Calendar No. 459

107TH CONGRESS
2D SESSION

S. 2037

[Report No. 107–186]

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

JUNE 27, 2002

Reported by Mr. HOLLINGS, with an amendment

[Strike out all after the enacting clause and insert the part printed in italic]

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.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Science and Technology Emergency Mobilization Act''.

SEC. 2. CONGRESSIONAL FINDINGS AND PURPOSE.

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

(1) The National Guard has played an essential role in enabling America to respond efficiently and effectively to emergencies of all kinds. By providing an organized corps of highly capable personnel available for prompt mobilization, the National Guard significantly enhances the safety and security of all Americans.

(2) Urban Search and Rescue Teams under the Federal Emergency Management Agency and Medical Response Teams under the Department of Health and Human Services further enhance the nation's ability to respond to emergencies, by making crucial specialized expertise available on a prompt basis.

(3) The National Coordinating Center for Telecommunications, housed at the National Communications System, enhances the Nation's ability to mitigate, respond to, and recover from disruptions

by coordinating with the telecommunications industry.

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

(5) A prompt and well-coordinated deployment of technology and science expertise could help save lives, aid rescue efforts, and rebuild critical technology infrastructures in the event of a future major terrorist attack, natural disaster, or other emergency. Technology and science expertise also could help minimize the vulnerability of critical infrastructure to future attacks or natural disasters.

(6) Police, fire personnel, and other local emergency responders frequently could benefit from timely technological assistance, but there is not currently an organized system for locating the desired help.

(7) Efforts to develop and deploy innovative new technologies for use by government emergency

prevention and response agencies can be hampered by the lack of a clear contact point within the federal government for intake and evaluation of technology ideas.

(8) Emergency response efforts are frequently hampered by the inability of police, fire, and other emergency response personnel to communicate effectively with each other and with their counterparts from nearby jurisdictions, due to incompatible communications systems. Some programs, such as the Capital Wireless Integrated Network (CapWIN), have made significant progress in addressing the issue of interoperable communications between emergency service providers in particular urban areas and the Federal government has sought to address the issue through Project SAFECOM and the Public Safety Wireless Networks program. Relatively few States and localities, however, have achieved a sufficient level of communications interoperability.

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

(1) teams of volunteers with technology and science expertise, organized in advance and available to be mobilized on short notice, similar to Urban Search and Rescue Teams and Medical Response Teams;

(2) a ''virtual technology reserve'' consisting of a database of private-sector equipment and expertise that emergency officials may call upon in an emergency; and

(3) a national clearinghouse and test bed for innovative civilian technologies relating to emergency prevention and response.

SEC. 3. ESTABLISHMENT OF NATIONAL EMERGENCY TECHNOLOGY GUARD.

(a) IN GENERAL.—Not later than 6 months after the date of enactment of this Act, the President shall establish an office within the Executive Branch for the purpose of mobilizing technology and science experts to form a national emergency technology guard. The office shall be headed by a Director, who shall be appointed by the President by and with the advice and consent of the Senate.

(b) NATIONAL EMERGENCY TECHNOLOGY GUARD TEAMS.—

(1) CERTIFICATION PROCEDURES.—The Director shall develop a procedure by which a group of in-

~~dividuals (including individuals from a single company or academic institution or from multiple such entities) with technological expertise may form a team and apply for certification as a national emergency technology guard team. Each such team shall be comprised of individuals with appropriate technological or scientific expertise and be available for deployment on short notice to provide technology-based assistance to Federal, State, and local emergency response agencies, and nongovernmental emergency aid, assistance, and relief organizations.~~

~~(2) TEAM FORMATION.—The Director may develop and implement a system for facilitating the formation of such teams by helping individuals that wish to participate in such teams to locate and contact one another.~~

~~(3) CRITERIA FOR CERTIFICATION.—The Director shall establish criteria for the certification of such teams, including—~~

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

~~(B) minimum training and practice requirements, including participation in not less than 2 emergency drills each year.~~

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

(A) certify any group of individuals requesting certification as a national emergency technology guard team that, in the opinion of the Director, complies with the procedures established under paragraph (1) and meets the criteria established under paragraph (2);

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

(C) suspend or withdraw certification, and recover credentials from, any certified national emergency technology guard team that fails to meet the criteria after its initial certification, or, after notice and an opportunity for a hearing, for other good cause shown.

(5) COMPENSATION; PER DIEM, TRAVEL, AND TRANSPORTATION EXPENSES.—While actually engaged in performing duties, including travel time, assigned by the Director, members of a national emergency technology guard team not otherwise employed by the Federal government may be—

(A) compensated for temporary or intermittent services as experts or consultants under section 3109 of title 5, United States Code; and

(B) allowed travel or transportation expenses, including per diem in lieu of subsistence, as provided by section 5703 of that title.

(c) DUTIES OF THE DIRECTOR.—In addition to administering the office and certifying national emergency technology guard teams pursuant to subsection (b), the Director shall—

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

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

(3) develop and maintain a virtual technology reserve consisting of a database of technology or scientific expertise and equipment that nongovernmental entities have volunteered to make available in an emergency to national emergency technology guard teams, Federal, State, and local emergency re-

sponse agencies, or nongovernmental emergency aid, assistance, and relief organizations, and develop such procedures as may be necessary to ensure the validity, reliability, and security of the information in the database;

(4) develop procedures that enable Federal, State, and local emergency response agencies and nongovernmental emergency aid, assistance, and relief organizations to access the database quickly in an emergency in order to identify potential sources of technology assistance;

(5) assign, on a voluntary basis, national emergency technology guard teams or individual members of such teams to work, on a temporary basis and subject to subsection (b)(4), on—

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

(B) such other technology related projects to improve emergency preparedness and prevention as the Director determines to be appropriate, including (at the discretion of the Director)—

(i) development and maintenance of databases or other technologies that could

be deployed quickly at the site of an emergency and used—

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

(II) to identify individuals missing, injured, or killed as a result of the emergency, track their location, and facilitate the use of missing persons reports in the identification process;

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

(ii) consultation with State and local emergency response agencies on ways to enhance the robustness, interoperability, and security of their emergency communications systems; and

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

(6) coordinate the activities of the office with Federal, State, and local government agencies (including the National Communications System), and

nongovernmental emergency aid, assistance, and relief organizations; and

(7) ensure that the activities of the office build upon, rather than duplicate, the work done by the National Communications System and the reports and recommendations of the National Security Telecommunications Advisory Committee.

SEC. 4. TECHNOLOGY RELIABILITY ADVISORY BOARD.

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

(b) MEMBERSHIP.—The Board shall be comprised of 9 members, selected on the basis of the relevance of their training, experience, and expertise and without regard to political affiliation for a term of 3 years, except that of the members initially appointed, one-third shall be appointed for a term of 1 year, one-third shall be appointed for a term of 2 years, and one-third shall be appointed for a term of 3 years. If any member appointed to the Board does not serve the full term to which that member was appointed, the Director shall appoint a successor to serve the balance of that term. The Board shall elect a chair and a vice chair from among its members. The vice chair shall function as the chair whenever there is a vacancy in the chair or when requested by the chair.

~~(c) FUNCTION.—The Board shall—~~

~~(1) meet at such times and places as the Director may require, or, with the consent of the Director, at the call of its chair;~~

~~(2) provide guidance to government, industry, and the public on technical aspects of how to make technology infrastructure less vulnerable to disruption;~~

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

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

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

~~SEC. 5. CENTER FOR CIVILIAN HOMELAND SECURITY TECHNOLOGY EVALUATION.~~

~~(a) IN GENERAL.—The Director of the National Institute of Standards and Technology shall establish within the Institute a Center for Civilian Homeland Security Technology Evaluation.~~

~~(b) FUNCTION.—The Center shall—~~

(1) serve as a national clearinghouse for innovative technologies relating to security and emergency preparedness and response;

(2) upon request consult with and advise Federal agencies about the development, modification, acquisition, and deployment of technology relating to security and emergency preparedness and response;

(3) investigate promising new technologies relating to security and emergency preparedness and response; and

(4) operate, in cooperation with other Federal agencies, the National laboratories, and the National Academies of Sciences, a technology test bed for evaluating new technology when requested by a Federal agency to determine whether it meets Federal, State, or local government or nongovernmental needs for homeland security and emergency preparedness and response purposes.

(c) PROCUREMENT NOT CONDITIONED ON SUBMISSION.—Nothing in this section requires a technology to be submitted to, or evaluated by, the Center in order to be eligible for procurement by Federal agencies.

SEC. 6. REPORTS.

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

actment of this Act, the National Communications System shall, in consultation with the National Security and Emergency Preparedness Communications Committee, the Federal Communications Commission, the National Telecommunications and Information Administration, and other Federal agencies as appropriate, submit a report to the Congress setting forth policy options and recommendations for ensuring that emergency officials and first responders have access to effective and reliable wireless communications capabilities. The report shall include an examination of the possibility of—

(1) developing a system of priority access to existing commercial wireless systems;

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

(3) creating a specialized public safety communications network or networks for use with wireless devices customized for public safety use.

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

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

SEC. 7. COMMUNICATIONS INTEROPERABILITY PILOT PROJECTS.

(a) IN GENERAL.—The Administrator of the United States Fire Administration shall establish and conduct a pilot program for planning or implementation of interoperable communications systems for appropriate emergency response agencies.

(b) GRANTS.—The Administrator shall, in consultation with the manager of the Public Safety Wireless Networks program, make grants under the program of $5,000,000 each to 7 different States for pilot projects under the program.

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

lic safety communications interoperability concerning the best practices and lessons learned from such projects.

SEC. 8. AUTHORIZATION OF APPROPRIATIONS.

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

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

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

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

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

(d) NATIONAL COMMUNICATIONS SYSTEM.—There are authorized to be appropriated to the National Communications System $500,000 for fiscal year 2003 to carry out section 6 of this Act.

SEC. 9. EMERGENCY RESPONSE AGENCIES

In this Act, the term ''emergency response agency'' includes agencies providing any of the following services:

~~(1) Law Enforcement services.~~

~~(2) Fire services.~~

~~(3) Emergency Medical services.~~

~~(4) Public Safety Communications.~~

~~(5) Emergency Preparedness.~~

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Science and Technology Emergency Mobilization Act''.

SEC. 2. CONGRESSIONAL FINDINGS AND PURPOSE.

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

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

(2) A prompt and well-coordinated volunteer base of technology and science expertise could help save lives, aid rescue efforts, and rebuild critical technology infrastructures in the event of a future major terrorist attack, natural disaster, or other emergency. Technology and science expertise also could help min-

imize the vulnerability of critical infrastructure to future attacks or natural disasters.

(3) Police, fire personnel, and other local emergency responders frequently could benefit from timely technological assistance, and efforts to organize a system to assist in locating the desired help should be expedited.

(4) Efforts to develop and deploy innovative new technologies for use by government emergency prevention and response agencies would be improved by the designation of a clear contact point within the federal government for intake and evaluation of technology ideas.

(5) The creation of compatible communications systems would strengthen emergency response efforts of police, fire, and other emergency response personnel to communicate effectively with each other and with their counterparts from nearby jurisdictions. Some programs, such as the Capital Wireless Integrated Network (CapWIN), have made significant progress in addressing the issue of interoperable communications between emergency service providers in particular urban areas and the Federal government has sought to address the issue through the Public Safety Wireless Networks program. Relatively few States and

localities, however, have achieved a sufficient level of communications interoperability.

(b) PURPOSE.—The purpose of this Act is to reinforce, focus, and expedite ongoing efforts to mobilize America's extensive capability in technology and science in responding to the threats posed by terrorist attacks, natural disasters, and other major emergencies, by creating—

(1) a national emergency technology guard or "NET Guard" that includes—

(A) rapid response teams of volunteers with technology and science expertise, organized at the local level; and

(B) opportunities for NET Guard volunteers to assist with non-emergency tasks related to local preparedness and prevention, including reducing the vulnerability of government information technology systems;

(2) a national clearinghouse for innovative civilian technologies relating to emergency prevention and response; and

(3) a pilot program to assist state efforts to achieve the interoperability of communications systems used by fire, law enforcement, and emergency preparedness and response agencies.

SEC. 3. ESTABLISHMENT OF NATIONAL EMERGENCY TECHNOLOGY GUARD.

(a) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the President shall designate an appropriate department, agency, or office to compile and maintain a repository database of nongovernmental technology and science experts who have offered, and who can be mobilized, to help Federal agencies counter terrorism.

(b) NET GUARD DISASTER RESPONSE TEAMS.—

(1) CERTIFICATION PROCEDURES.—The President shall also designate an appropriate department, agency, or office (which may be the department, agency, or office designated under subsection (a)) to develop a procedure to encourage groups of volunteers with technological or scientific expertise to team with individuals from State and local governments, local emergency response agencies, and nongovernmental emergency aid, assistance, and relief organizations.

(2) TEAM FORMATION.—The department, agency, or office designated under paragraph (1) may develop and implement a system for facilitating the formation of local teams of such volunteers by helping individuals that wish to participate in such teams to locate and contact one another.

(3) CRITERIA FOR CERTIFICATION.—The department, agency, or office designated under paragraph

(1) shall establish criteria for the certification of such teams, including—

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

(B) minimum training and practice requirements, including participation in not less than 2 emergency drills each year.

(4) CERTIFICATION AND CREDENTIALS.—The department, agency, or office designated under paragraph (1) shall—

(A) certify any group of individuals requesting certification as a NET Guard disaster response team that complies with the procedures established under paragraph (1) and meets the criteria established under paragraph (3);

(B) issue credentials and forms of identification as appropriate identifying each such team and its members; and

(C) suspend, withdraw, or terminate certification of and recover credentials and forms of identification from any NET Guard disaster response team, or any member thereof, when the head of the entity designated deems it appropriate.

(5) COMPENSATION; PER DIEM, TRAVEL, AND TRANSPORTATION EXPENSES.—The department, agency, or office designated under paragraph (1) may authorize the payment to a member of a NET Guard disaster response team, for the period that member is engaged in performing duties as such member at the request of the United States—

(A) compensation as employees for temporary or intermittent services as experts or consultants under section 3109 of title 5, United States Code; and

(B) travel or transportation expenses, including per diem in lieu of subsistence, as provided by section 5703 of title 5.

(c) ADDITIONAL AUTHORITIES.—The head of the department, agency, or office designated under paragraph (1) may—

(1) activate NET Guard disaster response teams in an emergency (as defined in section 102(1) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5122(1)) or a major disaster (as defined in section 102(2) of that Act);

(2) provide for access by team members to emergency sites; and

(3) assign, on a voluntary basis, NET Guard volunteers to work, on a temporary basis on—

(A) the development and maintenance of the database described in subsection (a) and the procedures for access to the database; and

(B) such other technology related projects to improve emergency preparedness and prevention as may be appropriate.

SEC. 4. CENTER FOR CIVILIAN HOMELAND SECURITY TECHNOLOGY EVALUATION.

(a) IN GENERAL.—The President shall establish a Center for Civilian Homeland Security Technology Evaluation within the Executive Branch to evaluate innovative technologies relating to security and emergency preparedness and response and to serve as a national clearinghouse for such technologies.

(b) FUNCTION.—The Center shall—

(1) serve as a principal, national contact point for the intake of innovative technologies relating to security and emergency preparedness and response;

(2) evaluate promising new technologies relating to security and emergency preparedness and response;

(3) assure persons and companies that have submitted a technology receive a timely response to inquiries;

(4) upon request by Federal agencies consult with and advise Federal agencies about the development, modification, acquisition, and deployment of technology relating to security and emergency preparedness and response; and

(5) provide individuals and companies that have submitted information about a technology the ability to track, to the extent practicable, the current status of their submission online.

(c) MODEL.—The Center may be modeled on the Technical Support Working Group that provides an interagency forum to coordinate research and development of technologies for combating terrorism.

(d) INTERNET ACCESS.—

(1) IN GENERAL.—The President shall create an online portal accessible through the FirstGov Internet website (www.firstgov.gov), or any successor to such website, to provide individuals and companies with innovative technologies a single point of access to the Center and a single point of contact at each Federal agency participating in the Center.

(2) FUNCTIONS.—The Center portal shall—

(A) provide individuals and companies with an online opportunity to obtain information about various open solicitations relevant to

homeland security and points of contact for submission of solicited and unsolicited proposals; and

(B) include safeguards to ensure that business proprietary information is protected and that no personally identifiable information is accessible to unauthorized persons.

(e) PROCUREMENT NOT CONDITIONED ON SUBMISSION.—Nothing in this section requires a technology to be submitted to, or evaluated by, the Center in order to be eligible for procurement by Federal agencies.

SEC. 5. COMMUNICATIONS INTEROPERABILITY PILOT PROJECTS.

(a) IN GENERAL.—The President shall establish within an appropriate department, agency, or office a pilot program for planning or implementation of interoperable communications systems for appropriate emergency response agencies.

(b) GRANTS.—The head of the department, agency, or office in which the program is established under subsection (a) shall make grants of $5,000,000 each to 7 different States for pilot projects under the program.

(c) CRITERIA; ADMINISTRATIVE PROVISIONS.—The head of the department, agency, or office in which the program is established under subsection (a), in consultation

with other appropriate agencies, shall prescribe such criteria for eligibility for projects and for grantees, including applications, fund use assurance and accounting, and reporting requirements as the head of the entity deems appropriate. In prescribing such criteria, the head of the department, agency, or office shall consult with the administrators of existing projects designed to facilitate public safety communications interoperability concerning the best practices and lessons learned from such projects.

SEC. 6. REPORTS.

(a) WIRELESS COMMUNICATIONS CAPABILITIES FOR FIRST RESPONDERS.—Within 1 year after the date of enactment of this Act, the President shall designate an appropriate department, agency, or office to submit a report to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science of the House of Representatives setting forth policy options for ensuring that emergency officials and first responders have access to effective and reliable wireless communications capabilities. The report shall include an examination of the possibility of—

(1) developing a system of priority access to existing commercial wireless systems;

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

(3) creating a specialized public safety communications network or networks for use with wireless devices customized for public safety use.

(b) IN-KIND DONATIONS.—Within 1 year after the date of enactment of this Act, the Federal Emergency Management Agency, in consultation with other appropriate Federal agencies, shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science of the House of Representatives a report on the barriers to acceptance by Federal agencies of in-kind donations of technology and services during emergency situations.

SEC. 7. AUTHORIZATION OF APPROPRIATIONS.

(a) NATIONAL EMERGENCY TECHNOLOGY GUARD.—There are authorized to be appropriated $5,000,000 for each of fiscal years 2003 and 2004 to carry out section 3.

(b) PILOT PROGRAMS.—There are authorized to be appropriated to the department, agency, or office in which the program is established under section 5(a) $35,000,000 for fiscal year 2003 to carry out section 5 of this Act, such sums to remain available until expended.

(c) REPORT.—There are authorized to be appropriated to the department, agency, or office designated in section 6(a) $500,000 for fiscal year 2003 to carry out section 6(a) of this Act.

SEC. 8. EMERGENCY RESPONSE AGENCIES.

In this Act, the term "emergency response agency" includes agencies providing any of the following services:

(1) Law Enforcement services.

(2) Fire services.

(3) Emergency Medical services.

(4) Public Safety Communications.

(5) Emergency Preparedness.

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