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To mobilize technology and science experts to respond quickly to the threats posed by terrorist attacks and other emergencies, by providing for the establishment of a national emergency technology guard, a technology reliability advisory board, and a center for evaluating antiterrorism and disaster response technology within the National Institute of Standards and Technology.

IN THE SENATE OF THE UNITED STATES

MARCH 20, 2002

Mr. WYDEN (for himself and Mr. ALLEN) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

A BILL

To mobilize technology and science experts to respond quickly to the threats posed by terrorist attacks and other emergencies, by providing for the establishment of a national emergency technology guard, a technology reliability advisory board, and a center for evaluating antiterrorism and disaster response technology within the National Institute of Standards and Technology.

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

1 **SECTION 1. SHORT TITLE.**

2 This Act may be cited as the “Science and Tech-
3 nology Emergency Mobilization Act”.

4 **SEC. 2. CONGRESSIONAL FINDINGS AND PURPOSE.**

5 (a) FINDINGS.—The Congress finds the following:

6 (1) The National Guard has played an essential
7 role in enabling America to respond efficiently and
8 effectively to emergencies of all kinds. By providing
9 an organized corps of highly capable personnel avail-
10 able for prompt mobilization, the National Guard
11 significantly enhances the safety and security of all
12 Americans.

13 (2) Urban Search and Rescue Teams under the
14 Federal Emergency Management Agency and Med-
15 ical Response Teams under the Department of
16 Health and Human Services further enhance the na-
17 tion’s ability to respond to emergencies, by making
18 crucial specialized expertise available on a prompt
19 basis.

20 (3) The National Coordinating Center for Tele-
21 communications, housed at the National Commu-
22 nications System, enhances the Nation’s ability to
23 mitigate, respond to, and recover from disruptions
24 by coordinating with the telecommunications indus-
25 try.

1 (4) In the aftermath of the terrorist attacks of
2 September 11, 2001, many private-sector technology
3 and science experts provided valuable assistance to
4 rescue and recovery efforts by donating their time
5 and expertise. However, many who wished to help
6 had significant difficulty determining how they could
7 be most useful. They were hampered by the lack of
8 any organizational structure to harness their abili-
9 ties and coordinate their efforts.

10 (5) A prompt and well-coordinated deployment
11 of technology and science expertise could help save
12 lives, aid rescue efforts, and rebuild critical tech-
13 nology infrastructures in the event of a future major
14 terrorist attack, natural disaster, or other emer-
15 gency. Technology and science expertise also could
16 help minimize the vulnerability of critical infrastruc-
17 ture to future attacks or natural disasters.

18 (6) Police, fire personnel, and other local emer-
19 gency responders frequently could benefit from time-
20 ly technological assistance, but there is not currently
21 an organized system for locating the desired help.

22 (7) Efforts to develop and deploy innovative
23 new technologies for use by government emergency
24 prevention and response agencies can be hampered
25 by the lack of a clear contact point within the fed-

1 eral government for intake and evaluation of tech-
2 nology ideas.

3 (8) Emergency response efforts are frequently
4 hampered by the inability of police, fire, and other
5 emergency response personnel to communicate effec-
6 tively with each other and with their counterparts
7 from nearby jurisdictions, due to incompatible com-
8 munications systems. Some programs, such as the
9 Capital Wireless Integrated Network (CapWIN),
10 have made significant progress in addressing the
11 issue of interoperable communications between emer-
12 gency service providers in particular urban areas
13 and the Federal government has sought to address
14 the issue through Project SAFECOM and the Public
15 Safety Wireless Networks program. Relatively few
16 States and localities, however, have achieved a suffi-
17 cient level of communications interoperability.

18 (b) PURPOSE.—The purpose of this Act is to mobilize
19 America’s extensive capability in technology and science
20 in responding to the threats posed by terrorist attacks,
21 natural disasters, and other major emergencies, by
22 creating—

23 (1) teams of volunteers with technology and
24 science expertise, organized in advance and available
25 to be mobilized on short notice, similar to Urban

1 Search and Rescue Teams and Medical Response
 2 Teams;

3 (2) a “virtual technology reserve” consisting of
 4 a database of private-sector equipment and expertise
 5 that emergency officials may call upon in an emer-
 6 gency; and

7 (3) a national clearinghouse and test bed for in-
 8 novative civilian technologies relating to emergency
 9 prevention and response.

10 **SEC. 3. ESTABLISHMENT OF NATIONAL EMERGENCY TECH-**
 11 **NOLOGY GUARD.**

12 (a) IN GENERAL.—Not later than 6 months after the
 13 date of enactment of this Act, the President shall establish
 14 an office within the Executive Branch for the purpose of
 15 mobilizing technology and science experts to form a na-
 16 tional emergency technology guard. The office shall be
 17 headed by a Director, who shall be appointed by the Presi-
 18 dent by and with the advice and consent of the Senate.

19 (b) NATIONAL EMERGENCY TECHNOLOGY GUARD
 20 TEAMS.—

21 (1) CERTIFICATION PROCEDURES.—The Direc-
 22 tor shall develop a procedure by which a group of in-
 23 dividuals (including individuals from a single com-
 24 pany or academic institution or from multiple such
 25 entities) with technological expertise may form a

1 team and apply for certification as a national emer-
2 gency technology guard team. Each such team shall
3 be comprised of individuals with appropriate techno-
4 logical or scientific expertise and be available for de-
5 ployment on short notice to provide technology-based
6 assistance to Federal, State, and local emergency re-
7 sponse agencies, and nongovernmental emergency
8 aid, assistance, and relief organizations.

9 (2) TEAM FORMATION.—The Director may de-
10 velop and implement a system for facilitating the
11 formation of such teams by helping individuals that
12 wish to participate in such teams to locate and con-
13 tact one another.

14 (3) CRITERIA FOR CERTIFICATION.—The Direc-
15 tor shall establish criteria for the certification of
16 such teams, including—

17 (A) the types of expertise, capabilities, and
18 equipment required; and

19 (B) minimum training and practice re-
20 quirements, including participation in not less
21 than 2 emergency drills each year.

22 (4) CERTIFICATION AND CREDENTIALS.—The
23 Director shall—

24 (A) certify any group of individuals re-
25 questing certification as a national emergency

1 technology guard team that, in the opinion of
2 the Director, complies with the procedures es-
3 tablished under paragraph (1) and meets the
4 criteria established under paragraph (2);

5 (B) issue such credentials and forms of
6 identification as the Director determines to be
7 appropriate identifying each such team and its
8 members; and

9 (C) suspend or withdraw certification, and
10 recover credentials from, any certified national
11 emergency technology guard team that fails to
12 meet the criteria after its initial certification,
13 or, after notice and an opportunity for a hear-
14 ing, for other good cause shown.

15 (5) COMPENSATION; PER DIEM, TRAVEL, AND
16 TRANSPORTATION EXPENSES.—While actually en-
17 gaged in performing duties, including travel time,
18 assigned by the Director, members of a national
19 emergency technology guard team not otherwise em-
20 ployed by the Federal government may be—

21 (A) compensated for temporary or inter-
22 mittent services as experts or consultants under
23 section 3109 of title 5, United States Code; and

1 (B) allowed travel or transportation ex-
2 penses, including per diem in lieu of subsist-
3 ence, as provided by section 5703 of that title.

4 (c) DUTIES OF THE DIRECTOR.—In addition to ad-
5 ministering the office and certifying national emergency
6 technology guard teams pursuant to subsection (b), the
7 Director shall—

8 (1) activate national emergency technology
9 guard teams in an emergency (as defined in section
10 102(1) of the Robert T. Stafford Disaster Relief and
11 Emergency Assistance Act (42 U.S.C. 5122(1)) or a
12 major disaster (as defined in section 102(2) of that
13 Act);

14 (2) provide, in consultation with the Federal
15 Emergency Management Agency, for access by team
16 members to emergency sites;

17 (3) develop and maintain a virtual technology
18 reserve consisting of a database of technology or sci-
19 entific expertise and equipment that nongovern-
20 mental entities have volunteered to make available in
21 an emergency to national emergency technology
22 guard teams, Federal, State, and local emergency re-
23 sponse agencies, or nongovernmental emergency aid,
24 assistance, and relief organizations, and develop
25 such procedures as may be necessary to ensure the

1 validity, reliability, and security of the information
2 in the database;

3 (4) develop procedures that enable Federal,
4 State, and local emergency response agencies and
5 nongovernmental emergency aid, assistance, and re-
6 lief organizations to access the database quickly in
7 an emergency in order to identify potential sources
8 of technology assistance;

9 (5) assign, on a voluntary basis, national emer-
10 gency technology guard teams or individual members
11 of such teams to work, on a temporary basis and
12 subject to subsection (b)(4), on—

13 (A) the development and maintenance of
14 the database described in paragraph (2) and
15 the procedures for access to the database; and

16 (B) such other technology related projects
17 to improve emergency preparedness and preven-
18 tion as the Director determines to be appro-
19 priate, including (at the discretion of the Direc-
20 tor)—

21 (i) development and maintenance of
22 databases or other technologies that could
23 be deployed quickly at the site of an emer-
24 gency and used—

1 (I) to match offers of assistance
2 with needs at the site;

3 (II) to identify individuals miss-
4 ing, injured, or killed as a result of
5 the emergency, track their location,
6 and facilitate the use of missing per-
7 sons reports in the identification proc-
8 ess;

9 (III) to handle credentialing for
10 controlling access to the emergency
11 site; and

12 (ii) consultation with State and local
13 emergency response agencies on ways to
14 enhance the robustness, interoperability,
15 and security of their emergency commu-
16 nications systems; and

17 (iii) provision of other nonemergency
18 technology advice and assistance requested
19 by State and local emergency response
20 agencies;

21 (6) coordinate the activities of the office with
22 Federal, State, and local government agencies (in-
23 cluding the National Communications System), and
24 nongovernmental emergency aid, assistance, and re-
25 lief organizations; and

1 (7) ensure that the activities of the office build
2 upon, rather than duplicate, the work done by the
3 National Communications System and the reports
4 and recommendations of the National Security Tele-
5 communications Advisory Committee.

6 **SEC. 4. TECHNOLOGY RELIABILITY ADVISORY BOARD.**

7 (a) IN GENERAL.—The Director shall appoint a
8 Technology Reliability Advisory Board and designate a
9 chair and vice-chair of the Board.

10 (b) MEMBERSHIP.—The Board shall be comprised of
11 9 members, selected on the basis of the relevance of their
12 training, experience, and expertise and without regard to
13 political affiliation for a term of 3 years, except that of
14 the members initially appointed, one-third shall be ap-
15 pointed for a term of 1 year, one-third shall be appointed
16 for a term of 2 years, and one-third shall be appointed
17 for a term of 3 years. If any member appointed to the
18 Board does not serve the full term to which that member
19 was appointed, the Director shall appoint a successor to
20 serve the balance of that term. The Board shall elect a
21 chair and a vice chair from among its members. The vice
22 chair shall function as the chair whenever there is a va-
23 cancy in the chair or when requested by the chair.

24 (c) FUNCTION.—The Board shall—

1 (1) meet at such times and places as the Direc-
 2 tor may require, or, with the consent of the Direc-
 3 tor, at the call of its chair;

4 (2) provide guidance to government, industry,
 5 and the public on technical aspects of how to make
 6 technology infrastructure less vulnerable to disrup-
 7 tion;

8 (3) make recommendations with respect to what
 9 constitute good practices with respect to redundancy,
 10 backups, disaster planning, emergency preparedness
 11 and recovery of technological and communications
 12 systems;

13 (4) coordinate its efforts, as appropriate, with
 14 the Office of Homeland Security, the President's
 15 Critical Infrastructure Protection Board, and the
 16 National Communications System; and

17 (5) provide advice and counsel to the Director.

18 **SEC. 5. CENTER FOR CIVILIAN HOMELAND SECURITY**

19 **TECHNOLOGY EVALUATION.**

20 (a) IN GENERAL.—The Director of the National In-
 21 stitute of Standards and Technology shall establish within
 22 the Institute a Center for Civilian Homeland Security
 23 Technology Evaluation.

24 (b) FUNCTION.—The Center shall—

1 (1) serve as a national clearinghouse for innova-
2 tive technologies relating to security and emergency
3 preparedness and response;

4 (2) upon request consult with and advise Fed-
5 eral agencies about the development, modification,
6 acquisition, and deployment of technology relating to
7 security and emergency preparedness and response;

8 (3) investigate promising new technologies re-
9 lating to security and emergency preparedness and
10 response; and

11 (4) operate, in cooperation with other Federal
12 agencies, the National laboratories, and the National
13 Academies of Sciences, a technology test bed for
14 evaluating new technology when requested by a Fed-
15 eral agency to determine whether it meets Federal,
16 State, or local government or nongovernmental
17 needs for homeland security and emergency pre-
18 paredness and response purposes.

19 (c) **PROCUREMENT NOT CONDITIONED ON SUBMIS-**
20 **SION.**—Nothing in this section requires a technology to
21 be submitted to, or evaluated by, the Center in order to
22 be eligible for procurement by Federal agencies.

23 **SEC. 6. REPORTS.**

24 (a) **WIRELESS COMMUNICATIONS CAPABILITIES FOR**
25 **FIRST RESPONDERS.**—Within 1 year after the date of en-

1 actment of this Act, the National Communications System
2 shall, in consultation with the National Security and
3 Emergency Preparedness Communications Committee, the
4 Federal Communications Commission, the National Tele-
5 communications and Information Administration, and
6 other Federal agencies as appropriate, submit a report to
7 the Congress setting forth policy options and recommenda-
8 tions for ensuring that emergency officials and first re-
9 sponders have access to effective and reliable wireless com-
10 munications capabilities. The report shall include an ex-
11 amination of the possibility of—

12 (1) developing a system of priority access to ex-
13 isting commercial wireless systems;

14 (2) designating national emergency spectrum to
15 be held in reserve for public safety and emergency
16 purposes; and

17 (3) creating a specialized public safety commu-
18 nications network or networks for use with wireless
19 devices customized for public safety use.

20 (b) IN-KIND DONATIONS.—Within 1 year after the
21 date of enactment of this Act, the Federal Emergency
22 Management Agency, in consultation with other appro-
23 priate Federal agencies, shall submit to the Committee on
24 Commerce, Science, and Transportation of the Senate and
25 the Committee on Science of the House of Representatives

1 a report on the barriers to acceptance by Federal agencies
2 of in-kind donations of technology and services during
3 emergency situations. The report shall include rec-
4 ommendations for any legislative changes or conditions
5 needed to make the use of such donations possible.

6 **SEC. 7. COMMUNICATIONS INTEROPERABILITY PILOT**
7 **PROJECTS.**

8 (a) IN GENERAL.—The Administrator of the United
9 States Fire Administration shall establish and conduct a
10 pilot program for planning or implementation of interoper-
11 able communications systems for appropriate emergency
12 response agencies.

13 (b) GRANTS.—The Administrator shall, in consulta-
14 tion with the manager of the Public Safety Wireless Net-
15 works program, make grants under the program of
16 \$5,000,000 each to 7 different States for pilot projects
17 under the program.

18 (c) CRITERIA; ADMINISTRATIVE PROVISIONS.—The
19 Administrator shall prescribe such criteria for eligibility
20 for projects and for grantees, including applications, fund
21 use assurance and accounting, and reporting requirements
22 as the Administrator deems appropriate. In prescribing
23 such criteria, the Administrator shall consult with the ad-
24 ministrators of existing projects designed to facilitate pub-

1 lie safety communications interoperability concerning the
 2 best practices and lessons learned from such projects.

3 **SEC. 8. AUTHORIZATION OF APPROPRIATIONS.**

4 (a) NATIONAL EMERGENCY TECHNOLOGY GUARD.—
 5 There are authorized to be appropriated to the head of
 6 the department or agency in which the office established
 7 under section 3(a) is created \$5,000,000 for each of fiscal
 8 years 2003 and 2004 to carry out sections 3 and 4.

9 (b) NATIONAL INSTITUTE OF STANDARDS AND
 10 TECHNOLOGY.—There are authorized to be appropriated
 11 to the National Institute of Standards and Technology to
 12 carry out section 5—

13 (1) \$15,000,000 for fiscal year 2003; and

14 (2) \$20,000,000 for fiscal year 2004.

15 (c) FIRE ADMINISTRATION.—There are authorized to
 16 be appropriated to the United States Fire Administration
 17 \$35,000,000 for fiscal year 2003 to carry out section 7
 18 of this Act, such seems to remain available until expended.

19 (d) NATIONAL COMMUNICATIONS SYSTEM.—There
 20 are authorized to be appropriated to the National Commu-
 21 nications System \$500,000 for fiscal year 2003 to carry
 22 out section 6 of this Act.

23 **SEC. 9. EMERGENCY RESPONSE AGENCIES.**

24 In this Act, the term “emergency response agency”
 25 includes agencies providing any of the following services:

- 1 (1) Law Enforcement services.
- 2 (2) Fire services.
- 3 (3) Emergency Medical services.
- 4 (4) Public Safety Communications.
- 5 (5) Emergency Preparedness.

