

106TH CONGRESS
2D SESSION

S. 2573

To coordinate and facilitate the development by the Department of Defense of directed energy technologies, systems, and weapons, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MAY 17, 2000

Mr. DOMENICI introduced the following bill; which was read twice and referred to the Committee on Armed Services

A BILL

To coordinate and facilitate the development by the Department of Defense of directed energy technologies, systems, and weapons, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Directed Energy
5 Coordination and Consolidation Act of 2000”.

6 **SEC. 2. COORDINATION AND FACILITATION OF DEVELOP-**
7 **MENT OF DIRECTED ENERGY TECH-**
8 **NOLOGIES, SYSTEMS, AND WEAPONS.**

9 (a) FINDINGS.—Congress makes the following find-
10 ings:

1 (1) Directed energy systems are available to ad-
2 dress many current challenges with respect to mili-
3 tary weapons, including offensive weapons and de-
4 fensive weapons.

5 (2) Directed energy weapons offer the potential
6 to maintain an asymmetrical technological edge over
7 adversaries of the United States for the foreseeable
8 future.

9 (3) It is in the national interest that funding
10 for directed energy science and technology programs
11 be increased in order to support priority acquisition
12 programs and to develop new technologies for future
13 applications.

14 (4) It is in the national interest that the level
15 of funding for directed energy science and tech-
16 nology programs correspond to the level of funding
17 for such large-scale demonstration programs in
18 order to ensure the growth of directed energy science
19 and technology programs and to ensure the success-
20 ful development of other weapons systems utilizing
21 directed energy systems.

22 (5) The industrial base for several critical di-
23 rected energy technologies is in fragile condition and
24 lacks appropriate incentives to make the large-scale
25 investments that are necessary to address current

1 and anticipated Department of Defense require-
2 ments for such technologies.

3 (6) It is in the national interest that the De-
4 partment of Defense utilize and expand upon di-
5 rected energy research currently being conducted by
6 the Department of Energy, other Federal agencies,
7 the private sector, and academia.

8 (7) It is increasingly difficult for the Federal
9 Government to recruit and retain personnel with
10 skills critical to directed energy technology develop-
11 ment.

12 (8) The implementation of the recommenda-
13 tions contained in the High Energy Laser Master
14 Plan of the Department of Defense will address
15 these critical issues and is in the national interest.

16 (9) Implementation of the management struc-
17 ture outlined in the Master Plan will facilitate the
18 development of revolutionary capabilities in directed
19 energy weapons by achieving a coordinated and fo-
20 cused investment strategy under a new management
21 structure featuring a joint technology office with
22 senior-level oversight provided by a technology coun-
23 cil and a board of directors.

24 (b) COORDINATION AND OVERSIGHT UNDER HIGH
25 ENERGY LASER MASTER PLAN.—(1) Subchapter II of

1 Chapter 8 of title 10, United States Code, is amended by
2 adding at the end the following new section:

3 **“§ 204. Joint Technology Office**

4 “(a) ESTABLISHMENT.—(1) There is in the Depart-
5 ment of Defense a Joint Technology Office (in this section
6 referred to as the ‘Office’).

7 “(2) The Office shall be part of the National Directed
8 Energy Center at Kirtland Air Force Base, New Mexico.

9 “(3) The Office shall be under the authority, direc-
10 tion, and control of the Deputy Under Secretary of De-
11 fense for Science and Technology.

12 “(b) STAFF.—(1) The head of the Office shall be a
13 civilian employee of the Department of Defense in the
14 Senior Executive Service who is designated by the Sec-
15 retary of Defense for that purpose. The head of the Office
16 shall be known as the ‘Director of the Joint Technology
17 Office’.

18 “(2) The Secretary of Defense shall provide the Of-
19 fice such civilian and military personnel and other re-
20 sources as are necessary to permit the Office to carry out
21 its duties under this section.

22 “(c) DUTIES.—The duties of the Office shall be to—

23 “(1) develop and oversee the management of a
24 Department of Defense-wide program of science and

1 technology relating to directed energy technologies,
2 systems, and weapons;

3 “(2) serve as a point of coordination for initia-
4 tives for science and technology relating to directed
5 energy technologies, systems, and weapons from
6 throughout the Department of Defense;

7 “(3) develop and manage a program (to be
8 known as the ‘National Directed Energy Technology
9 Alliance’) to foster the exchange of information and
10 cooperative activities on directed energy technologies,
11 systems, and weapons between and among the De-
12 partment of Defense, other Federal agencies, institu-
13 tions of higher education, and the private sector;
14 and

15 “(4) carry out such other activities relating to
16 directed energy technologies, systems, and weapons
17 as the Deputy Under Secretary of Defense for
18 Science and Technology considers appropriate.

19 “(d) COORDINATION WITHIN DEPARTMENT OF DE-
20 FENSE.—(1) The Director of the Office shall assign to ap-
21 propriate personnel of the Office the performance of liai-
22 son functions with the other Defense Agencies and with
23 the military departments.

24 “(2) The head of each military department and De-
25 fense Agency having an interest in the activities of the

1 Office shall assign personnel of such department or De-
2 fense Agency to assist the Office in carrying out its duties.
3 In providing such assistance, such personnel shall be
4 known collectively as ‘Technology Area Working Groups’.

5 “(e) TECHNOLOGY COUNCIL.—(1) There is estab-
6 lished in the Department of Defense a council to be known
7 as the ‘Technology Council’ (in this section referred to as
8 the ‘Council’).

9 “(2) The Council shall be composed of 7 members
10 as follows:

11 “(A) The Deputy Under Secretary of Defense
12 for Science and Technology, who shall be chair-
13 person of the Council.

14 “(B) The senior science and technology execu-
15 tive of the Department of the Army.

16 “(C) The senior science and technology execu-
17 tive of the Department of the Navy.

18 “(D) The senior science and technology execu-
19 tive of the Department of the Air Force.

20 “(E) The senior science and technology execu-
21 tive of the Defense Advanced Research Projects
22 Agency.

23 “(F) The senior science and technology execu-
24 tive of the Ballistic Missile Defense Organization.

1 “(G) The senior science and technology execu-
2 tive of the Defense Threat Reduction Agency.

3 “(3) The duties of the Council shall be—

4 “(A) to review and recommend priorities among
5 programs, projects, and activities proposed and eval-
6 uated by the Office under this section;

7 “(B) to make recommendations to the Board
8 regarding funding for such programs, projects, and
9 activities; and

10 “(C) to otherwise review and oversee the activi-
11 ties of the Office under this section.

12 “(f) TECHNOLOGY BOARD OF DIRECTORS.—(1)
13 There is established in the Department of Defense a board
14 to be known as the ‘Technology Board of Directors’ (in
15 this section referred to as the ‘Board’).

16 “(2) The Board shall be composed of 8 members as
17 follows:

18 “(A) The Under Secretary of Defense for Ac-
19 quisition and Technology, who shall serve as chair-
20 person of the Board.

21 “(B) The Director of Defense Research and
22 Engineering, who shall serve as vice-chairperson of
23 the Board.

24 “(C) The senior acquisition executive of the
25 Department of the Army.

1 “(D) The senior acquisition executive of the
2 Department of the Navy.

3 “(E) The senior acquisition executive of the
4 Department of the Air Force.

5 “(F) The Director of the Defense Advanced
6 Research Projects Agency.

7 “(G) The Director of the Ballistic Missile
8 Defense Organization.

9 “(H) The Director of the Defense Threat
10 Reduction Agency.

11 “(3) The duties of the Board shall be—

12 “(A) to review and make funding recommenda-
13 tions regarding the programs, projects, and activities
14 proposed and evaluated by the Office under this sec-
15 tion; and

16 “(B) to otherwise review and oversee the activi-
17 ties of the Office under this section.”.

18 (2) The table of sections at the beginning of sub-
19 chapter II of chapter 8 of such title is amended by adding
20 at the end the following new section:

“204. Joint Technology Office.”.

21 (3) The Secretary of Defense shall locate the Joint
22 Technology Office under section 204 of title 10, United
23 States Code (as added by this subsection), at the National
24 Directed Energy Center at Kirtland Air Force Base, New
25 Mexico, not later than January 1, 2001.

1 (c) TECHNOLOGY AREA WORKING GROUPS UNDER
2 HIGH ENERGY LASER MASTER PLAN.—(1) The Secretary
3 of Defense shall provide for the implementation of the por-
4 tion of the High Energy Laser Master Plan relating to
5 technology area working groups.

6 (2) In carrying out activities under this subsection,
7 the Secretary of Defense shall require the Secretary of the
8 military department concerned to provide within such de-
9 partment, with such department acting as lead agent,
10 technology area working groups as follows:

11 (A) Within the Department of the Army—

12 (i) a technology area working group on
13 solid state lasers; and

14 (ii) a technology area working group on
15 advanced technology.

16 (B) Within the Department of the Navy, a
17 technology area working group on free electron la-
18 sers.

19 (C) Within the Department of the Air Force—

20 (i) a technology area working group on
21 chemical lasers;

22 (ii) a technology area working group on
23 beam control;

24 (iii) a technology area working group on
25 lethality/vulnerability; and

1 (iv) a technology area working group on
2 high power microwaves.

3 (d) ENHANCEMENT OF INDUSTRIAL BASE.—(1) The
4 Secretary of Defense shall develop and undertake initia-
5 tives, including investment initiatives, for purposes of en-
6 hancing the industrial base for directed energy tech-
7 nologies and systems.

8 (2) Initiatives under paragraph (1) shall be designed
9 to—

10 (A) stimulate the development by institutions of
11 higher education and the private sector of promising
12 directed energy technologies and systems; and

13 (B) stimulate the development of a workforce
14 skilled in such technologies and systems.

15 (3) Of the amounts authorized to be appropriated by
16 subsection (h), \$20,000,000 shall be available for the initi-
17 ation of development of the Advanced Tactical Laser (L)
18 under the direction of the Joint Non-Lethal Weapons Di-
19 rectorate.

20 (e) ENHANCEMENT OF TEST AND EVALUATION CA-
21 PABILITIES.—(1) The Secretary of Defense shall evaluate
22 and implement proposals for modernizing the High En-
23 ergy Laser Test Facility at White Sands Missile Range,
24 New Mexico, in order to enhance the test and evaluation

1 capabilities of the Department of Defense with respect to
2 directed energy weapons.

3 (2) Of the amounts authorized to be appropriated or
4 otherwise made available to the Department of Defense
5 for each of fiscal years 2001 and 2002, not more than
6 \$2,000,000 shall be made available in each such fiscal year
7 for purposes of the deployment and test at the High En-
8 ergy Laser Test Facility at White Sands Missile Range
9 of free electron laser technologies under development at
10 Los Alamos National Laboratory, New Mexico.

11 (f) COOPERATIVE PROGRAMS AND ACTIVITIES.—(1)
12 The Secretary of Defense shall evaluate the feasibility and
13 advisability of entering into cooperative programs or ac-
14 tivities with other Federal agencies, institutions of higher
15 education, and the private sector, including the national
16 laboratories of the Department of Energy, for the purpose
17 of enhancing the programs, projects, and activities of the
18 Department of Defense relating to directed energy tech-
19 nologies, systems, and weapons.

20 (2) The Secretary shall enter into any cooperative
21 program or activity determined under the evaluation under
22 paragraph (1) to be feasible and advisable for the purpose
23 set forth in that paragraph.

24 (3) Of the amounts authorized to be appropriated by
25 subsection (h), \$50,000,000 shall be available for coopera-

1 tive programs and activities entered into under paragraph
2 (2).

3 (g) PARTICIPATION OF JOINT TECHNOLOGY COUN-
4 CIL IN ACTIVITIES.—The Secretary of Defense shall, to
5 the maximum extent practicable, carry out activities under
6 subsections (c), (d), (e), and (f), through the Joint Tech-
7 nology Council established pursuant to section 204 of title
8 10, United States Code (as added by subsection (b) of this
9 section).

10 (h) FUNDING FOR FISCAL YEAR 2001.—(1)(A)
11 There is hereby authorized to be appropriated for the De-
12 partment of Defense for fiscal year 2001, \$150,000,000
13 for science and technology activities relating to directed
14 energy technologies, systems, and weapons.

15 (B) Amounts authorized to be appropriated for fiscal
16 year 2001 by subparagraph (A) are in addition to any
17 other amounts authorized to be appropriated for such fis-
18 cal year for the activities referred to in that subparagraph.

19 (2) The Director of the Joint Technology Office es-
20 tablished pursuant to section 204 of title 10, United
21 States Code, shall allocate amounts appropriated pursuant
22 to the authorization of appropriations in paragraph (1)
23 among appropriate program elements of the Department
24 of Defense in accordance with such procedures as the Di-
25 rector shall establish.

1 (3) In establishing procedures for purposes of the al-
2 location of funds under paragraph (2), the Director shall
3 provide for the competitive selection of programs, projects,
4 and activities to be the recipients of such funds.

5 (i) DIRECTED ENERGY DEFINED.—In this section,
6 the term “directed energy”, with respect to technologies,
7 systems, or weapons means technologies, systems, or
8 weapons that provide for the directed transmission of en-
9 ergies across the energy and frequency spectrum, includ-
10 ing high energy lasers and high power microwaves.

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