1999—Pub. L. 106-31 substituted "August 6, 1999" for "May 31, 1999".

Pub. L. 106-6 substituted "May" for "March".

1998—Pub. L. 105-277 substituted "March 31, 1999" for "December 31, 1998".

1997—Pub. L. 105-137 substituted "December 31, 1998" for "September 30, 2002".

Pub. L. 105-85 substituted "September 30, 2002" for "September 30, 1997".

Statutory Notes and Related Subsidiaries

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.

EFFECTIVE DATE OF 2000 AMENDMENT

Amendment by Pub. L. 106–181 applicable only to fiscal years beginning after Sept. 30, 1999, see section 3 of Pub. L. 106–181, set out as a note under section 106 of this title.

EFFECTIVE DATE OF 1997 AMENDMENTS

Pub. L. 105–137, $\S5(b)$, Dec. 2, 1997, 111 Stat. 2641, provided that: "The amendment made by subsection (a) [amending this section] takes effect on October 1, 1997." Pub. L. 105–85, div. A, title X, $\S1088(b)$, Nov. 18, 1997,

Pub. L. 105-85, div. A, title X, §1088(b), Nov. 18, 1997, 111 Stat. 1921, provided that: "This section [amending this section] shall take effect as of September 30, 1997."

CONTINUATION OF AVIATION INSURANCE LAWS

Pub. L. 102–581, title IV, §404, Oct. 31, 1992, 106 Stat. 4898, provided that: "Notwithstanding any other provision of law, the provisions of title XIII of the Federal Aviation Act of 1958 [now this chapter] and all insurance policies issued by the Secretary of Transportation under such title, as in effect on September 30, 1992, shall be treated as having continued in effect until the date of the enactment of this Act [Oct. 31, 1992]."

CHAPTER 445—FACILITIES, PERSONNEL, AND RESEARCH

Sec.			
44501.	Plans and policy.		
44502.	General facilities and personnel authority.		
44503.	Reducing nonessential expenditures.		
44504.	Improved aircraft, aircraft engines, propellers, and appliances.		
44505.	Systems, procedures, facilities, and devices.		
44506.	Air traffic controllers.		
44507.	Regions and centers.		
44508.	Research advisory committee.		
44509.	Demonstration projects.		
44510.	Airway science curriculum grants.		
44511.	Aviation research grants.		
44512.	Catastrophic failure prevention research grants.		
44513.	Regional centers of air transportation excel-		
	lence.		
44514.	Flight service stations.		
44515.	Advanced training facilities for maintenance		
	technicians for air carrier aircraft.		
44516.	Human factors program.		
44517.	Program to permit cost sharing of air traffic		
	modernization projects.		
44518.	Advanced Materials Center of Excellence.		
44519.	Certification personnel continuing education		

Editorial Notes

and training.

AMENDMENTS

2020—Pub. L. 116–260, div. V, title I, 112(b), Dec. 27, 2020, 134 Stat. 2332, added item 44519.

2018—Pub. L. 115-254, div. B, title V, §524(b), title VII, §762(b), Oct. 5, 2018, 132 Stat. 3364, 3428, substituted "Re-

gions and centers" for "Civil aeromedical research" in item 44507 and added item 44518.

2003—Pub. L. 108-176, title I, §183(b), Dec. 12, 2003, 117 Stat. 2517, added item 44517.

2000—Pub. L. 106–181, title VII, $\S713(c)$, Apr. 5, 2000, 114 Stat. 161, added item 44516.

§ 44501. Plans and policy

- (a) LONG RANGE PLANS AND POLICY REQUIREMENTS.—The Administrator of the Federal Aviation Administration shall make long range plans and policy for the orderly development and use of the navigable airspace, and the orderly development and location of air navigation facilities, that will best meet the needs of, and serve the interests of, civil aeronautics and the national defense, except for needs of the armed forces that are peculiar to air warfare and primarily of military concern.
- (b) AIRWAY CAPITAL INVESTMENT PLAN.—The Administrator of the Federal Aviation Administration shall review, revise, and publish a national airways system plan, known as the Airway Capital Investment Plan, before the beginning of each fiscal year. The plan shall set forth—
 - (1) for a 10-year period, the research, engineering, and development programs and the facilities and equipment that the Administrator considers necessary for a system of airways, air traffic services, and navigation aids that will—
 - (A) meet the forecasted needs of civil aeronautics;
 - (B) meet the requirements that the Secretary of Defense establishes for the support of the national defense; and
 - (C) provide the highest degree of safety in air commerce;
 - (2) for the first and 2d years of the plan, detailed annual estimates of—
 - (A) the number, type, location, and cost of acquiring, operating, and maintaining required facilities and services;
 - (B) the cost of research, engineering, and development required to improve safety, system capacity, and efficiency; and
 - (C) personnel levels required for the activities described in subclauses (A) and (B) of this clause:
 - (3) for the 3d, 4th, and 5th years of the plan, estimates of the total cost of each major program for the 3-year period, and additional major research programs, acquisition of systems and facilities, and changes in personnel levels that may be required to meet long range objectives and that may have significant impact on future funding requirements;
 - (4) a 10-year investment plan that considers long range objectives that the Administrator considers necessary to—
 - (A) ensure that safety is given the highest priority in providing for a safe and efficient airway system; and
 - (B) meet the current and projected growth of aviation and the requirements of interstate commerce, the United States Postal Service, and the national defense; and
 - (5) a list of capital projects that are part of the Next Generation Air Transportation Sys-

tem and funded by amounts appropriated under section 48101(a).

(c) NATIONAL AVIATION RESEARCH PLAN.—(1) The Administrator of the Federal Aviation Administration shall prepare and publish annually a national aviation research plan and submit the plan to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science of the House of Representatives. The plan shall be submitted not later than the date of submission of the President's budget to Congress.

(2)(A) The plan shall describe, for a 5-year period, the research, engineering, and development that the Administrator of the Federal Aviation Administration considers necessary—

(i) to ensure the continued capacity, safety, and efficiency of aviation in the United States, considering emerging technologies and forecasted needs of civil aeronautics; and

(ii) to provide the highest degree of safety in air travel.

(B) The plan shall—

(i) provide estimates by year of the schedule, cost, and work force levels for each active and planned major research and development project under sections 40119, 14504, 44505, 44507, 44509, 44511–44513, and 44912 of this title, including activities carried out under cooperative agreements with other Federal departments and agencies;

(ii) specify the goals and the priorities for allocation of resources among the major categories of research and development activities, including the rationale for the priorities identified;

(iii) identify the allocation of resources among long-term research, near-term research, and development activities;

(iv) identify the individual research and development projects in each funding category that are described in the annual budget request:

(v) highlight the research and development activities that address specific recommendations of the research advisory committee established under section 44508 of this title, and document the recommendations of the committee that are not accepted, specifying the reasons for nonacceptance; and

(vi) highlight the research and development technology transfer activities that promote technology sharing among government, industry, and academia through the Stevenson-Wydler Technology Innovation Act of 1980.

(3) Subject to section 40119(b)¹ of this title and regulations prescribed under section 40119(b),¹ the Administrator of the Federal Aviation Administration shall submit to the committees named in paragraph (1) of this subsection an annual report on the accomplishments of the research completed during the prior fiscal year, including a description of the dissemination to the private sector of research results and a description of any new technologies developed. The report shall be submitted with the plan required under paragraph (1) and be organized to allow comparison with the plan in effect for the

prior fiscal year. The report shall be prepared in accordance with requirements of section 1116 of title 31.

(Pub. L. 103–272, §1(e), July 5, 1994, 108 Stat. 1173; Pub. L. 104–264, title XI, §1105, Oct. 9, 1996, 110 Stat. 3279; Pub. L. 104–287, §5(74), Oct. 11, 1996, 110 Stat. 3396; Pub. L. 106–181, title IX, §902(a), Apr. 5, 2000, 114 Stat. 195; Pub. L. 112–95, title I, §105, Feb. 14, 2012, 126 Stat. 17.)

HISTORICAL AND REVISION NOTES

Revised Section	Source (U.S. Code)	Source (Statutes at Large)
44501(a)	49 App.:1353(a).	Aug. 23, 1958, Pub. L. 85–726, §312(a), 72 Stat. 752.
	49 App.:1655(c)(1).	Oct. 15, 1966, Pub. L. 89–670, §6(c)(1), 80 Stat. 938; Jan. 12, 1983, Pub. L. 97–449,
44501(b)	49 App.:2203(b).	\$7(b), 96 Stat. 2444. Sept. 3, 1982, Pub. L. 97–248, \$504(b), 96 Stat. 675; Nov. 5, 1990, Pub. L. 101–508,
44501(c)	49 App.:1353(d).	\$9105(a), 104 Stat. 1388-355; Oct. 31, 1992, Pub. L. 102-581, \$114, 106 Stat. 4881, Aug. 23, 1958, Pub. L. 85-726, 72 Stat. 731, \$312(d); added Nov. 3, 1988, Pub. L. 100-591, §4(a), 102 Stat. 3011.

In subsection (a), the word "Administrator" in section 312(a) of the Federal Aviation Act of 1958 (Public Law 85-726, 72 Stat. 752) is retained on authority of 49:106(g). The words "air navigation facilities" are substituted for "landing areas, Federal airways, radar installations and all other aids and facilities for air navigation" because of the definition of "air navigation facility" in section 40102(a) of the revised title. The words "the armed forces" are substituted for "military agencies" because of 10:101.

In subsection (b), before clause (1), the words "the requirements of" are omitted as surplus. The text of 49 App.:2203(b) (1st sentence) is omitted as executed. The words "thereafter" and "For fiscal year 1991 and thereafter" are omitted as obsolete. In clauses (2)(C) and (3), the word "personnel" is substituted for "manpower" for consistency in the revised title. In clause (2)(C), the word "all" is omitted as surplus.

In subsection (c), before clause (1), the word "completed" is omitted as surplus.

In subsection (d)(1), the words "review, revise" are omitted as surplus. The word "annually" is substituted for "for fiscal year 1990, and for each fiscal year thereafter" to eliminate obsolete language.

In subsection (d)(2)(B), before clause (i), the words "an appropriation" are substituted for "funding", and in clause (ii), the word "appropriations" is substituted for "funding", for clarity and consistency in the revised title and with other titles of the United States Code.

In subsection (d)(3), the words "beginning with the date of transmission of the first aviation research plan as required by paragraph (1)" are omitted as obsolete.

Editorial Notes

REFERENCES IN TEXT

Section 40119 of this title, referred to in subsec. (c)(2)(B)(i), (3), was repealed by Pub. L. 115–254, div. K, title I, §1991(c)(3), Oct. 5, 2018, 132 Stat. 3627. The Stevenson-Wydler Technology Innovation Act of

The Stevenson-Wydler Technology Innovation Act of 1980, referred to in subsec. (c)(2)(B)(vi), is Pub. L. 96–480, Oct. 21, 1980, 94 Stat. 2311, as amended, which is classified generally to chapter 63 (§3701 et seq.) of Title 15, Commerce and Trade. For complete classification of this Act to the Code, see Short Title note set out under section 3701 of Title 15 and Tables.

AMENDMENTS

^{2012—}Subsec. (b)(5). Pub. L. 112-95 added par. (5).

2000—Subsec. (c)(2)(B)(iv) to (vi). Pub. L. 106-181, §902(a)(1), added cls. (iv) and (vi) and redesignated former cl. (iv) as (v).

Subsec. (c)(3). Pub. L. 106-181, §902(a)(2), inserted at end "The report shall be prepared in accordance with requirements of section 1116 of title 31.

1996—Subsec. (c)(1). Pub. L. 104–287 substituted "Committee on Science" for "Committee on Science, Space, and Technology'

Subsec. (c)(2)(A). Pub. L. 104–264, §1105(1), substituted

"5-year period" for "15-year period".
Subsec. (c)(2)(B). Pub. L. 104-264, §1105(2), amended subpar. (B) generally. Prior to amendment, subpar. (B) set out the requirements for research plans including specific requirements for the first two years of the plan, for the 3rd, 4th, and 5th years, and for the 6th and

subsequent years. Subsec. (c)(3). Pub. L. 104–264, §1105(3), inserted ", including a description of the dissemination to the private sector of research results and a description of any new technologies developed" after "during the prior fiscal year".

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.

FECTIVE DATE OF 2000 AMENDME

Amendment by Pub. L. 106-181 applicable only to fiscal years beginning after Sept. 30, 1999, see section 3 of Pub. L. 106-181, set out as a note under section 106 of this title.

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.

CONSOLIDATION AND REALIGNMENT OF FAA SERVICES AND FACILITIES

Pub. L. 112–95, title VIII, $\S 804$, Feb. 14, 2012, 126 Stat. 119, as amended by Pub. L. 115–254, div. B, title V, §§ 510, 545(b)(2), Oct. 5, 2018, 132 Stat. 3355, 3376, provided that: "(a) NATIONAL FACILITIES REALIGNMENT AND CONSOLI-

DATION REPORT.

'(1) IN GENERAL.—The Administrator of the Federal Aviation Administration shall develop a report, to be known as the National Facilities Realignment and Consolidation Report, in accordance with the requirements of this subsection.

"(2) PURPOSE.—The purpose of the report shall be to reduce capital, operating, maintenance, and administrative costs of the FAA where such cost reductions can be implemented without adversely affecting safe-

ty.
"(3) CONTENTS.—The report shall include-

"(A) recommendations of the Administrator on realignment and consolidation of services and facilities (including regional offices) of the FAA; and

"(B) for each of the recommendations, a description of-

'(i) the Administrator's justification;

"(ii) the projected costs and savings; and

"(iii) the proposed timing for implementation.
"(4) INPUT.—The report shall be prepared by the Administrator (or the Administrator's designee) with the participation of—

(A) representatives of labor organizations representing air traffic control system employees of the FAA: and

"(B) industry stakeholders.

"(5) SUBMISSION TO CONGRESS.—Not later than 120 days after the date of enactment of this Act [Feb. 14, 2012], the Administrator shall submit the report to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate.

'(6) PUBLIC NOTICE AND COMMENT.—The Administrator shall publish the report in the Federal Register and allow 45 days for the submission of public comments.

"(b) REPORT TO CONGRESS CONTAINING RECOMMENDA-TIONS OF ADMINISTRATOR.—Not later than 60 days after the last day of the period for public comment under subsection (a)(6), the Administrator shall submit to the committees specified in subsection (a)(5)-

'(1) a report containing the recommendations of the Administrator on realignment and consolidation of services and facilities (including regional offices)

of the FAA; and

'(2) copies of any public comments received by the

Administrator under subsection (a)(6).

"(c) REALIGNMENT AND CONSOLIDATION OF FAA SERV-ICES AND FACILITIES.—Except as provided in subsection (d), the Administrator shall realign and consolidate the services and facilities of the FAA in accordance with the recommendations included in the report submitted under subsection (b).

'(d) Congressional Disapproval.-

"(1) IN GENERAL.—The Administrator may not carry out a recommendation for realignment or consolidation of services or facilities of the FAA that is included in the report submitted under subsection (b) if a joint resolution of disapproval is enacted disapproving such recommendation before the earlier

"(A) the last day of the 30-day period beginning on the date of submission of the report; or

"(B) the adjournment of Congress sine die for the session during which the report is transmitted.

"(2) COMPUTATION OF 30-DAY PERIOD.—For purposes of paragraph (1)(A), the days on which either House of Congress is not in session because of an adjournment of more than 3 days to a day certain shall be excluded in computation of the 30-day period.

(e) MILITARY OPERATIONS EXCLUSION.-

(1) IN GENERAL.—The Administrator may not realign or consolidate a combined TRACON and tower with radar facility of the FAA under this section if, in 2015, the total annual military operations at the facility comprised at least 40 percent of the total an-

nual TRACON operations at the facility. "(2) TRACON DEFINED.—In this subsection, the term 'TRACON' means terminal radar approach control.

"(f) DEFINITIONS.—In this section, the following definitions apply:

"(1) FAA.—The term 'FAA' means the Federal Aviation Administration.

'(2) REALIGNMENT; CONSOLIDATION.—
"(A) IN GENERAL.—The terms 'realignment' and 'consolidation' include any action that-

"(i) relocates functions, services, or personnel positions;

"(ii) discontinues or severs existing facility functions or services; or

"(iii) combines the results described in clauses (i) and (ii).

"(B) EXCLUSION.—The terms do not include a reduction in personnel resulting from workload adjustments.

[Section 545(b)(2) of Pub. L. 115-254, which directed amendment of section 804 of Pub. L. 112-95, set out above, by substituting "Chief Technology Officer" for "Chief NextGen Officer" in subsec. (a)(4)(A), could not be executed because the words "Chief NextGen Officer" did not appear after the intervening amendment of subsec. (a)(4) by section 510(a)(2) of Pub. L. 115-254.]

PROGRAM AUTHORIZATIONS

Pub. L. 112-95, title IX, §901(c), Feb. 14, 2012, 126 Stat. 137, provided that: "From the other accounts described in the national aviation research plan required under section 44501(c) of title 49, United States Code, the following research and development activities are authorized.

- "(1) Runway Incursion Reduction.
- "(2) System Capacity, Planning, and Improvement.
- "(3) Operations Concept Validation.
- ``(4) NAS Weather Requirements.
- "(5) Airspace Management Program.
- "(6) NextGen—Air Traffic Control/Technical Operations Human Factors.
- "(7) NextGen—Environment and Energy—Environmental Management System and Advanced Noise and Emissions Reduction.
- "(8) NextGen—New Air Traffic Management Requirements.
- "(9) NextGen—Operations Concept Validation—Validation Modeling.
- ``(10) NextGen—System Safety Management Transformation.
- "(11) NextGen—Wake Turbulence—Recategorization.
 - "(12) NextGen—Operational Assessments.
- "(13) NextGen—Staffed NextGen Towers.
- "(14) Center for Advanced Aviation System Development.
- "(15) Airports Technology Research Program—Capacity.
- "(16) Airports Technology Research Program—Safe-
- ty. ``(17) Airports Technology Research Program—Environment.
 - "(18) Airport Cooperative Research—Capacity.
- "(19) Airport Cooperative Research—Environment.
- "(20) Airport Cooperative Research—Safety."

§ 44502. General facilities and personnel authority

- (a) GENERAL AUTHORITY.—(1) The Administrator of the Federal Aviation Administration may—
 - (A) acquire, establish, improve, operate, and maintain air navigation facilities; and
 - (B) provide facilities and personnel to regulate and protect air traffic.
- (2) The cost of site preparation work associated with acquiring, establishing, or improving an air navigation facility under paragraph (1)(A) of this subsection shall be charged to amounts available for that purpose appropriated under section 48101(a) of this title. The Secretary of Transportation may make an agreement with an airport owner or sponsor (as defined in section 47102 of this title) so that the owner or sponsor will provide the work and be paid or reimbursed by the Secretary from the appropriated amounts
- (3) The Secretary of Transportation may authorize a department, agency, or instrumentality of the United States Government to carry out any duty or power under this subsection with the consent of the head of the department, agency, or instrumentality.
- (4) PURCHASE OF INSTRUMENT LANDING SYSTEM
 - (A) ESTABLISHMENT OF PROGRAM.—The Secretary shall purchase precision approach instrument landing system equipment for installation at airports on an expedited basis.
 - (B) AUTHORIZATION.—No less than \$30,000,000 of the amounts appropriated under section 48101(a) for each of fiscal years 2000 through 2002 shall be used for the purpose of carrying out this paragraph, including acquisition

- under new or existing contracts, site preparation work, installation, and related expenditures
- (5) IMPROVEMENTS ON LEASED PROPERTIES.—The Administrator may make improvements to real property leased for no or nominal consideration for an air navigation facility, regardless of whether the cost of making the improvements exceeds the cost of leasing the real property, if—
 - (A) the improvements primarily benefit the Government:
 - (B) the improvements are essential for accomplishment of the mission of the Federal Aviation Administration; and
- (C) the interest of the United States Government in the improvements is protected.
- (b) CERTIFICATION OF NECESSITY.—Except for Government money expended under this part or for a military purpose, Government money may be expended to acquire, establish, construct, operate, repair, alter, or maintain an air navigation facility only if the Administrator of the Federal Aviation Administration certifies in writing that the facility is reasonably necessary for use in air commerce or for the national defense. An interested person may apply for a certificate for a facility to be acquired, established, constructed, operated, repaired, altered, or maintained by or for the person.
- (c) Ensuring Conformity With Plans and Policies.—(1) To ensure conformity with plans and policies for, and allocation of, airspace by the Administrator of the Federal Aviation Administration under section 40103(b)(1) of this title, a military airport, military landing area, or missile or rocket site may be acquired, established, or constructed, or a runway may be altered substantially, only if the Administrator of the Federal Aviation Administration is given reasonable prior notice so that the Administrator of the Federal Aviation Administration may advise the appropriate committees of Congress and interested departments, agencies, and instrumentalities of the Government on the effect of the acquisition, establishment, construction, or alteration on the use of airspace by aircraft. A disagreement between the Administrator of the Federal Aviation Administration and the Secretary of Defense or the Administrator of the National Aeronautics and Space Administration may be appealed to the President for a final decision.
- (2) To ensure conformity, an airport or landing area not involving the expenditure of Government money may be established or constructed, or a runway may be altered substantially, only if the Administrator of the Federal Aviation Administration is given reasonable prior notice so that the Administrator may provide advice on the effects of the establishment, construction, or alteration on the use of airspace by aircraft.
- (d) Public Use and Emergency Assistance.—
 (1) The head of a department, agency, or instrumentality of the Government having jurisdiction over an air navigation facility owned or operated by the Government may provide, under regulations the head of the department, agency, or instrumentality prescribes, for public use of the facility.
- (2) The head of a department, agency, or instrumentality of the Government having juris-