

being adequately addressed by existing Federal research programs; and

(B) fund research to address those problems.

(2) GOVERNANCE.—The Secretary of Transportation shall appoint an independent governing board for the research program established under this subsection. The governing board shall be appointed from candidates nominated by national associations representing public airport operating agencies, airport executives, State aviation officials, and the scheduled airlines, and shall include representatives of appropriate Federal agencies. Section 1013 of title 5 shall not apply to the governing board.

(3) IMPLEMENTATION.—The Secretary of Transportation shall enter into an arrangement with the National Academy of Sciences to provide staff support to the governing board established under paragraph (2) and to carry out projects proposed by the governing board that the Secretary considers appropriate.

(4) REPORT.—Not later than September 30, 2012, the Secretary shall transmit to the Congress a report on the program.

(Pub. L. 103–272, §1(e), July 5, 1994, 108 Stat. 1181; Pub. L. 104–287, §5(74), Oct. 11, 1996, 110 Stat. 3396; Pub. L. 108–176, title VII, §712, Dec. 12, 2003, 117 Stat. 2586; Pub. L. 112–95, title IX, §906, Feb. 14, 2012, 126 Stat. 139; Pub. L. 117–286, §4(a)(314), Dec. 27, 2022, 136 Stat. 4340.)

HISTORICAL AND REVISION NOTES

| Revised Section | Source (U.S. Code) | Source (Statutes at Large)   |
|-----------------|--------------------|--|
| 44511 .....     | 49 App.:1353(g).   | Aug. 23, 1958, Pub. L. 85–726, 72 Stat. 731, §312(g); added Nov. 5, 1990, Pub. L. 101–508, §9205(a), 104 Stat. 1388–373. |

In this section, the words “institutions of higher education” and “institution of higher education” are substituted for “colleges, universities”, “university, college”, and “colleges and universities” for consistency in the revised title.

In subsection (c), the words “providing grants” are substituted for “the funding”, the word “grants” is substituted for “grant funds”, and the words “grant consideration” are substituted for “funding consideration”, for consistency in the revised title.

In subsection (d), the words “money provided under the grant” are substituted for “grant funds” for consistency.

Editorial Notes

AMENDMENTS

2022—Subsec. (f)(2). Pub. L. 117–286 substituted “Section 1013 of title 5” for “Section 14 of the Federal Advisory Committee Act”.

2012—Subsec. (f)(1). Pub. L. 112–95, §906(1), substituted “maintain an” for “establish a 4-year pilot” in introductory provisions.

Subsec. (f)(4). Pub. L. 112–95, §906(2), substituted “Not later than September 30, 2012,” for “Not later than 6 months after the expiration of the program under this subsection,” and “program” for “program, including recommendations as to the need for establishing a permanent airport cooperative research program”.

2003—Subsec. (f). Pub. L. 108–176 added subsec. (f).

1996—Subsec. (e). Pub. L. 104–287 substituted “Committee on Science” for “Committee on Science, Space, and Technology”.

Statutory Notes and Related Subsidiaries

CHANGE OF NAME

Committee on Science of House of Representatives changed to Committee on Science and Technology of House of Representatives by House Resolution No. 6, One Hundred Tenth Congress, Jan. 5, 2007. Committee on Science and Technology of House of Representatives changed to Committee on Science, Space, and Technology of House of Representatives by House Resolution No. 5, One Hundred Twelfth Congress, Jan. 5, 2011.

EFFECTIVE DATE OF 2003 AMENDMENT

Amendment by Pub. L. 108–176 applicable only to fiscal years beginning after Sept. 30, 2003, except as otherwise specifically provided, see section 3 of Pub. L. 108–176, set out as a note under section 106 of this title.

§ 44512. Catastrophic failure prevention research grants

(a) GENERAL AUTHORITY.—The Administrator of the Federal Aviation Administration may make grants to institutions of higher education and nonprofit research organizations—

(1) to conduct aviation research related to the development of technologies and methods to assess the risk of, and prevent, defects, failures, and malfunctions of products, parts, processes, and articles manufactured for use in aircraft, aircraft engines, propellers, and appliances that could result in a catastrophic failure of an aircraft; and

(2) to establish centers of excellence for continuing the research.

(b) SOLICITATION, APPLICATION, REVIEW, AND EVALUATION PROCESS.—The Administrator shall establish a solicitation, application, review, and evaluation process that ensures providing grants under this section for proposals having adequate merit and relevancy to the research described in subsection (a) of this section.

(Pub. L. 103–272, §1(e), July 5, 1994, 108 Stat. 1182.)

HISTORICAL AND REVISION NOTES

| Revised Section | Source (U.S. Code) | Source (Statutes at Large)   |
|-----------------|--------------------|--|
| 44512 .....     | 49 App.:1353(h).   | Aug. 23, 1958, Pub. L. 85–726, 72 Stat. 731, §312(h); added Nov. 5, 1990, Pub. L. 101–508, §9208(b), 104 Stat. 1388–376. |

In this section, the words “institutions of higher education” are substituted for “colleges, universities” for consistency in the revised title.

In subsection (b), the words “providing grants” are substituted for “the funding” for consistency in the revised title.

§ 44513. Regional centers of air transportation excellence

(a) GENERAL AUTHORITY.—The Administrator of the Federal Aviation Administration may make grants to institutions of higher education to establish and operate regional centers of air transportation excellence. The locations shall be distributed in a geographically fair way.

(b) RESPONSIBILITIES.—(1) The responsibilities of each center established under this section shall include—

(A) conducting research on—

(i) airspace and airport planning and design;

- (ii) airport capacity enhancement techniques;
- (iii) human performance in the air transportation environment;
- (iv) aviation safety and security;
- (v) the supply of trained air transportation personnel, including pilots and mechanics; and
- (vi) other aviation issues related to developing and maintaining a safe and efficient air transportation system; and

(B) interpreting, publishing, and disseminating the results of the research.

(2) In conducting research described in paragraph (1)(A) of this subsection, each center may make contracts with nonprofit research organizations and other appropriate persons.

(c) APPLICATIONS.—An institution of higher education interested in receiving a grant under this section may submit an application to the Administrator. The application must be in the form and contain the information that the Administrator requires by regulation.

(d) SELECTION CRITERIA.—The Administrator shall select recipients of grants under this section on the basis of the following criteria:

(1) the extent to which the needs of the State in which the applicant is located are representative of the needs of the region for improved air transportation services and facilities.

(2) the demonstrated research and extension resources available to the applicant to carry out this section.

(3) the ability of the applicant to provide leadership in making national and regional contributions to the solution of both long-range and immediate air transportation problems.

(4) the extent to which the applicant has an established air transportation program.

(5) the demonstrated ability of the applicant to disseminate results of air transportation research and educational programs through a statewide or regionwide continuing education program.

(6) the projects the applicant proposes to carry out under the grant.

(e) EXPENDITURE AGREEMENTS.—A grant may be made under this section in a fiscal year only if the recipient makes an agreement with the Administrator that the Administrator requires to ensure that the recipient will maintain its total expenditures from all other sources for establishing and operating the center and related research activities at a level at least equal to the average level of those expenditures in the 2 fiscal years of the recipient occurring immediately before November 5, 1990.

(f) GOVERNMENT'S SHARE OF COSTS.—The United States Government's share of establishing and operating a center and all related research activities that grant recipients carry out shall not exceed 50 percent of the costs, except that the Administrator may increase such share to a maximum of 75 percent of the costs for a fiscal year if the Administrator determines that a center would be unable to carry out the authorized activities described in this section without additional funds.

(g) ALLOCATING AMOUNTS.—The Administrator shall allocate amounts made available to carry out this section in a geographically fair way.

(h) ANNUAL REPORT.—The Administrator shall transmit annually to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate at the time of the President's budget request a report that lists—

(1) the research projects that have been initiated by each center in the preceding year;

(2) the amount of funding for each research project and the funding source;

(3) the institutions participating in each research project and their shares of the overall funding for each research project; and

(4) the level of cost-sharing for each research project.

(Pub. L. 103-272, § 1(e), July 5, 1994, 108 Stat. 1182; Pub. L. 112-95, title IX, § 907, Feb. 14, 2012, 126 Stat. 140.)

#### HISTORICAL AND REVISION NOTES

| <i>Revised Section</i> | <i>Source (U.S. Code)</i> | <i>Source (Statutes at Large)</i>  |
|------------------------|---------------------------|--|
| 44513 .....            | 49 App.:1353(i).          | Aug. 23, 1958, Pub. L. 85-726, 72 Stat. 731, §312(i); added Nov. 5, 1990, Pub. L. 101-508, §9209(a), 104 Stat. 1388-376. |

In this section, the words "institutions of higher education" and "institution of higher education" are substituted for "colleges or universities" and "college or university" for consistency in the revised title.

In subsection (a), the words "one or more" are omitted as surplus.

#### Editorial Notes

##### AMENDMENTS

2012—Subsec. (f). Pub. L. 112-95, §907(a), amended subsec. (f) generally. Prior to amendment, text read as follows: "The United States Government's share of a grant under this section is 50 percent of the costs of establishing and operating the center and related research activities that the grant recipient carries out."

Subsec. (h). Pub. L. 112-95, §907(b), added subsec. (h).

#### Statutory Notes and Related Subsidiaries

##### FAA CENTER OF EXCELLENCE FOR AUTOMATED SYSTEMS AND HUMAN FACTORS IN AIRCRAFT

Pub. L. 116-260, div. V, title I, §127, Dec. 27, 2020, 134 Stat. 2348, provided that:

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

"(b) DUTIES.—The Center of Excellence shall, as appropriate—

"(1) facilitate collaboration among academia, the FAA, and the aircraft and airline industries, including aircraft, engine, and equipment manufacturers, air carriers, and representatives of the pilot community;

"(2) establish goals for research in areas of study relevant to advancing technology, improving engineering practices, and facilitating better understanding of human factors concepts in the context of the growing development and reliance on automated or complex systems in commercial aircraft, including continuing education and training;

"(3) examine issues related to human system integration and flight crew and aircraft interfaces, in-

cluding tools and methods to support the integration of human factors considerations into the aircraft design and certification process; and

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

“(c) AVOIDING DUPLICATION OF WORK.—In developing or expanding the Center of Excellence, the Administrator shall ensure the work of the Center of Excellence does not duplicate or overlap with the work of any other established center of excellence.

“(d) MEMBER PRIORITIZATION.—

“(1) IN GENERAL.—The Administrator, when developing or expanding the Center of Excellence, shall prioritize the inclusion of subject-matter experts whose professional experience enables them to be objective and impartial in their contributions to the greatest extent possible.

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

“(3) DISCLOSURE.—Any member of the Center of Excellence who is a Boeing Company or FAA employee who participated in the certification of the Maneuvering Characteristics Augmentation System for the 737 MAX-8 airplane must disclose such involvement to the FAA prior to performing any work on behalf of the FAA.

“(4) TRANSPARENCY.—In developing or expanding the Center of Excellence, the Administrator shall develop procedures to facilitate transparency and appropriate maintenance of records to the maximum extent practicable.

“(5) COORDINATION.—Nothing in this section shall preclude coordination and collaboration between the Center of Excellence developed or expanded under this section and any other established center of excellence.

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

[For definitions of terms used in section 127 of div. V of Pub. L. 116-260, set out above, see section 137 of div. V of Pub. L. 116-260, set out as a note under section 40101 of this title.]

CENTER OF EXCELLENCE FOR AVIATION HUMAN RESOURCE RESEARCH

Pub. L. 112-95, title IX, §908, Feb. 14, 2012, 126 Stat. 140, provided that:

“(a) ESTABLISHMENT.—Using amounts made available under section 48102(a) of title 49, United States Code, the Administrator [of the Federal Aviation Administration] may establish a center of excellence to conduct research on—

“(1) human performance in the air transportation environment, including among air transportation personnel such as air traffic controllers, pilots, and technicians; and

“(2) any other aviation human resource issue pertinent to developing and maintaining a safe and efficient air transportation system.

“(b) ACTIVITIES.—Activities conducted under this section may include the following:

“(1) Research, development, and evaluation of training programs for air traffic controllers, aviation safety inspectors, airway transportation safety specialists, and engineers.

“(2) Research and development of best practices for recruitment of individuals into the aviation field for mission critical positions.

“(3) Research, in consultation with other relevant Federal agencies, to develop a baseline of general aviation employment statistics and an analysis of future needs in the aviation field.

“(4) Research and the development of a comprehensive assessment of the airframe and power plant technician certification process and its effect on employment trends.

“(5) Evaluation of aviation maintenance technician school environments.

“(6) Research and an assessment of the ability to develop training programs to allow for the transition of recently unemployed and highly skilled mechanics into the aviation field.”

§ 44514. Flight service stations

(a) HOURS OF OPERATION.—(1) The Secretary of Transportation may close, or reduce the hours of operation of, a flight service station in an area only if the service provided in the area after the closing or during the hours the station is not in operation is provided by an automated flight service station with at least model 1 equipment.

(2) The Secretary shall reopen a flight service station closed after March 24, 1987, but before July 15, 1987, as soon as practicable if the service in the area in which the station is located has not been provided since the closing by an automatic flight service station with at least model 1 equipment. The hours of operation for the reopened station shall be the same as were the hours of operation for the station on March 25, 1987. After reopening the station, the Secretary may close, or reduce the hours of operation of, the station only as provided in paragraph (1) of this subsection.

(b) MANNED AUXILIARY STATIONS.—The Secretary and the Administrator of the Federal Aviation Administration shall establish a system of manned auxiliary flight service stations. The manned auxiliary flight service stations shall supplement the services of the planned consolidation to 61 automated flight service stations under the flight service station modernization program. A manned auxiliary flight service station shall be located in an area of unique weather or operational conditions that are critical to the safety of flight.

(Pub. L. 103-272, §1(e), July 5, 1994, 108 Stat. 1183.)

HISTORICAL AND REVISION NOTES

| Revised Section | Source (U.S. Code)    | Source (Statutes at Large)   |
|-----------------|-----------------------|--|
| 44514(a) .....  | 49 App.:2224.         | Sept. 3, 1982, Pub. L. 97-248, §528, 96 Stat. 699; restated Dec. 30, 1987, Pub. L. 100-223, §113, 101 Stat. 1505.    |
| 44514(b) .....  | 49 App.:1348 (notes). | Nov. 5, 1990, Pub. L. 101-508, §9115, 104 Stat. 1388-364.<br>Nov. 5, 1990, Pub. L. 101-516, §330(a), 104 Stat. 2184. |

In subsection (a)(1), the words “On or after July 15, 1987” are omitted as obsolete.

In subsection (a)(2), the words “after December 30, 1987” are omitted as obsolete. The words “the date of” are omitted as surplus.

In subsection (b), the text of section 9115(b) of the Omnibus Budget Reconciliation Act of 1990 (Public Law 101-508, 104 Stat. 1388-364) and section 330(a) (last sentence) of the Department of Transportation and Related Agencies Appropriations Act, 1991 (Public Law 101-516, 104 Stat. 2184) is omitted as obsolete.

§ 44515. Advanced training facilities for maintenance technicians for air carrier aircraft

(a) GENERAL AUTHORITY.—The Administrator of the Federal Aviation Administration may