ment, text read as follows: "The Administrator shall establish a scientific advisory panel, as a subcommittee of the Research, Engineering and Development Advisory Committee, to review, comment on, advise on the progress of, and recommend modifications in, the program established under subsection (a) of this section, including the need for long-range research programs to detect and prevent catastrophic damage to commercial aircraft by the next generation of terrorist weapons. The panel shall consist of individuals with scientific and technical expertise in—

"(1) the development and testing of effective explosive detection systems;

"(2) aircraft structure and experimentation to decide on the type and minimum weights of explosives that an effective technology must be capable of detecting;

"(3) technologies involved in minimizing airframe damage to aircraft from explosives; and

"(4) other scientific and technical areas the Administrator considers appropriate."

TRANSFER OF FUNCTIONS

For transfer of functions, personnel, assets, and liabilities of the Transportation Security Administration of the Department of Transportation, including the functions of the Secretary of Transportation, and of the Under Secretary of Transportation for Security, relating thereto, to the Secretary of Homeland Security, and for treatment of related references, see sections 203(2), 551(d), 552(d), and 557 of Title 6, Domestic Security, and the Department of Homeland Security Reorganization Plan of November 25, 2002, as modified, set out as a note under section 542 of Title 6.

RESEARCH AND DEVELOPMENT OF AVIATION SECURITY TECHNOLOGY

Pub. L. 107-71, title I, §137, Nov. 19, 2001, 115 Stat. 637, as amended by Pub. L. 110-53, title XVI, §1608, Aug. 3, 2007, 121 Stat. 484, provided that:

2007, 121 Stat. 484, provided that:

"(a) FUNDING.—To augment the programs authorized in section 44912(a)(1) of title 49, United States Code, there is authorized to be appropriated an additional \$50,000,000 for each of fiscal years 2006 through 2011 and such sums as are necessary for each fiscal year thereafter to the Transportation Security Administration, for research, development, testing, and evaluation of the following technologies which may enhance transportation security in the future. Grants to industry, academia, and Government entities to carry out the provisions of this section shall be available for fiscal years 2006 through 2011 for—

"(1) the acceleration of research, development, testing, and evaluation of explosives detection technology for checked baggage, specifically, technology that is—

"(A) more cost-effective for deployment for explosives detection in checked baggage at small- to medium-sized airports, and is currently under development as part of the Argus research program at the Transportation Security Administration;

"(B) faster, to facilitate screening of all checked baggage at larger airports; or

"(C) more accurate, to reduce the number of false positives requiring additional security measures:

"(2) acceleration of research, development, testing, and evaluation of new screening technology for carry-on items to provide more effective means of detecting and identifying weapons, explosives, and components of weapons of mass destruction, including advanced x-ray technology;

"(3) acceleration of research, development, testing, and evaluation of threat screening technology for other categories of items being loaded onto aircraft, including cargo, catering, and duty-free items:

"(4) acceleration of research, development, testing, and evaluation of threats carried on persons boarding aircraft or entering secure areas, including detection of weapons, explosives, and components of weapons of mass destruction:

"(5) acceleration of research, development, testing and evaluation of integrated systems of airport security enhancement, including quantitative methods of assessing security factors at airports selected for testing such systems;

"(6) expansion of the existing program of research, development, testing, and evaluation of improved methods of education, training, and testing of key airport security personnel; and

"(7) acceleration of research, development, testing, and evaluation of aircraft hardening materials, and techniques to reduce the vulnerability of aircraft to terrorist attack.

"(b) GRANTS.—Grants awarded under this subtitle [probably should be "this section"] shall identify potential outcomes of the research, and propose a method for quantitatively assessing effective increases in security upon completion of the research program. At the conclusion of each grant, the grant recipient shall submit a final report to the Transportation Security Administration that shall include sufficient information to permit the Under Secretary of Transportation for Security to prepare a cost-benefit analysis of potential improvements to airport security based upon deployment of the proposed technology. The Under Secretary shall begin awarding grants under this subtitle within 90 days of the date of enactment of this Act [Nov. 19, 2001].

"(c) BUDGET SUBMISSION.—A budget submission and detailed strategy for deploying the identified security upgrades recommended upon completion of the grants awarded under subsection (b), shall be submitted to Congress as part of the Department of Transportation's annual budget submission.

"(d) DEFENSE RESEARCH.—There is authorized to be appropriated \$20,000,000 to the Transportation Security Administration to issue research grants in conjunction with the Defense Advanced Research Projects Agency. Grants may be awarded under this section for—

"(1) research and development of longer-term improvements to airport security, including advanced weapons detection:

"(2) secure networking and sharing of threat information between Federal agencies, law enforcement entities, and other appropriate parties;

"(3) advances in biometrics for identification and threat assessment; or

 $\lq\lq(4)$ other technologies for preventing acts of terrorism in aviation. $\lq\lq$

[For definitions of terms used in section 137 of Pub. L. 107–71, set out above, see section 133 of Pub. L. 107–71, set out as a note under section 40102 of this title.]

TERMINATION OF ADVISORY PANELS

Advisory panels established after Jan. 5, 1973, to terminate not later than expiration of 2-year period beginning on the date of their establishment, unless, in the case of a panel established by the President or an officer of the Federal Government, such panel is renewed by appropriate action prior to expiration of such 2-year period, or in the case of a panel established by Congress, its duration is otherwise provided for by law. See sections 3(2) and 14 of Pub. L. 92–463, Oct. 6, 1972, 86 Stat. 770, 776, set out in the Appendix to Title 5, Government Organization and Employees.

§ 44913. Explosive detection

(a) DEPLOYMENT AND PURCHASE OF EQUIPMENT.—(1) A deployment or purchase of explosive detection equipment under section 108.7(b)(8) or 108.20 of title 14, Code of Federal Regulations, or similar regulation is required only if the Under Secretary of Transportation for Security certifies that the equipment alone, or as part of an integrated system, can detect under realistic air carrier operating conditions the amounts, configurations, and types of explosive material that would likely be used to cause

catastrophic damage to commercial aircraft. The Under Secretary shall base the certification on the results of tests conducted under protocols developed in consultation with expert scientists outside of the Transportation Security Administration. Those tests shall be completed not later than April 16, 1992.

(2) Before completion of the tests described in paragraph (1) of this subsection, but not later than April 16, 1992, the Under Secretary may require deployment of explosive detection equipment described in paragraph (1) if the Under Secretary decides that deployment will enhance aviation security significantly. In making that decision, the Under Secretary shall consider factors such as the ability of the equipment alone, or as part of an integrated system, to detect under realistic air carrier operating conditions the amounts, configurations, and types of explosive material that would likely be used to cause catastrophic damage to commercial aircraft. The Under Secretary shall notify the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives of a deployment decision made under this paragraph.

(3) Until such time as the Under Secretary determines that equipment certified under paragraph (1) is commercially available and has successfully completed operational testing as provided in paragraph (1), the Under Secretary shall facilitate the deployment of such approved commercially available explosive detection devices as the Under Secretary determines will enhance aviation security significantly. The Under Secretary shall require that equipment deployed under this paragraph be replaced by equipment certified under paragraph (1) when equipment certified under paragraph (1) becomes commercially available. The Under Secretary is authorized, based on operational considerations at individual airports, to waive the required installation of commercially available equipment under paragraph (1) in the interests of aviation security. The Under Secretary may permit the requirements of this paragraph to be met at airports by the deployment of dogs or other appropriate animals to supplement equipment for screening passengers, baggage, mail, or cargo for explosives or weapons.

(4) This subsection does not prohibit the Under Secretary from purchasing or deploying explosive detection equipment described in paragraph (1) of this subsection.

(b) GRANTS.—The Secretary of Transportation may provide grants to continue the Explosive Detection K-9 Team Training Program to detect explosives at airports and on aircraft.

(Pub. L. 103–272, $\S1(e)$, July 5, 1994, 108 Stat. 1214; Pub. L. 104–264, title III, $\S305(a)$, Oct. 9, 1996, 110 Stat. 3252; Pub. L. 104–287, $\S5(9)$, Oct. 11, 1996, 110 Stat. 3389; Pub. L. 107–71, title I, $\S101(f)(2)$, (7), (9), Nov. 19, 2001, 115 Stat. 603.)

HISTORICAL AND REVISION NOTES

Revised Section	Source (U.S. Code)	Source (Statutes at Large)
44913(a)(1)	49 App.:1358c(a), (b).	Aug. 23, 1958, Pub. L. 85–726, 72 Stat. 731, §320; added Nov. 16, 1990, Pub. L. 101–604, §108, 104 Stat. 3077.

HISTORICAL AND REVISION NOTES—CONTINUED

Revised Section	Source (U.S. Code)	Source (Statutes at Large)
44913(a)(3)	49 App.:1358c(c). 49 App.:1358c(d). 49 App.:2225.	Sept. 3, 1982, Pub. L. 97–248, §529, 96 Stat. 699; Dec. 30, 1987, Pub. L. 100–223, §114, 101 Stat. 1505.

In subsection (a), the words "after November 16, 1990" are omitted as executed. The words "The Administrator shall base the certification on" are substituted for "based on" because of the restatement.

In subsection (b), the words "but not be limited to" are omitted as unnecessary.

AMENDMENTS

2001—Subsec. (a)(1). Pub. L. 107-71, $\S101(f)(9)$, substituted "of Transportation for Security" for "of the Federal Aviation Administration".

Pub. L. 107-71, §101(f)(7), substituted "Under Secretary" for "Administrator" in two places.

Pub. L. 107-71, §101(f)(2), substituted "of the Transportation Security Administration" for "of the Administration" in second sentence.

Subsec. (a)(2) to (4). Pub. L. 107-71, \$101(f)(7), substituted "Under Secretary" for "Administrator" wherever appearing.

1996—Subsec. (a)(2). Pub. L. 104–287 substituted "Transportation and Infrastructure" for "Public Works and Transportation".

Subsec. (a)(3), (4). Pub. L. 104-264 added par. (3) and redesignated former par. (3) as (4).

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.

TRANSFER OF FUNCTIONS

For transfer of functions, personnel, assets, and liabilities of the Transportation Security Administration of the Department of Transportation, including the functions of the Secretary of Transportation, and of the Under Secretary of Transportation for Security, relating thereto, to the Secretary of Homeland Security, and for treatment of related references, see sections 203(2), 551(d), 552(d), and 557 of Title 6, Domestic Security, and the Department of Homeland Security Reorganization Plan of November 25, 2002, as modified, set out as a note under section 542 of Title 6.

IMPROVED EXPLOSIVE DETECTION SYSTEMS

Pub. L. 108–458, title IV, \$4024, Dec. 17, 2004, 118 Stat. 3724, provided that:

"(a) PLAN AND GUIDELINES.—The Assistant Secretary of Homeland Security (Transportation Security Administration) shall develop a plan and guidelines for implementing improved explosive detection system equipment.

"(b) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary of Homeland Security for the use of the Transportation Security Administration \$100,000,000, in addition to any amounts otherwise authorized by law, for the purpose of research and development of improved explosive detection systems for aviation security under section 44913 of title 49, United States Code."

WEAPONS AND EXPLOSIVE DETECTION STUDY

Pub. L. 104-264, title III, §303, Oct. 9, 1996, 110 Stat. 3250, provided that:

"(a) IN GENERAL.—The Administrator of the Federal Aviation Administration shall enter into an arrangement with the Director of the National Academy of Sciences (or if the National Academy of Sciences is not available, the head of another equivalent entity) to conduct a study in accordance to this section.

"(b) Panel of Experts.—

- "(1) IN GENERAL.—In carrying out a study under this section, the Director of the National Academy of Sciences (or the head of another equivalent entity) shall establish a panel (hereinafter in this section referred to as the 'panel').
- "(2) EXPERTISE.—Each member of the panel shall have expertise in weapons and explosive detection technology, security, air carrier and airport operations, or another appropriate area. The Director of the National Academy of Sciences (or the head of another equivalent entity) shall ensure that the panel has an appropriate number of representatives of the areas specified in the preceding sentence.
- "(c) STUDY.—The panel, in consultation with the National Science and Technology Council, representatives of appropriate Federal agencies, and appropriate members of the private sector, shall—
 - "(1) assess the weapons and explosive detection technologies that are available at the time of the study that are capable of being effectively deployed in commercial aviation;
- "(2) determine how the technologies referred to in paragraph (1) may more effectively be used for promotion and improvement of security at airport and aviation facilities and other secured areas;
- "(3) assess the cost and advisability of requiring hardened cargo containers as a way to enhance aviation security and reduce the required sensitivity of bomb detection equipment; and
- "(4) on the basis of the assessments and determinations made under paragraphs (1), (2), and (3), identify the most promising technologies for the improvement of the efficiency and cost-effectiveness of weapons and explosive detection.
- "(d) COOPERATION.—The National Science and Technology Council shall take such actions as may be necessary to facilitate, to the maximum extent practicable and upon request of the Director of the National Academy of Sciences (or the head of another equivalent entity), the cooperation of representatives of appropriate Federal agencies, as provided for in subsection (c), in providing the panel, for the study under this section—
 - "(1) expertise; and
 - "(2) to the extent allowable by law, resources and facilities.
- "(e) REPORTS.—The Director of the National Academy of Sciences (or the head of another equivalent entity) shall, pursuant to an arrangement entered into under subsection (a), submit to the Administrator such reports as the Administrator considers to be appropriate. Upon receipt of a report under this subsection, the Administrator shall submit a copy of the report to the appropriate committees of Congress.
- "(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated for each of fiscal years 1997 through 2001 such sums as may be necessary to carry out this section."

§ 44914. Airport construction guidelines

In consultation with air carriers, airport authorities, and others the Under Secretary of Transportation for Security considers appropriate, the Under Secretary shall develop guidelines for airport design and construction to allow for maximum security enhancement. In developing the guidelines, the Under Secretary shall consider the results of the assessment carried out under section 44904(a) of this title.

(Pub. L. 103-272, §1(e), July 5, 1994, 108 Stat. 1214; Pub. L. 107-71, title I, §101(f)(7), (9), Nov. 19, 2001, 115 Stat. 603.)

HISTORICAL AND REVISION NOTES

Revised Section	Source (U.S. Code)	Source (Statutes at Large)
44914	49 App.:1357 (note). 49 App.:1432(d).	Nov. 16, 1990, Pub. L. 101-604, §106(f), 104 Stat. 3075. Aug. 23, 1958, Pub. L. 85-726, 72 Stat. 731, §612(d); added Nov. 16, 1990, Pub. L. 101-604, §110(a), 104 Stat. 3080.

The words "In developing the guidelines" are substituted for "In developing airport construction guidelines under subsection (d) of section 612 of the Federal Aviation Act of 1958, as added by section 110 of this Act" in section 106(f) of the Aviation Security Improvement Act of 1990 (Public Law 101-604, 104 Stat. 3075) to eliminate unnecessary words.

AMENDMENTS

2001—Pub. L. 107-71 substituted "Under Secretary" for "Administrator" wherever appearing and "of Transportation for Security" for "of the Federal Aviation Administration".

TRANSFER OF FUNCTIONS

For transfer of functions, personnel, assets, and liabilities of the Transportation Security Administration of the Department of Transportation, including the functions of the Secretary of Transportation, and of the Under Secretary of Transportation for Security, relating thereto, to the Secretary of Homeland Security, and for treatment of related references, see sections 203(2), 551(d), 552(d), and 557 of Title 6, Domestic Security, and the Department of Homeland Security Reorganization Plan of November 25, 2002, as modified, set out as a note under section 542 of Title 6.

§ 44915. Exemptions

The Under Secretary of Transportation for Security may exempt from sections 44901, 44903(a)–(c) and (e), 44906, 44935, and 44936 of this title airports in Alaska served only by air carriers that—

- (1) hold certificates issued under section 41102 of this title;
- (2) operate aircraft with certificates for a maximum gross takeoff weight of less than 12,500 pounds; and
- (3) board passengers, or load property intended to be carried in an aircraft cabin, that will be screened under section 44901 of this title at another airport in Alaska before the passengers board, or the property is loaded on, an aircraft for a place outside Alaska.

(Pub. L. 103–272, §1(e), July 5, 1994, 108 Stat. 1215; Pub. L. 107–71, title I, §101(f)(7), (9), Nov. 19, 2001, 115 Stat. 603.)

HISTORICAL AND REVISION NOTES

Revised Section	Source (U.S. Code)	Source (Statutes at Large)
44915	49 App.:1358.	Aug. 23, 1958, Pub. L. 85–726, 72 Stat. 731, §317; added July 12, 1976, Pub. L. 94–353, §17(a), 90 Stat. 882.

In clause (1), the word "issued" is substituted for "granted" for consistency in this part. The words "by the Civil Aeronautics Board" are omitted as surplus.

Clause (3) is substituted for 49 App.:1358 (words after 3d comma) for consistency in the revised title.

AMENDMENTS

2001—Pub. L. 107–71 substituted "Under Secretary of Transportation for Security" for "Administrator of the