

- “(B) available classroom space;
 “(C) the number of available simulators;
 “(D) training requirements; and
 “(E) the number of recently placed new personnel already in training.”

CONTROLLER STAFFING

Pub. L. 116–6, div. G, title I, Feb. 15, 2019, 133 Stat. 401, provided in part: “That not later than March 31 of each fiscal year hereafter, the Administrator of the Federal Aviation Administration shall transmit to Congress an annual update to the report submitted to Congress in December 2004 pursuant to section 221 of Public Law 108–176 [set out below].”

Similar provisions were contained in the following appropriation acts:

Pub. L. 117–328, div. L, title I, Dec. 29, 2022, 136 Stat. 5102.

Pub. L. 117–103, div. L, title I, Mar. 15, 2022, 136 Stat. 691.

Pub. L. 116–260, div. L, title I, Dec. 27, 2020, 134 Stat. 1830.

Pub. L. 116–94, div. H, title I, Dec. 20, 2019, 133 Stat. 2940.

Pub. L. 115–141, div. L, title I, Mar. 23, 2018, 132 Stat. 977.

Pub. L. 115–31, div. K, title I, May 5, 2017, 131 Stat. 730.

Pub. L. 114–113, div. L, title I, Dec. 18, 2015, 129 Stat. 2839.

Pub. L. 113–235, div. K, title I, Dec. 16, 2014, 128 Stat. 2700.

Pub. L. 113–76, div. L, title I, Jan. 17, 2014, 128 Stat. 578.

Pub. L. 112–55, div. C, title I, Nov. 18, 2011, 125 Stat. 645.

Pub. L. 111–117, div. A, title I, Dec. 16, 2009, 123 Stat. 3039.

Pub. L. 111–8, div. I, title I, Mar. 11, 2009, 123 Stat. 918.

Pub. L. 110–161, div. K, title I, Dec. 26, 2007, 121 Stat. 2378.

Pub. L. 108–176, title II, §221, Dec. 12, 2003, 117 Stat. 2526, provided that:

“(a) ANNUAL REPORT.—Beginning with the submission of the Budget of the United States to the Congress for fiscal year 2005, the Administrator of the Federal Aviation Administration shall transmit a report to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Transportation and Infrastructure that describes the overall air traffic controller staffing plan, including strategies to address anticipated retirement and replacement of air traffic controllers.

“(b) HUMAN CAPITAL WORKFORCE STRATEGY.—

“(1) DEVELOPMENT.—The Administrator shall develop a comprehensive human capital workforce strategy to determine the most effective method for addressing the need for more air traffic controllers that is identified in the June 2002 report of the General Accounting Office [now Government Accountability Office].

“(2) COMPLETION DATE.—Not later than 1 year after the date of enactment of this Act [Dec. 12, 2003], the Administrator shall complete development of the strategy.

“(3) REPORT.—Not later than 30 days after the date on which the strategy is completed, the Administrator shall transmit to Congress a report describing the strategy.”

§ 44507. Regions and centers

(a) CIVIL AEROMEDICAL INSTITUTE.—The Civil Aeromedical Institute established by section 106(j) of this title may—

(1) conduct civil aeromedical research, including research related to—

(A) the protection and survival of aircraft occupants;

(B) medical accident investigation and airman medical certification;

(C) toxicology and the effects of drugs on human performance;

(D) the impact of disease and disability on human performance;

(E) vision and its relationship to human performance and equipment design;

(F) human factors of flight crews, air traffic controllers, mechanics, inspectors, airway facility technicians, and other individuals involved in operating and maintaining aircraft and air traffic control equipment; and

(G) agency work force optimization, including training, equipment design, reduction of errors, and identification of candidate tasks for automation;

(2) make comments to the Administrator of the Federal Aviation Administration on human factors aspects of proposed air safety regulations;

(3) make comments to the Administrator on human factors aspects of proposed training programs, equipment requirements, standards, and procedures for aviation personnel;

(4) advise, assist, and represent the Federal Aviation Administration in the human factors aspects of joint projects between the Administration and the National Aeronautics and Space Administration, other departments, agencies, and instrumentalities of the United States Government, industry, and governments of foreign countries; and

(5) provide medical consultation services to the Administrator about medical certification of airmen.

(b) WILLIAM J. HUGHES TECHNICAL CENTER.—The Secretary of Transportation shall define the roles and responsibilities of the William J. Hughes Technical Center in a manner that is consistent with the defined roles and responsibilities of the Civil Aeromedical Institute under subsection (a).

(Pub. L. 103–272, §1(e), July 5, 1994, 108 Stat. 1179; Pub. L. 115–254, div. B, title V, §524(a), Oct. 5, 2018, 132 Stat. 3363.)

HISTORICAL AND REVISION NOTES

Revised Section	Source (U.S. Code)	Source (Statutes at Large)
44507	49 App.1353(e).	Aug. 23, 1958, Pub. L. 85–726, 72 Stat. 731, §312(e); added Nov. 3, 1988, Pub. L. 100–591, §5(b), 102 Stat. 3013.

In clause (4), the words “departments, agencies, and instrumentalities of the United States Government” are substituted for “Government agencies” for consistency in the revised title and with other titles of the United States Code.

Editorial Notes

AMENDMENTS

2018—Pub. L. 115–254 substituted “Regions and centers” for “Civil aeromedical research” in section catchline, designated existing provisions as subsec. (a) and inserted heading, and added subsec. (b).

§ 44508. Research advisory committee

(a) ESTABLISHMENT AND DUTIES.—(1) There is a research advisory committee in the Federal Aviation Administration. The committee shall—

(A) provide advice and recommendations to the Administrator of the Federal Aviation Administration and Congress about needs, objectives, plans, approaches, content, and accomplishments of all aviation research and development activities and programs carried out, including those under sections 40119,¹ 44504, 44505, 44507, 44511–44513, and 44912 of this title;

(B) assist in ensuring that the research is coordinated with similar research being conducted outside the Administration;

(C) review the operations of the regional centers of air transportation excellence established under section 44513 of this title; and

(D) annually review the allocation made by the Administrator of the amounts authorized by section 48102(a) of this title among the major categories of research and development activities carried out by the Administration and provide advice and recommendations to the Administrator on whether such allocation is appropriate to meet the needs and objectives identified under subparagraph (A).

(2) The Administrator may establish subordinate committees to provide advice on specific areas of research conducted under sections 40119,¹ 44504, 44505, 44507, 44511–44513, and 44912 of this title.

(b) MEMBERS, CHAIRMAN, PAY, AND EXPENSES.—

(1) The committee is composed of not more than 30 members appointed by the Administrator from among individuals who are not employees of the Administration and who are specially qualified to serve on the committee because of their education, training, or experience. In appointing members of the committee, the Administrator shall ensure that the regional centers of air transportation excellence, universities, corporations, associations, consumers, and other departments, agencies, and instrumentalities of the United States Government are represented.

(2) The Administrator shall designate the chairman of the committee.

(3) A member of the committee serves without pay. However, the Administrator may allow a member, when attending meetings of the committee or a subordinate committee, expenses as authorized under section 5703 of title 5.

(c) SUPPORT STAFF, INFORMATION, AND SERVICES.—The Administrator shall provide support staff for the committee. On request of the committee, the Administrator shall provide information, administrative services, and supplies that the Administrator considers necessary for the committee to carry out its duties and powers.

(d) NONAPPLICATION.—Section 1013 of title 5 does not apply to the committee.

(e) USE AND LIMITATION OF AMOUNTS.—(1) Not more than .1 percent of the amounts made available to conduct research under sections 40119,¹ 44504, 44505, 44507, 44511–44513, and 44912 of this title may be used by the Administrator to carry out this section.

(2) A limitation on amounts available for obligation by or for the committee does not apply to amounts made available to carry out this section.

¹ See References in Text note below.

(f) WRITTEN REPLY.—

(1) IN GENERAL.—Not later than 60 days after receiving any recommendation from the research advisory committee, the Administrator shall provide a written reply to the research advisory committee that, at a minimum—

(A) clearly states whether the Administrator accepts or rejects the recommendation;

(B) explains the rationale for the Administrator’s decision;

(C) sets forth the timeframe in which the Administrator will implement the recommendation; and

(D) describes the steps the Administrator will take to implement the recommendation.

(2) TRANSPARENCY.—The written reply to the research advisory committee, when transmitted to the research advisory committee, shall be—

(A) made publicly available on the research advisory committee website; and

(B) transmitted to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate.

(3) NATIONAL AVIATION RESEARCH PLAN.—The national aviation research plan required under section 44501(c) shall include a summary of all research advisory committee recommendations and a description of the status of their implementation.

(Pub. L. 103–272, §1(e), July 5, 1994, 108 Stat. 1180; Pub. L. 104–264, title XI, §1104, Oct. 9, 1996, 110 Stat. 3279; Pub. L. 115–254, div. B, title VII, §712, Oct. 5, 2018, 132 Stat. 3410; Pub. L. 117–286, §4(a)(313), Dec. 27, 2022, 136 Stat. 4340.)

HISTORICAL AND REVISION NOTES

Revised Section	Source (U.S. Code)	Source (Statutes at Large)
44508(a)(1) ..	49 App.:1353(f)(1), (2).	Aug. 23, 1958, Pub. L. 85–726, 72 Stat. 731, §312(f); added Nov. 3, 1988, Pub. L. 100–591, §6, 102 Stat. 3013; Nov. 5, 1990, Pub. L. 101–508, §9209(b), 104 Stat. 1388–377.
44508(a)(2) ..	49 App.:1353(f)(6) (last sentence).	
44508(b)	49 App.:1353(f)(3)–(5).	
44508(c)	49 App.:1353(f)(6) (1st sentence), (7).	
44508(d)	49 App.:1353(f)(3).	
44508(e)	49 App.:1353(f)(9).	

In subsection (a)(1), before clause (A), the words “There is a” are substituted for “Not later than 180 days after November 3, 1988, the Administrator shall establish” to eliminate obsolete words. In clause (C), the words “operations of” are substituted for “research and training to be carried out by” for consistency with section 44513 of the revised title.

In subsection (a)(2), the words “to the advisory committee” are omitted as surplus.

In subsection (b)(1), the words “departments, agencies, and instrumentalities” are substituted for “agencies” for consistency in the revised title and with other titles of the United States Code.

In subsection (b)(3), the words “travel or transportation” are omitted as surplus.

In subsection (e), the words “for fiscal years beginning after September 30, 1988” are omitted as obsolete.

Editorial Notes

REFERENCES IN TEXT

Section 40119 of this title, referred to in subsecs. (a)(1)(A), (2) and (e)(1), was repealed by Pub. L. 115-254, div. K, title I, §1991(c)(3), Oct. 5, 2018, 132 Stat. 3627.

AMENDMENTS

2022—Subsec. (d). Pub. L. 117-286 substituted “Section 1013 of title 5” for “Section 14 of the Federal Advisory Committee Act (5 App. U.S.C.)”.

2018—Subsec. (a)(1)(A). Pub. L. 115-254, §712(a), amended subpar. (A) generally. Prior to amendment, subpar. (A) read as follows: “provide advice and recommendations to the Administrator of the Federal Aviation Administration about needs, objectives, plans, approaches, content, and accomplishments of the aviation research program carried out under sections 40119, 44504, 44505, 44507, 44511-44513, and 44912 of this title;”.

Subsec. (f). Pub. L. 115-254, §712(b), added subsec. (f). 1996—Subsec. (a)(1)(D). Pub. L. 104-264 added subpar. (D).

Statutory Notes and Related Subsidiaries

EFFECTIVE DATE OF 1996 AMENDMENT

Except as otherwise specifically provided, amendment by Pub. L. 104-264 applicable only to fiscal years beginning after Sept. 30, 1996, and not to be construed as affecting funds made available for a fiscal year ending before Oct. 1, 1996, see section 3 of Pub. L. 104-264, set out as a note under section 106 of this title.

§ 44509. Demonstration projects

The Secretary of Transportation may carry out under this chapter demonstration projects that the Secretary considers necessary for research and development activities under this chapter.

(Pub. L. 103-272, §1(e), July 5, 1994, 108 Stat. 1181.)

HISTORICAL AND REVISION NOTES

Revised Section	Source (U.S. Code)	Source (Statutes at Large)
44509	49 App.:2205(b)(1).	Sept. 3, 1982, Pub. L. 97-248, §506(b)(1), 96 Stat. 678; re-stated Dec. 30, 1987, Pub. L. 100-223, §105(b)(1), 101 Stat. 1490.

§ 44510. Airway science curriculum grants

(a) GENERAL AUTHORITY.—The Administrator of the Federal Aviation Administration may make competitive grant agreements with institutions of higher education having airway science curricula for the United States Government’s share of the allowable direct costs of the following categories of items to the extent that the items are in support of airway science curricula:

- (1) the construction, purchase, or lease with an option to purchase, of buildings and associated facilities.
- (2) instructional material and equipment.

(b) COST GUIDELINES.—The Administrator shall establish guidelines to determine the direct costs allowable under a grant to be made under this section. The Government’s share of the allowable cost of a project assisted by a grant under this section may not be more than 65 percent.

(Pub. L. 103-272, §1(e), July 5, 1994, 108 Stat. 1181.)

HISTORICAL AND REVISION NOTES

Revised Section	Source (U.S. Code)	Source (Statutes at Large)
44510(a)	49 App.:1354a (1st sentence).	Nov. 5, 1990, Pub. L. 101-516, (1st sentence last proviso, 3d, last sentences in par. under heading “Facilities and Equipment”), 104 Stat. 2160. Oct. 28, 1991, Pub. L. 102-143, (1st sentence last proviso, 3d, last sentences in par. under heading “Facilities and Equipment”), 105 Stat. 922. Oct. 6, 1992, Pub. L. 102-388, (1st sentence last proviso, 3d, last sentences in par. under heading “Facilities and Equipment”), 106 Stat. 1525.
44510(b)	49 App.:1354a (3d, last sentences).	

In subsection (a), before clause (1), the words “With appropriations made for the Airway Science Program, as authorized below in this section” are omitted as unnecessary because of section 48106 of the revised title.

In subsection (b), the proviso is omitted as executed.

§ 44511. Aviation research grants

(a) GENERAL AUTHORITY.—The Administrator of the Federal Aviation Administration may make grants to institutions of higher education and nonprofit research organizations to conduct aviation research in areas the Administrator considers necessary for the long-term growth of civil aviation.

(b) APPLICATIONS.—An institution of higher education or nonprofit research organization 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 the Administrator requires.

(c) SOLICITATION, REVIEW, AND EVALUATION PROCESS.—The Administrator shall establish a solicitation, review, and evaluation process that ensures—

- (1) providing grants under this section for proposals having adequate merit and relevancy to the mission of the Administration;
- (2) a fair geographical distribution of grants under this section; and
- (3) the inclusion of historically black institutions of higher education and other minority nonprofit research organizations for grant consideration under this section.

(d) RECORDS.—Each person receiving a grant under this section shall maintain records that the Administrator requires as being necessary to facilitate an effective audit and evaluation of the use of money provided under the grant.

(e) ANNUAL REPORT.—The Administrator shall submit an annual report to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate on carrying out this section.

(f) AIRPORT COOPERATIVE RESEARCH PROGRAM.—

(1) ESTABLISHMENT.—The Secretary of Transportation shall maintain an airport cooperative research program to—

- (A) identify problems that are shared by airport operating agencies and can be solved through applied research but that are not