

Calendar No. 459

107TH CONGRESS }
2d Session }

SENATE

{ REPORT
107-186 }

**SCIENCE AND TECHNOLOGY EMERGENCY
MOBILIZATION ACT**

R E P O R T

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND
TRANSPORTATION

ON

S. 2037



JUNE 27, 2002.—Ordered to be printed

U.S. GOVERNMENT PRINTING OFFICE

99-010

WASHINGTON : 2002

SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED SEVENTH CONGRESS

SECOND SESSION

ERNEST F. HOLLINGS, South Carolina, *Chairman*

DANIEL K. INOUE, Hawaii	JOHN MCCAIN, Arizona
JOHN D. ROCKEFELLER IV, West Virginia	TED STEVENS, Alaska
JOHN F. KERRY, Massachusetts	CONRAD BURNS, Montana
JOHN B. BREAUX, Louisiana	TRENT LOTT, Mississippi
BYRON L. DORGAN, North Dakota	KAY BAILEY HUTCHISON, Texas
RON WYDEN, Oregon	OLYMPIA SNOWE, Maine
MAX CLELAND, Georgia	SAM BROWNBACK, Kansas
BARBARA BOXER, California	GORDON SMITH, Oregon
JOHN EDWARDS, North Carolina	PETER G. FITZGERALD, Illinois
JEAN CARNAHAN, Missouri	JOHN ENSIGN, Nevada
BILL NELSON, Florida	GEORGE ALLEN, Virginia

KEVIN D. KAYES, *Staff Director*

MOSES BOYD, *Chief Counsel*

GREGG ELIAS, *General Counsel*

JEANNE BUMPUS, *Republican Staff Director and General Counsel*

ANN BEGEMAN, *Republican Deputy Staff Director*

Calendar No. 459

107TH CONGRESS }
2d Session }

SENATE

{ REPORT
107-186

SCIENCE AND TECHNOLOGY EMERGENCY MOBILIZATION ACT

JUNE 27, 2002.—Ordered to be printed

Mr. HOLLINGS, from the Committee on Commerce, Science, and
Transportation, submitted the following

REPORT

[To accompany S. 2037]

The Committee on Commerce, Science, and Transportation, to which was referred the bill (S. 2037) 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, having considered the same, reports favorably thereon with an amendment and recommends that the bill (as amended) do pass.

PURPOSE OF THE BILL

The purpose of the bill, as reported, 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 national emergencies.

BACKGROUND AND NEEDS

There are many who believe that America's great technological prowess is a key weapon in our defense arsenal against terrorism and other threats. In this regard, while the United States has begun to mobilize health, rescue, military, and other vital sectors to fight terrorism, more needs to be done to effectively mobilize the Nation's millions of scientists and technology specialists.

The Committee's Subcommittee on Science, Technology, and Space (Subcommittee) found that in the aftermath of September 11, while many technology companies volunteered valuable serv-

ices—and their expertise was critical in recovery efforts—frequently volunteers had a difficult time contacting the officials and organizations that could have benefited from their help. This lack of effective communication, cooperation, and organization presents a significant challenge in light of the security problems that the United States faces and must correct to facilitate an effective response to terrorist attacks and other significant physical threats in the future. For example, in the event of an incident involving bioterrorism, while local experts may be available, there presently is no national means nor process to catalog and organize this expertise.

Although the private sector currently possesses and is producing a growing number of technologies designed to enhance homeland security, the Federal effort to evaluate these technologies is diffuse, and highly inefficient and disorganized. As it stands, some Federal agencies are overwhelmed with offers of assistance, but lack the internal capacity to evaluate the technologies.

The Subcommittee further found that on September 11, first responders such as fire fighters were unable to communicate with one another because their communications systems were not interoperable. In fact, at times, commanders had to resort to sending instructions to the front lines using paper notes delivered by runners. This lack of interoperable communications can significantly hamper emergency response efforts.

LEGISLATIVE HISTORY

S. 2037, the Science and Technology Emergency Mobilization Act, was introduced by Senators Wyden and Allen on March 20, 2002. The Subcommittee held three hearings on issues related to S. 2037: (1) *Response of the Technology Sector in Times of Crisis*, held on December 5, 2001; (2) *Fighting Bioterrorism: Using America's Scientists and Entrepreneurs to Find Solutions*, held on February 5, 2002; and (3) *Homeland Security and the Technology Sector: S. 2037 and S. 2182*, held on April 24, 2002.

On May 17, 2002, the Committee met in open executive session and ordered S. 2037 reported with an amendment in the nature of a substitute. The amendment made changes to the provisions of the underlying bill to better align the activities authorized under S. 2037 with the Administration's current activities.

SUMMARY OF MAJOR PROVISIONS

The major provisions of S. 2037, as reported, would:

- (1) provide for the creation of a database of private-sector expertise that emergency officials may call upon in an emergency;
- (2) provide for the creation of National Emergency Technology Guard (NET Guard) teams of volunteers with technology and science expertise, organized in advance and available to be mobilized on short notice, similar to existing Urban Search and Rescue Teams under the Federal Emergency Management Agency (FEMA) and Medical Response Teams under the Department of Health and Human Services (HHS);
- (3) create a Center for Civilian Homeland Security Technology Evaluation, modeled on the existing Technical Support

Working Group, to serve as a national clearinghouse for innovative technologies relating to emergency prevention and response; and

(4) establish a pilot program under which grants of \$5 million each would be available for seven pilot projects aimed at achieving the interoperability of communications systems used by fire, law enforcement, and emergency preparedness and response agencies.

ESTIMATED COSTS

In accordance with paragraph 11(a) of rule XXVI of the Standing Rules of the Senate and section 403 of the Congressional Budget Act of 1974, the Committee provides the following cost estimate, prepared by the Congressional Budget Office:

U.S. CONGRESS,
CONGRESSIONAL BUDGET OFFICE,
Washington, DC, May 29, 2002.

Hon. ERNEST F. HOLLINGS,
*Chairman, Committee on Commerce, Science, and Transportation,
U.S. Senate, Washington, DC.*

DEAR MR. CHAIRMAN: The Congressional Budget Office has prepared the enclosed cost estimate for S. 2037, the Science and Technology Emergency Mobilization Act.

If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contact is Julie Middleton.

Sincerely,

BARRY B. ANDERSON
(For Dan Crippen, Director).

Enclosure.

S. 2037—Science and Technology Emergency Mobilization Act

Summary: S. 2037 would authorize the President to establish a national emergency technology guard and a national clearinghouse for emergency prevention and response technology. In addition, the bill would authorize the implementation of a pilot program in seven states to make the communications systems used by fire, law enforcement, and emergency preparedness and response agencies compatible.

Assuming appropriation of the necessary amounts, CBO estimates that implementing the bill would cost \$70 million over the 2003–2007 period. S. 2037 would not affect direct spending or receipts; therefore, pay-as-you-go procedures would not apply.

S. 2037 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would provide \$35 million in grants to states in fiscal year 2003 for pilot programs designed to plan and implement interoperable communications systems.

Estimated cost to the Federal Government: The estimated budgetary impact of S. 2037 is shown in the following table. The costs of this legislation fall within budget function 450 (community and regional development).

	By fiscal year, in millions of dollars—				
	2003	2004	2005	2006	2007
CHANGES IN SPENDING SUBJECT TO APPROPRIATION					
Estimated Authorization Level	46	10	5	5	5
Estimated Outlays	10	34	16	5	5

Basis of estimate: For this estimate, CBO assumes that S. 2037 will be enacted by the start of fiscal year 2003 and the necessary funds will be appropriated for each year. Based on information from the Office of Management and Budget and historical spending patterns of similar programs, CBO estimates that implementing S. 2037 would cost \$70 million over the 2003–2007 period. The bill would authorize \$5 million in both 2003 and 2004 for the national emergency technology guard (to be known as NET Guard). CBO assumes that these funds would be spend on salaries and related expenses for establishing, managing, and training a team of volunteers to help federal agencies counter terrorism.

S. 2037 would authorize the establishment of a Center for Civilian Homeland Security Technology Evaluation. Based on information from similar programs, such as the Technical Support Working Group and the Office of Science and Technology Policy, CBO estimates that the center would cost about \$5 million each year.

In addition, the bill would authorize the appropriation of \$35 million to conduct pilot projects in seven states to improve communications among first responders (fire, police, emergency preparedness) at the local level. CBO estimates that this provision would cost \$35 million over the 2003–2007 period, based on historical spending patterns of similar programs.

Finally, S. 2037 would direct the President to report on wireless communications capabilities of first responders and the barriers faced by federal agencies to accepting in-kind donations of technology and services during emergencies. CBO estimates those reports would cost about \$1 million.

Pay-as-you-go considerations: None.

Intergovernmental and private-sector impact: S. 2037 contains no intergovernmental or private-sector mandates as defined in UMRA and would provide \$35 million in grants to states in fiscal year 2003 for pilot programs designed to plan and implement interoperable communications systems.

Estimate prepared by: Federal Costs: Julie Middleton, Impact on State, Local, and Tribal Governments: Leo Lex, and Impact on the Private Sector: Lauren Marks.

Estimate approved by: Peter H. Fontaine.

REGULATORY IMPACT STATEMENT

In accordance with paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee provides the following evaluation of the regulatory impact of the legislation, as reported:

NUMBER OF PERSONS COVERED

This legislation would create a database of persons willing to volunteer their expertise to the Federal government and would establish NET Guard teams of volunteers. NET Guard volunteers would be subject to regulations issued to certify NET Guard teams.

ECONOMIC IMPACT

Although it is reasonable to expect that volunteers, if called to serve, may be called away from their regular jobs on a temporary basis, this legislation is not expected to have an adverse economic impact on the Nation.

PRIVACY

This legislation would not have a negative impact on the personal privacy of individuals. The disclosure of personal information to the entity or entities designated to establish the database and to administer the NET Guard would be made voluntarily by any individuals wishing to be a part of these programs. In addition, the Committee expects that such entity or entities would take appropriate steps to control access to this information.

PAPERWORK

This legislation would not increase paperwork requirements for private individuals or businesses. Businesses seeking to offer technology products to the government may find their paperwork burden reduced through the internet portal established by the Center for Homeland Security Technology. Section 6 of the legislation also would require two reports on wireless communications and in-kind donations by the Federal government.

SECTION-BY-SECTION ANALYSIS

Section 1. Short title

Section 1 of the bill, as reported, would provide that the bill may be cited as the “Science and Technology Emergency Mobilization Act”.

Section 2. Congressional findings and purpose

Section 2 of the bill, as reported, would set forth findings concerning the potential benefits of an organized system for harnessing and coordinating the Nation’s private-sector technology and science expertise in support of emergency response and prevention and state that the bill’s purpose is to enhance ongoing Administration efforts in that regard.

Section 3. Establishment of National Emergency Technology Guard

Section 3 of the bill, as reported, would provide for the creation of a database of private sector experts and for the establishment of NET Guard volunteer teams.

Specifically, section 3(a) of the bill, as reported, would direct the President to designate an appropriate department, agency, or office to establish a repository database of nongovernmental technology and science experts who have offered and can be mobilized to help Federal agencies in times of disaster. This is one of a number of provisions in S. 2037, as reported, that allows the President to choose an appropriate department, agency, or office to administer programs created by the legislation. The Committee wanted to provide the Administration with maximum flexibility to align these programs with related, ongoing efforts in a number of departments, agencies, and offices.

Section 3(b) of the bill, as reported, would direct the President to designate, within one year, an appropriate department, agency, or office which would be responsible for establishing application procedures for groups of individuals to seek official certification as NET Guard disaster response teams. The designated entity may be different from that designated in section 3(a). The entity may also develop a system to facilitate team formation by helping individuals locate potential team members. This subsection further specifies that the entity shall establish criteria for the formation of NET Guard teams, such as what expertise the teams must possess and what kind of training will be required. Once the criteria are established, the entity will certify and issue appropriate credentials to teams that satisfy those criteria. When members of certified NET Guard teams are called into action, they may be compensated for their time and travel expenses.

Section 3(c) of the bill, as reported, would authorize the entity designated in subsection (b) of this section to activate NET Guard teams in the event of a national disaster or emergency and to provide for access by team members to emergency sites. It also would authorize the entity to designate technology-related projects to improve emergency preparedness, such as the development and maintenance of the database created under subsection (a) of this section, and to seek volunteers from among the national emergency technology response teams to work on these projects on a temporary basis.

Section 4. Center for Civilian Homeland Security Technology Evaluation

Section 4(a) of the bill, as reported, would create a Center for Civilian Homeland Security Technology Evaluation (Center) within the Executive Branch. The President would have the discretion to determine where in the Executive Branch this Center should be located. Subsection (b) states that the Center would serve as a national clearinghouse for security and emergency response technologies, helping to match companies that have innovative technologies with government agencies who need such technologies. Subsection (c) would allow the Center to be modeled on the Technical Support Working Group (TSWG). The TSWG is an inter-agency forum managed by the Department of Defense that identifies, prioritizes, and coordinates interagency and international research and development requirements for combating terrorism. As part of its mission, TSWG analyzes numerous private-sector technology proposals related to counterterrorism. Subsection (d) would require the creation of an online portal, accessible through the FirstGov Internet website, to facilitate contact with the Center. Subsection (e) would specify that submission to or evaluation by the Center is not a prerequisite for Federal procurement decisions.

Section 5. Communications interoperability pilot projects

Section 5 of the bill, as reported, would direct the President to establish, within an appropriate department, agency, or office, a program for planning or implementation of interoperability of communications systems used by fire, law enforcement, and emergency preparedness and response agencies. Subsection (b) would require the head of the entity designated in subsection (a) to make grants

under the program of \$5 million each to seven different states for pilot projects. Grants would be made to the States which would be responsible for coordinating interoperability efforts including multiple local entities and jurisdictions. Subsection (c) would direct the head of the entity designated in subsection (a) to prescribe the criteria for eligibility for such grants.

Section 6. Reports

Section 6(a) of the bill, as reported, would direct the President to designate an appropriate department, agency, or office to prepare a report on 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 both the advantages and the disadvantages of developing a priority access system for existing commercial wireless networks, designating national emergency spectrum, and creating a specialized public safety communications network. The Committee expects that the entity conducting the study will consult closely with the wireless industry.

Section 6(b) of the bill, as reported, would direct the FEMA to prepare a report on potential legal barriers, if any, to the ability of Federal agencies to accept in-kind donations of technology and services. The Committee received informal indications that there may be some legal impediments that could hinder the effective use of such donations.

Section 7. Authorization of appropriations

Section 7(a) would authorize \$5 million for each of fiscal years 2003 and 2004 to carry out section 3. Section 7(b) would authorize \$35 million for fiscal year 2003 for the grants to communications interoperability pilot projects under section 5. Section 7(c) would authorize \$500,000 to the entity designated to carry out section 6(a).

Section 8. Emergency response agencies

Section 8 of the bill, as reported, would define the term “emergency response agency” as an agency providing any of the following services: law enforcement; fire services; emergency medical services; public safety communications (such as 911); and emergency preparedness.

CHANGES IN EXISTING LAW

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, the Committee states that the bill as reported would make no change to existing law.