and struck out subsec. (b) which authorized to be appropriated to the Secretary of Energy such sums as necessary to carry out this section.

Par. (1). Pub. L. 114–329, §105(*l*)(2), substituted ''networking and information technology'' for ''high-performance computing and networking''.

Par. (2)(A). Pub. L. 114–329, §105(*l*)(3), substituted ''high-end'' for ''high-performance''.

2005—Pub. L. 109–58 reenacted section catchline without change and amended text generally, substituting provisions relating to general responsibilities and authorization of appropriations for provisions relating to general responsibilities, establishment of High-Performance Computing Research and Development Collaborative Consortia, transfer of technology to private sector and others, reports on activities, and authorization of appropriations.

1995—Subsec. (d). Pub. L. 104–66 amended heading and text of subsec. (d) generally. Prior to amendment, text read as follows: ''Within one year after December 9, 1991, and every year thereafter, the Secretary of Energy shall transmit to the Congress a report on activities taken to carry out this chapter.''

§ 5524. Department of Commerce activities

(a) General responsibilities

As part of the Program described in subchapter I—

(1) the National Institute of Standards and Technology shall—

(A) conduct basic and applied measurement research needed to support various networking and information technology systems and capabilities;

(B) develop and propose standards and guidelines, and develop measurement techniques and test methods, for the interoperability and usability of networking and information technology systems; and

(C) be responsible for developing benchmark tests and standards for networking and information technology systems and software; and

(2) the National Oceanic and Atmospheric Administration shall conduct basic and applied research in weather prediction and ocean sciences, particularly in development of new forecast models, in computational fluid dynamics, and in the incorporation of evolving computer architectures and networks into the systems that carry out agency missions.

(b) Networking and information technology security

The National Institute of Standards and Technology shall be responsible for developing and proposing standards and guidelines needed to assure the cost-effective security and privacy of Federal agency information and information systems.

(Pub. L. 102–194, title II, §204, Dec. 9, 1991, 105 Stat. 1601; Pub. L. 114–329, title I, §105(m), Jan. 6, 2017, 130 Stat. 2984.)

AMENDMENTS

2017—Subsec. (a)(1)(A). Pub. L. 114–329, §105(m)(1)(A), substituted ''networking and information technology systems and capabilities'' for ''high-performance computing systems and networks''.

Subsec. (a)(1)(B). Pub. L. 114–329, §105(m)(1)(B), substituted ''interoperability and usability of networking and information technology systems'' for ''interoperability of high-performance computing systems in networks and for common user interfaces to systems''.

Subsec. (a)(1)(C). Pub. L. 114–329, §105(m)(1)(C), substituted ''networking and information technology'' for ''high-performance computing''.

Subsec. (b). Pub. L. 114–329, §105(m)(2), in heading, substituted ''Networking and information technology'' for ''High-performance computing and network'' and, in text, substituted ''The National Institute'' for ''Pursuant to the Computer Security Act of 1987 (Public Law 100–235; 101 Stat. 1724), the National Institute'' and ''Federal agency information and information systems'' for ''sensitive information in Federal computer systems''.

Subsecs. (c), (d). Pub. L. 114–329, §105(m)(3), struck out subsecs. (c) and (d) which required a study of the impact of Federal procurement regulations and authorized appropriations for fiscal years 1992 to 1996.

§ 5525. Repealed. Pub. L. 114–329, title I, § 105(n), Jan. 6, 2017, 130 Stat. 2984

Section, Pub. L. 102–194, title II, §205, Dec. 9, 1991, 105 Stat. 1602, described Environmental Protection Agency activities and authorized appropriations for fiscal years 1992 to 1996.

§ 5526. Repealed. Pub. L. 114–329, title I, § 105(*o*), Jan. 6, 2017, 130 Stat. 2984

Section, Pub. L. 102–194, title II, §206, Dec. 9, 1991, 105 Stat. 1602, described the role of the Department of Education and authorized appropriations for fiscal years 1992 to 1996.

§ 5527. Miscellaneous provisions

(a) Nonapplicability

Except to the extent the appropriate Federal agency or department head determines, the provisions of this chapter shall not apply to—

(1) programs or activities regarding computer systems that process classified information; or

(2) computer systems the function, operation, or use of which are those delineated in section 3552(b)(6)(A)(i) of title 44.

(b) Acquisition of prototype and early production models

In accordance with Federal contracting law, Federal agencies and departments participating in the Program may acquire prototype or early production models of new networking and information technology systems and subsystems to stimulate hardware and software development. Items of computing equipment acquired under this subsection shall be considered research computers for purposes of applicable acquisition regulations.

(Pub. L. 102–194, title II, §207, Dec. 9, 1991, 105 Stat. 1602; Pub. L. 114–329, title I, §105(p), Jan. 6, 2017, 130 Stat. 2984.)

AMENDMENTS

2017—Subsec. (a)(2). Pub. L. 114–329, §105(p)(1), substituted ''section 3552(b)(6)(A)(i) of title 44'' for ''paragraphs (1) through (5) of section 2315(a) of title 10''.

Subsec. (b). Pub. L. 114–329, §105(p)(2), substituted ''networking and information technology'' for ''high-performance computing''.

§ 5528. Repealed. Pub. L. 114–329, title I, § 105(q), Jan. 6, 2017, 130 Stat. 2984

Section, Pub. L. 102–194, title II, §208, Dec. 9, 1991, 105 Stat. 1603; Pub. L. 110–69, title III, §3002(c)(6), Aug. 9, 2007, 121 Stat. 587, related to findings and annual reports for fostering United States competitiveness in high-performance computing and related activities.

SUBCHAPTER III—DEPARTMENT OF ENERGY HIGH-END COMPUTING REVITALIZATION

§ 5541. Definitions

In this subchapter:

(1) Center

The term ''Center'' means a High-End Software Development Center established under section 5542(d) of this title.

(2) High-end computing system

The term ''high-end computing system'' means a computing system with performance that substantially exceeds that of systems that are commonly available for advanced scientific and engineering applications.

(3) Leadership System

The term ''Leadership System'' means a high-end computing system that is among the most advanced in the world in terms of performance in solving scientific and engineering problems.

(4) Institution of higher education

The term ''institution of higher education'' has the meaning given the term in section 1001(a) of title 20.

(5) Secretary

The term ''Secretary'' means the Secretary of Energy, acting through the Director of the Office of Science of the Department of Energy.

(Pub. L. 108–423, § 2, Nov. 30, 2004, 118 Stat. 2400.)

§ 5542. Department of Energy high-end computing research and development program

(a) In general

The Secretary shall—

(1) carry out a program of research and development (including development of software and hardware) to advance high-end computing systems; and

(2) develop and deploy high-end computing systems for advanced scientific and engineering applications.

(b) Program

The program shall—

(1) support both individual investigators and multidisciplinary teams of investigators;

(2) conduct research in multiple architectures, which may include vector, reconfigurable logic, streaming, processor-in-memory, and multithreading architectures;

(3) conduct research on software for high-end computing systems, including research on algorithms, programming environments, tools, languages, and operating systems for high-end computing systems, in collaboration with architecture development efforts;

(4) provide for sustained access by the research community in the United States to high-end computing systems and to Leadership Systems, including provision of technical support for users of such systems;

(5) support technology transfer to the private sector and others in accordance with applicable law; and

(6) ensure that the high-end computing activities of the Department of Energy are coordinated with relevant activities in industry and with other Federal agencies, including the National Science Foundation, the Defense Advanced Research Projects Agency, the National Nuclear Security Administration, the National Security Agency, the National Institutes of Health, the National Aeronautics and Space Administration, the National Oceanic and Atmospheric Administration, the National Institutes of Standards and Technology, and the Environmental Protection Agency.

(c) Leadership Systems facilities

(1) In general

As part of the program carried out under this subchapter, the Secretary shall establish and operate 1 or more Leadership Systems facilities to—

(A) conduct advanced scientific and engineering research and development using Leadership Systems; and

(B) develop potential advancements in high-end computing system hardware and software.

(2) Administration

In carrying out this subsection, the Secretary shall provide to Leadership Systems, on a competitive, merit-reviewed basis, access to researchers in United States industry, institutions of higher education, national laboratories, and other Federal agencies.

(d) High-End Software Development Center

(1) In general

As part of the program carried out under this subchapter, the Secretary shall establish at least 1 High-End Software Development Center.

(2) Duties

A Center shall concentrate efforts to develop, test, maintain, and support optimal algorithms, programming environments, tools, languages, and operating systems for high-end computing systems.

(3) Proposals

In soliciting proposals for the Center, the Secretary shall encourage staffing arrangements that include both permanent staff and a rotating staff of researchers from other insti-