph (3) and redesign-
12 ating paragraphs (4) through (6) as para-
13 graphs (3) through (5), respectively;

14 (B) in paragraph (4) (as redesignated by
15 subparagraph (A)), by striking “and” at the
16 end;

17 (C) in paragraph (5) (as so redesignated),
18 by striking the period at the end and inserting
19 “; and”; and

20 (D) by adding at the end the following:

21 “(6) the results of the review conducted under
22 subsection (c).”; and

23 (5) by inserting after subsection (g) (as redesign-
24 ated by paragraph (2)), the following:

25 “(h) BEST PRACTICES ADOPTION.—

1 “(1) IN GENERAL.—Not later than 180 days
2 after the date on which the Administrator receives
3 the report required under subsection (e), the Admin-
4 istrator shall establish best practices that are gen-
5 erally applicable to all ODA holders and require
6 such practices to be incorporated, as appropriate,
7 into each ODA holder’s approved procedures man-
8 ual.

9 “(2) NOTICE AND COMMENT PERIOD.—The Ad-
10 ministrator shall publish the established best prac-
11 tices for public notice and comment for not fewer
12 than 60 days prior to requiring the practices, as ap-
13 propriate, be incorporated into each ODA holder’s
14 approved procedures manual.

15 “(i) SUNSET.—The Panel shall terminate on the ear-
16 lier of—

17 “(1) the date of submission of the report under
18 subsection (e); or

19 “(2) the date that is 2 years after the date on
20 which the Panel is first convened under subsection
21 (a).”.

22 (b) PROCEDURES MANUAL.—Section 44736(b)(3) of
23 title 49, United States Code, as amended by subsection
24 (c)(2)(D) of section 107), is further amended—

1 (1) in subparagraph (D) (as redesignated by
2 such subsection), by striking “and” after the semi-
3 colon at the end;

4 (2) in subparagraph (E) (as so redesignated),
5 by striking the period at the end and inserting “;
6 and”; and

7 (3) by adding at the end the following:

8 “(F) ensure the ODA holders procedures
9 manual contains procedures and policies based
10 on best practices established by the Adminis-
11 trator.”.

12 **SEC. 126. HUMAN FACTORS RESEARCH.**

13 (a) HUMAN FACTORS.—Not later than 180 days
14 after the date of enactment of this title, the Administrator,
15 in consultation with aircraft manufacturers, operators,
16 and pilots, and in coordination with the head of such other
17 Federal agency that the Administrator determines appro-
18 priate, shall develop research requirements to address the
19 integration of human factors in the design and certifi-
20 cation of aircraft that are intended for use in air transpor-
21 tation.

22 (b) REQUIREMENTS.—In developing such research
23 requirements, the Administrator shall—

24 (1) establish goals for research in areas of
25 study relevant to advancing technology, improving

1 design engineering and certification practices, and
2 facilitating better understanding of human factors
3 concepts in the context of the growing development
4 and reliance on automated or complex flight deck
5 systems in aircraft operations, including the develop-
6 ment of tools to validate pilot recognition and re-
7 sponse assumptions and diagnostic tools to improve
8 the clarity of failure indications presented to pilots;

9 (2) take into consideration and leverage any ex-
10 isting or planned research that is conducted by, or
11 conducted in partnership with, the FAA; and

12 (3) focus on—

13 (A) preventing a recurrence of the types of
14 accidents that have involved transport category
15 airplanes designed and manufactured in the
16 United States; and

17 (B) increasingly complex aircraft systems
18 and designs.

19 (c) IMPLEMENTATION.—In implementing the re-
20 search requirements developed under this section, the Ad-
21 ministrator shall work with appropriate organizations and
22 authorities with expertise including, to the maximum ex-
23 tent practicable, the Center of Excellence for Technical
24 Training and Human Performance and the Center of Ex-
25 cellence developed or expanded pursuant to section 127.

1 (d) AUTHORIZATION OF APPROPRIATIONS.—There is
2 authorized to be appropriated to the Administrator
3 \$7,500,000 for each of fiscal years 2021 through 2023,
4 out of funds made available under section 48102(a) of title
5 49, United States Code, to carry out this section.

6 **SEC. 127. FAA CENTER OF EXCELLENCE FOR AUTOMATED**
7 **SYSTEMS AND HUMAN FACTORS IN AIR-**
8 **CRAFT.**

9 (a) IN GENERAL.—The Administrator shall develop
10 or expand a Center of Excellence focused on automated
11 systems and human factors in transport category aircraft.

12 (b) DUTIES.—The Center of Excellence shall, as ap-
13 propriate—

14 (1) facilitate collaboration among academia, the
15 FAA, and the aircraft and airline industries, includ-
16 ing aircraft, engine, and equipment manufacturers,
17 air carriers, and representatives of the pilot commu-
18 nity;

19 (2) establish goals for research in areas of
20 study relevant to advancing technology, improving
21 engineering practices, and facilitating better under-
22 standing of human factors concepts in the context of
23 the growing development and reliance on automated
24 or complex systems in commercial aircraft, including
25 continuing education and training;

1 (3) examine issues related to human system in-
2 tegration and flight crew and aircraft interfaces, in-
3 cluding tools and methods to support the integration
4 of human factors considerations into the aircraft de-
5 sign and certification process; and

6 (4) review safety reports to identify potential
7 human factors issues for research.

8 (c) AVOIDING DUPLICATION OF WORK.—In devel-
9 oping or expanding the Center of Excellence, the Adminis-
10 trator shall ensure the work of the Center of Excellence
11 does not duplicate or overlap with the work of any other
12 established center of excellence.

13 (d) MEMBER PRIORITIZATION.—

14 (1) IN GENERAL.—The Administrator, when de-
15 veloping or expanding the Center of Excellence, shall
16 prioritize the inclusion of subject-matter experts
17 whose professional experience enables them to be ob-
18 jective and impartial in their contributions to the
19 greatest extent possible.

20 (2) REPRESENTATION.—The Administrator
21 shall require that the membership of the Center of
22 Excellence reflect a balanced viewpoint across broad
23 disciplines in the aviation industry.

24 (3) DISCLOSURE.—Any member of the Center
25 of Excellence who is a Boeing Company or FAA em-

1 ployee who participated in the certification of the
2 Maneuvering Characteristics Augmentation System
3 for the 737 MAX-8 airplane must disclose such in-
4 volvement to the FAA prior to performing any work
5 on behalf of the FAA.

6 (4) TRANSPARENCY.—In developing or expand-
7 ing the Center of Excellence, the Administrator shall
8 develop procedures to facilitate transparency and ap-
9 propriate maintenance of records to the maximum
10 extent practicable.

11 (5) COORDINATION.—Nothing in this section
12 shall preclude coordination and collaboration be-
13 tween the Center of Excellence developed or ex-
14 panded under this section and any other established
15 center of excellence.

16 (e) AUTHORIZATION OF APPROPRIATIONS.—There is
17 authorized to be appropriated to the Administrator
18 \$2,000,000 for each of fiscal years 2021 through 2023,
19 out of funds made available under section 48102(a) of title
20 49, United States Code, to carry out this section. Amounts
21 appropriated under the preceding sentence for any fiscal
22 year shall remain available until expended.

23 **SEC. 128. PILOT OPERATIONAL EVALUATIONS.**

24 (a) PILOT OPERATIONAL EVALUATIONS.—Not later
25 than 1 year after the date of enactment of this title, the

1 Administrator shall revise existing policies for manufac-
2 turers of transport airplanes to ensure that pilot oper-
3 ational evaluations for airplane types that are submitted
4 for certification utilize pilots from air carriers that are ex-
5 pected to operate such airplanes.

6 (b) REQUIREMENT.—Such manufacturer shall en-
7 sure, to the satisfaction of the Administrator, that the air
8 carrier and foreign air carrier pilots used for such evalua-
9 tions include pilots of varying levels of experience.

10 **SEC. 129. ENSURING APPROPRIATE RESPONSIBILITY OF**
11 **AIRCRAFT CERTIFICATION AND FLIGHT**
12 **STANDARDS PERFORMANCE OBJECTIVES**
13 **AND METRICS.**

14 (a) REPEALS.—Sections 211 and 221 of the FAA Re-
15 authorization Act of 2018 (49 U.S.C. 44701 note) are re-
16 pealed.

17 (b) CONFORMING REPEALS.—Paragraphs (8) and (9)
18 of section 202(c) of the FAA Reauthorization Act of 2018
19 (49 U.S.C. 44701 note) are repealed.

20 **SEC. 130. TRANSPORT AIRPLANE RISK ASSESSMENT METH-**
21 **ODOLOGY.**

22 (a) DEADLINES.—

23 (1) AGREEMENT.—Not later than 15 days after
24 the date of enactment of this title, the Administrator
25 shall enter into an agreement with the National

1 Academies of Sciences to develop a report regarding
2 the methodology and effectiveness of the Transport
3 Airplane Risk Assessment Methodology (TARAM)
4 process used by the FAA.

5 (2) REPORT.—Not later than 180 days after
6 the date of enactment of this title, the National
7 Academies of Sciences shall deliver such report to
8 the congressional committees of jurisdiction.

9 (b) ELEMENTS.—The report under subsection (a)
10 shall include the following elements:

11 (1) An assessment of the TARAM analysis
12 process.

13 (2) An assessment of the effectiveness of the
14 TARAM for the purposes of improving aviation safe-
15 ty.

16 (3) Recommendations to improve the method-
17 ology and effectiveness of the TARAM as an element
18 of aviation safety.

19 (c) REQUIRED NOTICE.—The Administrator shall
20 provide notice to the congressional committees of jurisdic-
21 tion on the findings and recommendations of a TARAM
22 conducted following a transport airplane accident—

23 (1) in which a loss of life occurred; and

24 (2) for which the Administrator determines that
25 the issuance of an airworthiness directive will likely

1 be necessary to correct an unsafe condition associ-
2 ated with the design of the relevant aircraft type.

3 **SEC. 131. NATIONAL AIR GRANT FELLOWSHIP PROGRAM.**

4 (a) PROGRAM.—

5 (1) PROGRAM MAINTENANCE.—The Adminis-
6 trator shall maintain within the FAA a program to
7 be known as the “National Air Grant Fellowship
8 Program”.

9 (2) PROGRAM ELEMENTS.—The National Air
10 Grant Fellowship Program shall provide support for
11 the fellowship program under subsection (b).

12 (3) RESPONSIBILITIES OF ADMINISTRATOR.—

13 (A) GUIDELINES.—The Administrator
14 shall establish guidelines related to the activi-
15 ties and responsibilities of air grant fellowships
16 under subsection (b).

17 (B) QUALIFICATIONS.—The Administrator
18 shall by regulation prescribe the qualifications
19 required for designation of air grant fellowships
20 under subsection (b).

21 (C) AUTHORITY.—In order to carry out
22 the provisions of this section, the Administrator
23 may—

24 (i) appoint, assign the duties, trans-
25 fer, and fix the compensation of such per-

1 sonnel as may be necessary, in accordance
2 with civil service laws;

3 (ii) make appointments with respect
4 to temporary and intermittent services to
5 the extent authorized by section 3109 of
6 title 5, United States Code;

7 (iii) enter into contracts, cooperative
8 agreements, and other transactions without
9 regard to section 6101 of title 41, United
10 States Code;

11 (iv) notwithstanding section 1342 of
12 title 31, United States Code, accept dona-
13 tions and voluntary and uncompensated
14 services;

15 (v) accept funds from other Federal
16 departments and agencies, including agen-
17 cies within the FAA, to pay for and add to
18 activities authorized by this section; and

19 (vi) promulgate such rules and regula-
20 tions as may be necessary and appropriate.

21 (4) DIRECTOR OF NATIONAL AIR GRANT FEL-
22 LOWSHIP PROGRAM.—

23 (A) IN GENERAL.—The Administrator
24 shall appoint, as the Director of the National
25 Air Grant Fellowship Program, a qualified indi-

1 vidual who has appropriate administrative expe-
2 rience and knowledge or expertise in fields re-
3 lated to aerospace. The Director shall be ap-
4 pointed and compensated, without regard to the
5 provisions of title 5 governing appointments in
6 the competitive service, at a rate payable under
7 section 5376 of title 5, United States Code.

8 (B) DUTIES.—Subject to the supervision
9 of the Administrator, the Director shall admin-
10 ister the National Air Grant Fellowship Pro-
11 gram. In addition to any other duty prescribed
12 by law or assigned by the Administrator, the
13 Director shall—

14 (i) cooperate with institutions of high-
15 er education that offer degrees in fields re-
16 lated to aerospace;

17 (ii) encourage the participation of
18 graduate and post-graduate students in the
19 National Air Grant Fellowship Program;
20 and

21 (iii) cooperate and coordinate with
22 other Federal activities in fields related to
23 aerospace.

24 (b) FELLOWSHIPS.—

1 (1) IN GENERAL.—The Administrator shall
2 support a program of fellowships for qualified indi-
3 viduals at the graduate and post-graduate level. The
4 fellowships shall be in fields related to aerospace and
5 awarded pursuant to guidelines established by the
6 Administrator. The Administrator shall strive to en-
7 sure equal access for minority and economically dis-
8 advantaged students to the program carried out
9 under this paragraph.

10 (2) AEROSPACE POLICY FELLOWSHIP.—

11 (A) IN GENERAL.—The Administrator
12 shall award aerospace policy fellowships to sup-
13 port the placement of individuals at the grad-
14 uate level of education in fields related to aero-
15 space in positions with—

16 (i) the executive branch of the United
17 States Government; and

18 (ii) the legislative branch of the
19 United States Government.

20 (B) PLACEMENT PRIORITIES FOR LEGISLA-
21 TIVE FELLOWSHIPS.—

22 (i) IN GENERAL.—In considering the
23 placement of individuals receiving a fellow-
24 ship for a legislative branch position under
25 subparagraph (A)(ii), the Administrator

1 shall give priority to placement of such in-
2 dividuals in the following:

3 (I) Positions in offices of, or with
4 Members on, committees of Congress
5 that have jurisdiction over the FAA.

6 (II) Positions in offices of Mem-
7 bers of Congress that have a dem-
8 onstrated interest in aerospace policy.

9 (ii) **EQUITABLE DISTRIBUTION.**—In
10 placing fellows in positions described under
11 clause (i), the Administrator shall ensure
12 that placements are equally distributed
13 among the political parties.

14 (C) **DURATION.**—A fellowship awarded
15 under this paragraph shall be for a period of
16 not more than 1 year.

17 (3) **RESTRICTION ON USE OF FUNDS.**—
18 Amounts available for fellowships under this sub-
19 section, including amounts accepted under sub-
20 section (a)(3)(C)(v) or appropriated under sub-
21 section (d) to carry out this subsection, shall be used
22 only for award of such fellowships and administra-
23 tive costs of implementing this subsection.

24 (c) **INTERAGENCY COOPERATION.**—Each depart-
25 ment, agency, or other instrumentality of the Federal Gov-

1 ernment that is engaged in or concerned with, or that has
2 authority over, matters relating to aerospace—

3 (1) may, upon a written request from the Ad-
4 ministrator, make available, on a reimbursable basis
5 or otherwise, any personnel (with their consent and
6 without prejudice to their position and rating), serv-
7 ice, or facility that the Administrator deems nec-
8 essary to carry out any provision of this section;

9 (2) shall, upon a written request from the Ad-
10 ministrator, furnish any available data or other in-
11 formation that the Administrator deems necessary to
12 carry out any provision of this section; and

13 (3) shall cooperate with the FAA and duly au-
14 thorized officials thereof.

15 (d) AUTHORIZATION OF APPROPRIATIONS.—There is
16 authorized to be appropriated to the Administrator
17 \$15,000,000 for each of fiscal years 2021 through 2025
18 to carry out this section. Amounts appropriated under the
19 preceding sentence shall remain available until expended.

20 (e) DEFINITIONS.—In this section:

21 (1) DIRECTOR.—The term “Director” means
22 the Director of the National Air Grant Fellowship
23 Program, appointed pursuant to subsection (a)(4).

24 (2) FIELDS RELATED TO AEROSPACE.—The
25 term “fields related to aerospace” means any dis-

1 cipline or field that is concerned with, or likely to
2 improve, the development, assessment, operation,
3 safety, or repair of aircraft and other airborne ob-
4 jects and systems, including the following:

5 (A) Aerospace engineering.

6 (B) Aerospace physiology.

7 (C) Aeronautical engineering.

8 (D) Airworthiness engineering.

9 (E) Electrical engineering.

10 (F) Human factors.

11 (G) Software engineering.

12 (H) Systems engineering.

13 **SEC. 132. EMERGING SAFETY TRENDS IN AVIATION.**

14 (a) GENERAL.—Not later than 180 days after the
15 date of enactment of this title, the Administrator shall
16 enter into an agreement with the Transportation Research
17 Board for the purposes of developing an annual report
18 identifying, categorizing, and analyzing emerging safety
19 trends in air transportation.

20 (b) FACTORS.—The emerging safety trends report
21 should be based on the following data:

22 (1) The National Transportation Safety
23 Board's investigation of accidents under section
24 1132 of title 49, United States Code.

1 (2) The Administrator’s investigations of acci-
2 dents and incidents under section 40113 of title 49,
3 United States Code.

4 (3) Information provided by air operators pur-
5 suant to safety management systems.

6 (4) International investigations of accidents and
7 incidents, including reports, data, and information
8 from foreign authorities and ICAO.

9 (5) Other sources deemed appropriate for estab-
10 lishing emerging safety trends in the aviation sector,
11 including the FAA’s annual safety culture assess-
12 ment required under subsection (c).

13 (c) SAFETY CULTURE ASSESSMENT.—The Adminis-
14 trator shall conduct an annual safety culture assessment
15 through fiscal year 2031, which shall include surveying all
16 employees in the FAA’s Aviation Safety organization
17 (AVS) to determine the employees’ collective opinion re-
18 garding, and to assess the health of, AVS’ safety culture
19 and implementation of any voluntary safety reporting pro-
20 gram.

21 (d) EXISTING REPORTING SYSTEMS.—The Executive
22 Director of the Transportation Research Board, in con-
23 sultation with the Secretary of Transportation and Admin-
24 istrator, may take into account and, as necessary, har-

1 monize data and sources from existing reporting systems
2 within the Department of Transportation and FAA.

3 (e) BIENNIAL REPORT TO CONGRESS.—One year
4 after the Administrator enters into the agreement with the
5 Transportation Research Board as set forth in subsection
6 (a), and biennially thereafter through fiscal year 2031, the
7 Executive Director, in consultation with the Secretary and
8 Administrator, shall submit to the congressional commit-
9 tees of jurisdiction a report identifying the emerging safe-
10 ty trends in air transportation.

11 **SEC. 133. FAA ACCOUNTABILITY ENHANCEMENT.**

12 (a) ENHANCEMENT OF THE AVIATION SAFETY WHIS-
13 TLEBLOWER INVESTIGATION OFFICE IN THE FEDERAL
14 AVIATION ADMINISTRATION.—

15 (1) RENAMING OF THE OFFICE.—

16 (A) IN GENERAL.—Section 106(t)(1) of
17 title 49, United States Code, is amended by
18 striking “an Aviation Safety Whistleblower In-
19 vestigation Office” and inserting “the Office of
20 Whistleblower Protection and Aviation Safety
21 Investigations”.

22 (B) CONFORMING AMENDMENT.—The
23 heading of subsection (t) of section 106 of title
24 49, United States Code, is amended by striking
25 “AVIATION SAFETY WHISTLEBLOWER INVES-

1 TIGATION OFFICE” and inserting “OFFICE OF
2 WHISTLEBLOWER PROTECTION AND AVIATION
3 SAFETY INVESTIGATIONS”.

4 (2) DUTIES.—

5 (A) IN GENERAL.—Section 106(t)(3)(A) of
6 title 49, United States Code, is amended—

7 (i) in clause (i), by striking “(if the
8 certificate holder does not have a similar
9 in-house whistleblower or safety and regu-
10 latory noncompliance reporting process)”
11 and inserting “(if the certificate holder
12 does not have a similar in-house whistle-
13 blower or safety and regulatory noncompli-
14 ance reporting process established under or
15 pursuant to a safety management sys-
16 tem)”;

17 (ii) in clause (ii), by striking “and” at
18 the end;

19 (iii) in clause (iii), by striking the pe-
20 riod at the end and inserting a semicolon;
21 and

22 (iv) by adding at the end the fol-
23 lowing:

1 “(iv) receive allegations of whistle-
2 blower retaliation by employees of the
3 Agency;

4 “(v) coordinate with and provide all
5 necessary assistance to the Office of Inves-
6 tigations and Professional Responsibility,
7 the inspector general of the Department of
8 Transportation, and the Office of Special
9 Counsel on investigations relating to whis-
10 tleblower retaliation by employees of the
11 Agency; and

12 “(vi) investigate allegations of whistle-
13 blower retaliation by employees of the
14 Agency that have been delegated to the Of-
15 fice by the Office of Investigations and
16 Professional Responsibility, the inspector
17 general of the Department of Transpor-
18 tation, or the Office of Special Counsel.”.

19 (B) LIMITATION.—Section 106(t)(2) of
20 title 49, United States Code, is amended by
21 adding at the end the following:

22 “(E) LIMITATION OF DUTIES.— The Di-
23 rector may only perform duties of the Director
24 described in paragraph (3)(A).”.

1 (C) CONFORMING AMENDMENTS.—Section
2 106(t)(7) of title 49, United States Code, is
3 amended—

4 (i) in the matter preceding subpara-
5 graph (A), by striking “October 1” and in-
6 serting “November 15”; and

7 (ii) in subparagraph (A), by striking
8 “paragraph (3)(A)(i) in the preceding 12-
9 month period” and inserting “paragraph
10 (3)(A)(i) in the preceding fiscal year”.

11 (3) REPORT.—Section 106(t)(7) of title 49,
12 United States Code, as amended by paragraph
13 (2)(C), is further amended—

14 (A) in subparagraph (C)—

15 (i) by inserting “the resolution of
16 those submissions, including any” before
17 “further”; and

18 (ii) by striking “and” after the semi-
19 colon;

20 (B) in subparagraph (D) by striking “rec-
21 ommendations.” and inserting “recommenda-
22 tions; and”; and

23 (C) by adding at the end the following:

24 “(E) A summary of the activities of the
25 Whistleblower Ombudsman, including—

1 “(i) the number of employee consulta-
2 tions conducted by the Whistleblower Om-
3 budsman in the preceding 12-month period
4 and a summary of such consultations and
5 their resolution (in a de-identified or
6 anonymized form); and

7 “(ii) the number of reported incidents
8 of retaliation during such period and, if
9 applicable, a description of the disposition
10 of such incidents during such period.”.

11 (b) WHISTLEBLOWER OMBUDSMAN.—Section 106(t)
12 of title 49, United States Code, is further amended by
13 adding at the end the following:

14 “(8) WHISTLEBLOWER OMBUDSMAN.—

15 “(A) IN GENERAL.—Within the Office,
16 there shall be established the position of Whis-
17 tleblower Ombudsman.

18 “(B) OMBUDSMAN QUALIFICATIONS.—The
19 individual selected as Ombudsman shall have
20 knowledge of Federal labor law and dem-
21 onstrated government experience in human re-
22 source management, and conflict resolution.

23 “(C) DUTIES.—The Ombudsman shall
24 carry out the following duties:

1 “(i) Educate Administration employ-
2 ees about prohibitions against materially
3 adverse acts of retaliation and any specific
4 rights or remedies with respect to those re-
5 taliatory actions.

6 “(ii) Serve as an independent con-
7 fidential resource for Administration em-
8 ployees to discuss any specific retaliation
9 allegation and available rights or remedies
10 based on the circumstances, as appro-
11 priate.

12 “(iii) Coordinate with Human Re-
13 source Management, the Office of Account-
14 ability and Whistleblower Protection, the
15 Office of Professional Responsibility, and
16 the Office of the Chief Counsel, as nec-
17 essary.

18 “(iv) Coordinate with the Office of the
19 Inspector General of the Department of
20 Transportation’s Whistleblower Protection
21 Coordinator and the Office of the Special
22 Counsel, as necessary.

23 “(v) Conduct outreach and assist in
24 the development of training within the
25 Agency to mitigate the potential for retal-

1 iation and promote timely and appropriate
2 processing of any protected disclosure or
3 allegation of materially adverse acts of re-
4 taliation.”.

5 (c) OFFICE OF INVESTIGATIONS AND PROFESSIONAL
6 RESPONSIBILITY.—The Administrator shall take such ac-
7 tion as may be necessary to redesignate the Office of In-
8 vestigations of the Administration as the Office of Inves-
9 tigations and Professional Responsibility.

10 (d) MISCONDUCT INVESTIGATIONS.—

11 (1) IN GENERAL.—The Administrator shall re-
12 view and revise the Administration’s existing inves-
13 tigative policies that govern the investigation of mis-
14 conduct by a manager of the Administration con-
15 ducted by the FAA (in this subsection referred to as
16 the “Agency”).

17 (2) PRESERVATION OF COLLECTIVE BAR-
18 GAINING AGREEMENTS.—The investigative policy es-
19 tablished under paragraph (1) shall not apply to, or
20 in the future, be extended by the Administrator to
21 apply to, any employee who is not a manager or is
22 covered by or eligible to be covered by a collective
23 bargaining agreement entered into by the Agency.

1 (3) REQUIREMENTS.—In revising the investiga-
2 tive policies, the Administrator shall ensure such
3 policies require—

4 (A) the utilization of investigative best
5 practices to ensure independent and objective
6 investigation and accurate recording and re-
7 porting of such investigation;

8 (B) the management of case files to ensure
9 the integrity of the information contained in
10 such case files;

11 (C) interviews be conducted in a manner
12 that ensures, to the greatest extent possible,
13 truthful answers and accurate records of such
14 interviews;

15 (D) coordination with the Office of the In-
16 specter General of the Department of Trans-
17 portation, the Office of the Special Counsel,
18 and the Attorney General, as appropriate; and

19 (E) the completion of investigations in a
20 timely manner.

21 (4) DEFINITION.—For purposes of this sub-
22 section, the term “manager” means an employee of
23 the Agency who is a supervisor or management offi-
24 cial, as defined in section 7103(a) of title 5, United
25 States Code.

1 **SEC. 134. AUTHORIZATION OF APPROPRIATIONS FOR THE**
2 **ADVANCED MATERIALS CENTER OF EXCEL-**
3 **LENCE.**

4 Section 44518 of title 49, United States Code, is
5 amended by adding at the end the following:

6 “(c) AUTHORIZATION OF APPROPRIATIONS.—Out of
7 amounts appropriated under section 48102(a), the Admin-
8 istrator may expend not more than \$10,000,000 for each
9 of fiscal years 2021 through 2023 to carry out this sec-
10 tion. Amounts appropriated under the preceding sentence
11 for each fiscal year shall remain available until ex-
12 pended.”.

13 **SEC. 135. PROMOTING AVIATION REGULATIONS FOR TECH-**
14 **NICAL TRAINING.**

15 (a) NEW REGULATIONS REQUIRED.—

16 (1) INTERIM FINAL REGULATIONS.—Not later
17 than 90 days after the date of enactment of this sec-
18 tion, the Administrator shall issue interim final reg-
19 ulations to establish requirements for issuing avia-
20 tion maintenance technician school certificates and
21 associated ratings and the general operating rules
22 for the holders of those certificates and ratings in
23 accordance with the requirements of this section.

24 (2) REPEAL OF CURRENT REGULATIONS.—

25 Upon the effective date of the interim final regula-
26 tions required under paragraph (1), part 147 of title

1 14, Code of Federal Regulations (as in effect on the
2 date of enactment of this title) and any regulations
3 issued under section 624 of the FAA Reauthoriza-
4 tion Act of 2018 (Public Law 115–254) shall have
5 no force or effect on or after the effective date of
6 such interim final regulations.

7 (b) AVIATION MAINTENANCE TECHNICIAN SCHOOL
8 CERTIFICATION REQUIRED.—No person may operate an
9 aviation maintenance technician school without, or in vio-
10 lation of, an aviation maintenance technician school cer-
11 tificate and the operations specifications issued under the
12 interim final regulations required under subsection (a)(1),
13 the requirements of this section, or in a manner that is
14 inconsistent with information in the school’s operations
15 specifications under subsection (c)(5).

16 (c) CERTIFICATE AND OPERATIONS SPECIFICATIONS
17 REQUIREMENTS.—

18 (1) APPLICATION REQUIREMENTS.—

19 (A) IN GENERAL.—An application for a
20 certificate or rating to operate an aviation
21 maintenance technician school shall include the
22 following:

23 (i) A description of the facilities, in-
24 cluding the physical address of the certifi-
25 cate holder’s primary location for operation

1 of the school, any additional fixed locations
2 where training will be provided, and the
3 equipment and materials to be used at
4 each location.

5 (ii) A description of the manner in
6 which the school's curriculum will ensure
7 the student has the knowledge and skills
8 necessary for attaining a mechanic certifi-
9 cate and associated ratings under subpart
10 D of part 65 of title 14, Code of Federal
11 Regulations (or any successor regulation).

12 (iii) A description of the manner in
13 which the school will ensure it provides the
14 necessary qualified instructors to meet the
15 requirements of subsection (d)(4).

16 (B) DOCUMENTED IN THE SCHOOL'S OP-
17 ERATIONS SPECIFICATIONS.—Upon issuance of
18 the school's certificate or rating, the informa-
19 tion required under subparagraph (A) shall be
20 documented in the school's operations specifica-
21 tions.

22 (2) CHANGE APPLICATIONS.—

23 (A) IN GENERAL.—An application for an
24 additional rating or amended certificate shall
25 include only the information necessary to sub-

1 stantiate the reason for the requested additional
2 rating or change.

3 (B) APPROVED CHANGES.—Any approved
4 changes shall be documented in the school’s op-
5 erations specifications.

6 (3) DURATION.—An aviation maintenance tech-
7 nician school certificate or rating issued under the
8 interim final regulations required under subsection
9 (a)(1) shall be effective from the date of issue until
10 the certificate or rating is surrendered, suspended,
11 or revoked.

12 (4) CERTIFICATE RATINGS.—An aviation main-
13 tenance technician school certificate issued under the
14 interim final regulations required under subsection
15 (a)(1) shall specify which of the following ratings are
16 held by the aviation maintenance technician school:

17 (A) Airframe.

18 (B) Powerplant.

19 (C) Airframe and Powerplant.

20 (5) OPERATIONS SPECIFICATIONS.—A certifi-
21 cated aviation maintenance technician school shall
22 operate in accordance with operations specifications
23 that include the following:

24 (A) The certificate holder’s name.

1 (B) The certificate holder's air agency cer-
2 tificate number.

3 (C) The name and contact information of
4 the certificate holder's primary point of contact.

5 (D) The physical address of the certificate
6 holder's primary location, as provided under
7 paragraph (1)(A).

8 (E) The physical address of any additional
9 location of the certificate holder, as provided
10 under subsection (d)(2).

11 (F) The ratings held, as provided under
12 paragraph (4).

13 (G) Any regulatory exemption granted to
14 the school by the Administrator.

15 (d) OPERATIONS REQUIREMENTS.—

16 (1) FACILITIES, EQUIPMENT, AND MATERIAL
17 REQUIREMENTS.—Each certificated aviation mainte-
18 nance technician school shall provide and maintain
19 the facilities, equipment, and materials that are ap-
20 propriate to the 1 or more ratings held by the school
21 and the number of students taught.

22 (2) TRAINING PROVIDED AT ANOTHER LOCA-
23 TION.—A certificated aviation maintenance techni-
24 cian school may provide training at any additional
25 location that meets the requirements of the interim

1 final regulations required under subsection (a)(1)
2 and is listed in the certificate holder's operations
3 specifications.

4 (3) TRAINING REQUIREMENTS.—Each certifi-
5 cated aviation maintenance technician school shall—

6 (A) establish, maintain, and utilize a cur-
7 riculum designed to continually align with me-
8 chanic airman certification standards as appro-
9 priate for the ratings held;

10 (B) provide training of a quality that
11 meets the requirements of subsection (f)(1);
12 and

13 (C) ensure students have the knowledge
14 and skills necessary to be eligible to test for a
15 mechanic certificate and associated ratings
16 under subpart D of part 65 of title 14, Code of
17 Federal Regulations (or any successor regula-
18 tion).

19 (4) INSTRUCTOR REQUIREMENTS.—Each cer-
20 tificated aviation maintenance technician school
21 shall—

22 (A) provide qualified instructors to teach
23 in a manner that ensures positive educational
24 outcomes are achieved;

1 (B) ensure instructors hold a mechanic
2 certificate with 1 or more appropriate ratings
3 (or, with respect to instructors who are not cer-
4 tified mechanics, ensure instructors are other-
5 wise specifically qualified to teach their as-
6 signed content); and

7 (C) ensure the student-to-instructor ratio
8 does not exceed 25:1 for any shop class.

9 (5) CERTIFICATE OF COMPLETION.—Each cer-
10 tified aviation maintenance technician school shall
11 provide authenticated documentation to each grad-
12 uating student, indicating the student’s date of
13 graduation and curriculum completed, as described
14 in paragraph (3)(A).

15 (e) QUALITY CONTROL SYSTEM.—

16 (1) ACCREDITATION.—Each aviation mainte-
17 nance technician school shall—

18 (A) be accredited as meeting the definition
19 of an institution of higher education provided
20 for in section 101 of the Higher Education Act
21 of 1965 (20 U.S.C. 1001); or

22 (B) establish and maintain a quality con-
23 trol system that meets the requirements speci-
24 fied in paragraph (2) and is approved by the
25 Administrator.

1 (2) FAA-APPROVED SYSTEM REQUIREMENTS.—

2 In the case of an aviation maintenance technician
3 school that is not accredited as set forth in para-
4 graph (1), the Administrator shall approve a quality
5 control system that provides procedures for record-
6 keeping, assessment, issuing credit, issuing of final
7 course grades, attendance, ensuring sufficient num-
8 ber of instructors, granting of graduation docu-
9 mentation, and corrective action for addressing defi-
10 ciencies.

11 (f) ADDITIONAL REQUIREMENTS.—

12 (1) MINIMUM PASSAGE RATE.—A certificated
13 aviation maintenance technician school shall main-
14 tain a pass rate of at least 70 percent of students
15 who took a written, oral, or practical (or any com-
16 bination thereof) FAA mechanic tests within 60 days
17 of graduation for the most recent 3-year period .

18 (2) FAA INSPECTION.—A certificated aviation
19 maintenance technician school shall allow the Ad-
20 ministrator such access as the Administrator deter-
21 mines necessary to inspect the 1 or more locations
22 of the school for purposes of determining the
23 school's compliance with the interim final regula-
24 tions required under subsection (a)(1), the proce-
25 dures and information outlined in the school's oper-

1 ations specifications according to subsection (c)(5),
2 and the aviation maintenance technician school cer-
3 tificate issued for the school.

4 (3) **DISPLAY OF CERTIFICATE.**—A certificated
5 aviation maintenance technician school shall display
6 its aviation maintenance technician school certificate
7 at a location in the school that is visible by and nor-
8 mally accessible to the public.

9 (4) **EARLY TESTING.**—A certificated aviation
10 maintenance technician school may issue authenti-
11 cated documentation demonstrating a student’s sat-
12 isfactory progress, completion of corresponding por-
13 tions of the curriculum, and preparedness to take
14 the aviation mechanic written general knowledge
15 test, even if the student has not met the experience
16 requirements of section 65.77 of title 14, Code of
17 Federal Regulations (or any successor regulation).
18 Any such documentation shall specify the curriculum
19 the student completed and the completion date.

20 **SEC. 136. INDEPENDENT STUDY ON TYPE CERTIFICATION**
21 **REFORM.**

22 (a) **REPORT AND DEADLINES.**—Not later than 30
23 days after the date of enactment of this title, the Adminis-
24 trator shall enter into an agreement with an appropriate
25 Federally-funded research and development center to re-

1 view, develop, and submit a report to the Administrator
2 in accordance with the requirements and elements set
3 forth in this section.

4 (b) ELEMENTS.—The review and report under sub-
5 section (a) shall set forth analyses, assessments, and rec-
6 ommendations addressing the following elements for
7 transport category airplanes:

8 (1) Whether or not aviation safety would im-
9 prove as the result of institution of a fixed time be-
10 yond which a type certificate may not be amended.

11 (2) Requiring the Administrator, when issuing
12 an amended or supplemental type certificate for a
13 design that does not comply with the latest amend-
14 ments to the applicable airworthiness standards, to
15 document any exception from the latest amendment
16 to an applicable regulation, issue an exemption in
17 accordance with section 44701 of title 14, United
18 States Code, or make a finding of an equivalent level
19 of safety in accordance with section 21.21(a)(1) of
20 title 14, Code of Federal Regulations.

21 (3) Safety benefits and costs for certification of
22 transport category airplanes resulting from the im-
23 plementation of paragraphs (1) and (2).

24 (4) Effects on the development and introduction
25 of advancements in new safety enhancing design and

1 technologies, and continued operation and oper-
2 ational safety support of products in service in the
3 United States and worldwide, resulting from the im-
4 plementation of paragraphs (1) and (2).

5 (c) INVESTIGATIONS AND REPORTS.—The review and
6 report under subsection (a) shall take into consideration
7 investigations, reports, and assessments regarding the
8 Boeing 737 MAX, including but not limited to investiga-
9 tions, reports, and assessments by the Joint Authorities
10 Technical Review, the National Transportation Safety
11 Board, the Department of Transportation Office of the In-
12 spector General, the Department of Transportation Spe-
13 cial Committee, the congressional committees of jurisdic-
14 tion and other congressional committees, and foreign au-
15 thorities. The review and report under subsection (a) also
16 shall consider the impact of changes made by this title
17 and the amendments made by this title.

18 (d) REPORT TO CONGRESS.—Not later than 270 days
19 after the report developed under subsection (a) is sub-
20 mitted to the Administrator, the Administrator shall sub-
21 mit a report to the congressional committees of jurisdic-
22 tion regarding the FAA's response to the findings and rec-
23 ommendations of the report, what actions the FAA will
24 take as a result of such findings and recommendations,

1 and the FAA rationale for not taking action on any spe-
2 cific recommendation

3 **SEC. 137. DEFINITIONS.**

4 In this title:

5 (1) ADMINISTRATION; FAA.—The terms “Ad-
6 ministration” and “FAA” mean the Federal Avia-
7 tion Administration.

8 (2) ADMINISTRATOR.—The term “Adminis-
9 trator” means the Administrator of the FAA.

10 (3) CONGRESSIONAL COMMITTEES OF JURISDIC-
11 TION.—The term “congressional committees of juris-
12 diction” means the Committee on Transportation
13 and Infrastructure of the House of Representatives
14 and the Committee on Commerce, Science, and
15 Transportation of the Senate.

16 (4) ICAO.—The term “ICAO” means the
17 International Civil Aviation Organization.

18 (5) ORGANIZATION DESIGNATION AUTHORIZA-
19 TION.—The term “organization designation author-
20 ization” has the same meaning given such term in
21 section 44736(c) of title 49, United States Code.

22 (6) TRANSPORT AIRPLANE.—The term “trans-
23 port airplane” means a transport category airplane
24 designed for operation by an air carrier or foreign
25 air carrier type-certificated with a passenger seating

1 capacity of 30 or more or an all-cargo or combi de-
2 rivative of such an airplane.

3 (7) TYPE CERTIFICATE.—The term “type cer-
4 tificate”—

5 (A) means a type certificate issued pursu-
6 ant to section 44704(a) of title 49, United
7 States Code, or an amendment to such certifi-
8 cate; and

9 (B) does not include a supplemental type
10 certificate issued under section 44704(b) of
11 such section.