

**Calendar No. 321**

109TH CONGRESS }  
*1st Session*

SENATE

{ REPORT  
109-204

WARNING, ALERT, AND RESPONSE  
NETWORK ACT

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R E P O R T

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND  
TRANSPORTATION

ON

S. 1753



DECEMBER 8, 2005.—Ordered to be printed  
Filed under authority of the order of the Senate of November 18, 2005

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SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED NINTH CONGRESS

FIRST SESSION

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### WARNING, ALERT, AND RESPONSE NETWORK ACT

DECEMBER 8, 2005.—Ordered to be printed

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

### R E P O R T

[To accompany S. 1753]

The Committee on Commerce, Science, and Transportation, to which was referred the bill (S. 1753) to establish a unified national hazard alert system, and for other purposes, having considered the same, reports favorably thereon with an amendment (in the nature of a substitute) and recommends that the bill (as amended) do pass.

#### PURPOSE OF THE BILL

The purpose of S. 1753 is to create a national alert system that will build upon current alerting capabilities to provide alerts to the public across a variety of media technologies to protect public safety. The bill will provide for the development and administration of a unified alerting system that will allow Federal, State, tribal and local officials to provide alerts to their communities across a variety of communication technologies. The bill aims to ensure that an individual will receive an alert of a pending threat regardless of their location or the communication technologies in use.

Additionally, as amended, the bill authorizes the National Oceanic and Atmospheric Administration (NOAA) to establish, operate, and maintain a dependable national tsunami warning system that would provide maximum tsunami detection capability for the nation. The system would build on the model established in the Pacific, and provide for its repair, expansion and modernization by the close of calendar year 2007. The system would include four components: an expanded and upgraded detection and warning sys-

tem, a Federal-State tsunami hazard mitigation program, a tsunami research program, and a modernization and upgrade program. In addition, the bill would direct NOAA to provide any necessary technical or other assistance to international efforts to establish regional systems in other parts of the world, including the Indian Ocean. The bill would authorize \$35 million for each of fiscal years 2006–2012 to carry out these activities.

## BACKGROUND AND NEEDS

### NATIONAL ALERTING PROGRAM

#### **Current Alerting Programs**

Currently Federal, State, and local governments use a variety of mechanisms to alert the public to threats from natural hazards, man-made accidents, and terrorist incidents. Most prominent among the alerting mechanisms is the Emergency Alert System that utilizes cable and broadcast television and radio to rebroadcast alerts to the listening public. Additionally, NOAA operates the NOAA All-Hazards Radio program that includes over 900 radio transmitters across the United States that broadcast alerts to specially configured devices.

Recently, many municipalities have begun operating their own alerting systems. These systems allow citizens to receive alerts over cell phones, email, and wireline communications from the government on events ranging from school closings to terrorist attacks. The wireless industry has also implemented a program that allows their customers to receive Amber Alerts as text messages over their cell phones.

#### **Limitations of Existing Programs**

Current alerting regimes suffer from 2 chief limitations: gaps in the penetration of the alerting capability both within and among communications technologies and the limited capability to target the alerts to a particular geographic region.

The new alerting programs that are being fielded by municipalities require citizens to “opt-in” to the program. Even with the best education efforts, large segments of the population are unaware of the system and unable to receive alerts. For example in the National Capital region there are only approximately 50,000 subscribers to mobile wireless alerts in a region of approximately 4 million people, most of whom own a wireless device and are very attuned to the threat of natural disasters and terrorist incidents. Similarly, although the NOAA All-Hazards Radio system broadcasts to over 98 percent of the population of the United States, only 17 percent of households own a receiver. While there are a number of alerting mechanisms available to the public, because of coordination and implementation problems, there is not a comprehensive and reliable alerting ability for emergency managers.

Beyond the difficulties associated with low penetration within affected populations, problems exist with some alerting tools not being able to target their alerts only to the population at risk. NOAA All-Hazard Radio, for example, sends alerts according to county boundaries. This causes significant problems when the county is very large and the threat is confined to a small geographic region in the county. It is particularly troublesome when the county is densely populated and large sections of the unaffected

population receive an alert. Traditional broadcast media only have the ability to provide an alert to all of their customers within their broadcast region. In addition, a significant problem develops when citizens begin to ignore the alerts because they are receiving numerous alerts that do not pertain to them.

#### **Tsunami Preparedness**

Tsunami are a fast-moving series of ocean waves generated by rapid, large-scale displacement of the seafloor which raises and/or lowers the water column above it. Such displacement is usually caused by submarine geologic activity such as volcanoes, earthquakes, or landslides. Variables affecting the size and power of tsunami include: the size and speed of the seafloor displacement, the depth of the water column above the displacement, the efficiency of the energy transfer from the earth's crust to the water column, and the shape of the shoreline and the seafloor along the coast where the waves reach land.

Tsunami can travel across open ocean at great speeds, sometimes over 600 miles per hour in very deep water. They can be only a few inches high and many miles long. As tsunami enter shallow water, their speed decreases and the wave height increases. This "shoaling effect" creates a larger, relatively slower wave that can cause massive damage in coastal areas and low-lying inland regions. Tsunami often appear as a rapidly moving tide, a series of breaking waves, or a bore wave (a step-like wave with a steep breaking front). Tsunami rarely cause the high, breaking waves which many people envision "tidal waves" look like. Behind the bore is a fast-moving flood that is capable of carrying extremely large and heavy pieces of debris. Strong tsunami-induced currents can lead to erosion of foundations around coastal structures. Finally, tsunami can result in significant loss of life.

Providing sufficient warning is crucial for minimizing the loss of life due to tsunami. NOAA is responsible for coordinating tsunami-related activities in the United States and works closely with the United States Geological Survey (USGS) and the National Science Foundation (NSF) to provide, respectively, seismographic information and science and research capabilities. NOAA also represents the United States as a member of the International Tsunami Warning System in the Pacific, the only international tsunami warning system. The operational center of the international system is located at the National Weather Service offices in Hawaii. The international system was established by the Intergovernmental Oceanographic Commission (IOC) of the United Nations Educational, Scientific, and Cultural Organization (UNESCO) in 1965. While the system can detect earthquakes through a global seismic network, it has tsunami forecasting and warning capability only for locations in the Pacific.

Tsunami preparedness requires systems to address detection and warning; research, education and preparedness; hazard mitigation; and international participation and cooperation. The U.S. tsunami warning program, first established in 1948, is run by NOAA through 2 tsunami warning centers, located in Hawaii and Alaska, which collate and analyze seismic data from the USGS, sea level data from numerous coastal monitoring stations, and pressure data from an array of 6 Deep-ocean Assessment and Reporting of Tsunami (DART) buoys.

Approaches and expectations for tsunami warning and preparedness differ depending upon whether a tsunami is of a local or distant origin. The greatest risk is posed by local tsunami, which may give residents only a few minutes to seek safety and are more devastating in impact. Tsunami of distant origin may give residents more time to evacuate threatened coastal areas, but there is greater need for timely and accurate assessment of the hazard to avoid costly false alarms. The National Tsunami Hazard Mitigation Program (NTHMP) is a Federal/State partnership consisting of NOAA, USGS, the Federal Emergency Management Agency (FEMA), and the States of Alaska, California, Hawaii, Oregon, and Washington. This program was established through Congressional action following the 1992 earthquake and tsunami off of California, for which no warning was issued because of outdated detection instrumentation and technology. The resulting NTHMP consists of 3 program areas: (1) warning guidance (relating to the detection system), (2) mitigation, and (3) hazard assessment.

NTHMP's mitigation efforts focus on preparing communities at risk before a tsunami strikes to lessen the impact. This includes educating the community, local businesses, planners, emergency managers and government officials on the risk of tsunami, tsunami hazard signs, evacuation routes, and how to recognize and respond to signs of an impending tsunami. In addition, under NOAA's voluntary Tsunami Ready Program, a community is certified as "Tsunami Ready" based on its establishment of an emergency operations center, the ability to disseminate tsunami warnings, a tsunami hazard plan, community awareness, and the ability to receive multiple tsunami warnings. As of March 9, 2005, there were 16 Tsunami ready communities located throughout the West Coast States and Hawaii.

Another mitigation facet is hazard guidance, which develops inundation mapping to determine areas prone to flooding from tsunami. This goal of developing inundation maps for every at-risk coastal community is carried out by NOAA's Center for Tsunami Inundation Mapping Efforts (TIME), which works closely with the States to develop mapping standards, quality control criteria, and certification requirements.

Continuous improvement of tsunami warnings, mitigation, and hazard preparedness efforts require a coordinated research program. NOAA's Tsunami Research Program is headquartered at the Pacific Marine Environmental Laboratory in Seattle, Washington. The program provides research support to all aspects of the tsunami program in the U.S. This includes the continued development of the DART buoy system; inundation modeling for TIME; maintaining a database of tsunami events and data from these events; tsunami modeling at the Pacific Disaster Center and the Maui High Performance Computer Center; and other research related to the NTHMP.

The U.S. system needs to be repaired and expanded to improve detection and warning accuracy, and to cover areas not currently included. The overall quality of the DART buoys' performance has decreased 50 percent over the past 15 months. This reduced coverage impaired NOAA's ability both to detect and warn of a tsunami and also identify costly false alarms. Strengthening reliability of the detection system, and further development of a real-time

two-way warning system will greatly contribute to the security and well-being of U.S. coastal communities. Improved mapping and community preparedness is also a key component of any effective warning system, and not all vulnerable communities have been determined to be tsunami-ready.

On January 14, 2005, the Administration announced its plan for an improved tsunami warning system throughout the Pacific Ocean, the Caribbean Sea, and the mid-Atlantic Ocean, including increased preparedness and research activities. On January, 24, 2005, Senator Inouye and Senator Stevens introduced S. 50, the Tsunami Preparedness Act. The Committee reported the bill, with an amendment to create a coastal hazard vulnerability program on February 2, 2005. The Senate passed S. 50 on July 1, 2005.

#### SUMMARY OF PROVISIONS

S. 1753, the Warning, Alert and Response Network Act, would create a National All Hazards Alert System. The bill, as amended, also would provide for the creation of the Tsunami Warning Program.

The National Alert System, created under the WARN Act, would ensure that regardless of where individuals are or what kind of communication technologies they are using, they would receive a life-saving alert. Alerts would be transmitted in response to all threats to public safety, including natural disasters, man-made accidents, and terrorist incidents.

The WARN Act would establish a network for the transmission of alerts across a broad variety of communications technologies, including wireless communications devices (cell phones, Blackberries, etc.), the Internet, digital, analog, cable, and satellite television, and satellite and terrestrial radio, as well as non-traditional media such as sirens and “radios-on-a-stick.” Alerts would only be allowed for hazards that pose a grave risk to public health and safety. This would avoid over-activation of the system and individuals ignoring alerts (the “car-alarm” syndrome).

The system would provide Federal, State, and local emergency managers with a tool to input alerts into the system and have them directed out to a geographically targeted section of the population. The legislation would require that alerts provide individuals with instructions on what to do in response to the threat, so as to trigger protective action, not panic.

The WARN Act would establish a grant program to provide assistance to remote communities to install sirens and other devices to alert communities, where penetration of the telecommunications infrastructure may not be high, ensuring that all Americans are protected.

#### **Tsunami Preparedness**

Title II of the bill contains the text of S. 50, the Tsunami Preparedness Act, as passed by the Senate on July 1, 2005. The bill would authorize NOAA to establish, operate, and maintain a dependable national tsunami warning system that would provide maximum tsunami detection capability for the nation. The provisions of title II would create a system that builds on the model established in the Pacific, and provide for its repair, expansion, and modernization by the close of calendar year 2007.

The system would include 4 components: (1) an expanded and upgraded detection and warning system for both the Pacific and the Atlantic/Caribbean/Gulf of Mexico regions; (2) a modernization and upgrade program for the U.S. system (including immediate repair of deep ocean buoys and contractor oversight); (3) an expanded Federal-State Tsunami Hazard Mitigation Program to improve community outreach and preparedness; and (4) a tsunami research program to develop improved detection, forecasting, and communications tools. It also would establish an Integrated Coastal Vulnerability and Adaptation Program focused on improving the resilience of coastal communities to natural hazards and disasters. In addition, the legislation directs NOAA to provide any necessary technical or other assistance to international efforts to establish regional systems in other parts of the world, including the Indian Ocean. Annual appropriations of \$35 million would be authorized for fiscal years 2006 through 2012 for the tsunami programs. Five million dollars would be authorized annually for the integrated coastal hazards program.

#### LEGISLATIVE HISTORY

The Warning, Alert and Response Network Act (S. 1753) was introduced by Senator DeMint on September 22, 2005, and referred to the Senate Committee on Commerce, Science, and Transportation. There are 7 cosponsors of S. 1753: Senators Nelson of Nebraska, Stevens, Inouye, Lott, Vitter, Landrieu, and Snowe. On October 20, 2005, the Committee considered the bill in open Executive Session. Senator Stevens offered an amendment in the nature of a substitute, and Mr. DeMint offered a manager's amendment to the substitute. Mr. DeMint's amendment included tribal governments in the national alert system, ensured that the needs of older Americans are incorporated into the system, provided for the utilization of the non-commercial sustaining announcement program to publicize the national alert system, provided greater integration of the National Alert Office and the research and development and testing programs, and integrated communications infrastructure needs into the disaster planning process. The Committee, without objection, adopted the substitute and the manager's amendments and ordered S. 1753 be reported as amended.

#### 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:

DECEMBER 1, 2005.

Hon. TED STEVENS,  
*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. 1753, the National Alert System and Tsunami Preparedness Act.



If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contacts are Deborah Reis and Melissa Z. Petersen.

Sincerely,

DOUGLAS HOLTZ-EAKIN.

Enclosure.

*S. 1753—National Alert System and Tsunami Preparedness Act*

Summary: S. 1753 would authorize the appropriation of \$40 million a year for each of the fiscal years 2006 through 2012 for a global tsunami warning and mitigation program administered by the National Oceanic and Atmospheric Administration (NOAA). The bill also would authorize NOAA to oversee the development of a National Alert System (NAS)—a new communications network for transmitting emergency information to the public—but funding for that program would be contingent upon the enactment of separate legislation. (That prospective funding would be provided by title III of S. 1932, the Deficit Reduction Omnibus Reconciliation Act of 2005, as passed by the Senate on November 3, 2005.)

CBO estimates that implementing S. 1753 would cost \$124 million over the 2006–2010 period and another \$156 million after 2010, assuming appropriation of the specified amounts for the tsunami warning and mitigation program. Enacting S. 1753 would not have a significant impact on direct spending. The bill would not affect revenues. The provisions in S. 1753 regarding a NAS would have no budgetary impact until another law is enacted to fund the activities.

S. 1753 contains an intergovernmental mandate as defined in the Unfunded Mandates Reform Act (UMRA); however, CBO estimates that the costs to the governmental entities would be small and would not exceed the threshold established in that act (\$62 million in 2005, adjusted annually for inflation). A provision in the bill also would compensate governmental entities for costs incurred in complying with the mandate.

S. 1753 would impose private-sector mandates as defined in UMRA on certain licensees and permittees, including all commercial mobile service providers and nonprofit television broadcasters. Based on information provided by industry and government sources, CBO expects that the aggregate direct costs of complying with those mandates would be minimal compared to the annual threshold established by UMRA for private-sector mandates (\$123 million in 2005, adjusted annually for inflation).

Estimated cost to the Federal Government: The estimated budgetary impact of S. 1753 is shown in the following table. The costs of this legislation fall within budget function 300 (natural resources and environment).

	By fiscal year, in millions of dollars—				
	2006	2007	2008	2009	2010
CHANGES IN SPENDING SUBJECT TO APPROPRIATION					
Title II—Tsunami Preparedness					
Authorization Level .....	40	40	40	40	40
Estimated Outlays .....	8	16	20	40	40

Note.—Title I of S. 1753 would provide statutory guidelines for a National Alert System that would be funded by the Digital Transition and Public Safety Act of 2005, which was included as title III of S. 1932, the Deficit Reduction Omnibus Reconciliation Act of 2005, as passed by the Senate. That legislation would provide \$250 million in direct spending authority for such a program.

Basis of estimate: For this estimate, CBO assumes that S. 1753 will be enacted during fiscal year 2006 and that the entire amounts authorized will be appropriated for each year. Estimated outlays are based on historical spending patterns of similar programs.

#### *Tsunami preparedness*

Title II of the bill would direct NOAA to establish and implement new programs to research, detect, monitor, and mitigate the effects of tsunamis in the Pacific and Atlantic oceans. The bill would direct the agency to upgrade and improve existing systems and data management efforts and would authorize it to provide technical and financial aid to those affected by tsunamis, including local and international entities. For those purposes, the bill would authorize the appropriation of \$40 million for each of fiscal years 2006 through 2012, including \$8 million annually for pilot projects to assess the vulnerability of coastal areas of the United States. Some of the costs of carrying out a program for tsunami warning and mitigation may be offset by reimbursements from other countries participating in the program, but CBO estimates that such reimbursements would be less than \$500,000 annually.

#### *National Alert System*

Title I of S. 1753 would authorize NOAA to establish a National Alert System, which would coordinate existing emergency communication systems and use multiple technologies for communicating emergency information. Under S. 1753, funding for the NAS program would be contingent on the enactment of separate legislation. That other legislation—the Digital Transition and Public Safety Act of 2005, which was included as title III of S. 1932, the Deficit Reduction Omnibus Reconciliation Act of 2005 as passed by the Senate—would allow the Department of Commerce to spend \$250 million for a NAS program without further appropriation.

S. 1753 would not authorize appropriations for the NAS program, nor would it provide direct spending authority for the activities. If both S. 1753 and S. 1932 are enacted, however, S. 1753 could affect the timing of direct spending under the authority provided by S. 1932 because it would set statutory guidelines for implementing the NAS. For example, the bill would direct NOAA to certify and train public agencies having access to the system; reimburse broadcasters for certain expenses related to the program; and fund research and development, public outreach, and grants to remote communities to implement the system. Such directives could change the timing of program outlays if the nature of those activities differed from those that would have been undertaken by the department in the absence of this bill.

Estimated impact on State, local, and tribal governments: S. 1753 contains an intergovernmental mandate as defined by UMRA. The bill would require public broadcasting stations to install necessary equipment to enable the reception, relay, and retransmission of alerts by the National Alert System. CBO estimates that aggregate costs for those stations to comply would require the National Alert Office to compensate public broadcasting stations for costs incurred in complying with the mandate.

S. 1753 also would establish and implement new programs to research, detect, monitor, and mitigate the effects of tsunamis in the

Pacific and Atlantic oceans. Coastal states and local communities would benefit from the programs and grants authorized in this bill; any costs they face to participate in those programs would be incurred voluntarily.

Estimated impact on the private sector: S. 1753 would impose private-sector mandates as defined in UMRA on certain licensee and permittees, including all commercial mobile service providers and nonprofit television broadcasters. Based on information provided by industry and government sources, CBO expects that the aggregate direct costs of complying with those mandates would be minimal compared to the annual threshold established by UMRA for private-sector mandates (\$123 million in 2005, adjusted annually for inflation).

Section 103 of the bill would require any licensee providing commercial mobile service to make an election of whether or not they will participate in the transmission of National Alert System alerts. Currently, mobile service providers are not required to make this election. Thus, this provision would constitute a new enforceable duty on the private sector.

Those providers choosing not to participate would be required to inform consumers at the point of sale with a clear disclosure stating that alert transmissions will not be provided by their service. Although not specified in the legislation, government sources have explained that such disclosures could take many forms such as written documents, contracts, signs, etc. CBO estimates that the direct costs for such disclosures would be minimal.

Those providers electing to participate in the transmission of NAS alerts would be required to follow future FCC regulations and certify to the commission that they will follow the standards and protocols implemented by the National Alert Office. Due to uncertainty about future rulemaking and protocols, the direct costs of participating in NAS alert transmissions is unknown and those costs could be greater than the option of not participating. CBO assumes that those providers electing to participate in such transmission would do so because the net benefit of participating would be greater than that of not participating.

Section 103 also would require nonprofit broadcasting stations to install necessary equipment to enable the reception, relay, and retransmission of alerts by the National Alert System. According to government and industry sources, most nonprofit broadcasting stations currently broadcast digital transmissions and could transmit such alerts by purchasing an alerts receiver. Consequently, CBO estimates that the aggregate costs for those stations to comply would be minimal. The bill also would require the National Alert Office to compensate public broadcasting stations for costs incurred in complying with this mandate.

Previous CBO estimates: On March 17, 2005, CBO transmitted a cost estimate for S. 50, the Tsunami Preparedness Act, as ordered reported by the Senate Committee on Commerce, Science, and Transportation on March 17, 2005. S. 50 is nearly identical to title II of S. 1753, which addresses tsunami preparedness programs to be carried out by NOAA. The estimated costs of the two versions of the legislation are identical except for 2006, reflecting a later assumed enactment date for S. 1753. Title II of S. 1753 is also similar to H.R. 1674, the United States Tsunami Warning and Education

Act, as ordered reported by the House Committee on Science on May 4, 2005. Our estimate for the House bill, transmitted on May 12, 2005, reflected the lower authorizations levels of that version.

On October 24, 2005, CBO transmitted a cost estimate for the Digital Transition and Public Safety Act of 2005, as approved by the Senate Committee on Commerce, Science, and Transportation on October 20, 2005. The spending authorized in S. 1753 for the National Alert System would be derived from a fund that would be created by the Digital Transition and Public Safety Act of 2005, which was included as title III of S. 1932, the Deficit Reduction Omnibus Reconciliation Act of 2005, as passed by the Senate on November 3, 2005.

Estimate prepared by: Federal Costs: Deborah Reis and Melissa Z. Petersen. Impact on State, Local, and Tribal Governments: Lisa Ramirez-Branum. Impact on the Private Sector: Craig Cammarata.

Estimate approved by: Peter H. Fontaine, Deputy Assistant Director for Budget Analysis.

#### 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

The bill would provide for the voluntary participation in a national all-hazards alert system. The bill would only effect individuals to the extent that a communications technology they utilize participates in the National Alert System. The bill would require emergency management personnel seeking credentials under section 103 of the Act, to comply with regulations on the appropriate use of the National Alert System.

##### ECONOMIC IMPACT

S. 1753 would not have an adverse economic impact on the nation's economy. The Act would create a national all-hazards alerting system and protect citizens from the impact of tsunamis. The legislation authorizes the expenditure of \$250,000,000 from the Digital Transition and Public Safety Fund in accordance with section 5 of the Digital Transition and Public Safety Act of 2005.

##### PRIVACY

The reported bill would have little, if any, impact on the personal privacy of U.S. citizens.

##### PAPERWORK

The reported bill should not significantly increase paperwork requirements for individuals and businesses. Section 104(c) of the Act would require the National Alert Office to submit an annual report to the President and Congress and a 5-year report to the President and Congress.

## SECTION-BY-SECTION ANALYSIS

*Section 101. Short title.*

Section 101 would establish the short title of the bill as the “Warning, Alert, and Response Network Act.”

*Section 102. National Alert System.*

Section 102 would provide for the establishment of a national alerting system. The section also describes the functional characteristics and capabilities of the system. It is the Committee’s intention that the system leverage and enhance the existing warning capabilities of the Federal, State and local governments. The Committee believes the system should incorporate the broadest variety of communications technologies, including digital and analog broadcast radio and television, cable and satellite television, satellite and terrestrial radio, wireless communications—including personal digital assistants, cellular telephones, and pagers—wireline communications, the Internet, as well as solutions such as sirens and indoor and outdoor alerting technologies that utilize intelligible voice messaging. Additionally, the system should incorporate the existing emergency alert system, NOAA All-Hazards Radio system, as well as systems deployed by State, tribal and local governments. Finally the legislation anticipates that technology will evolve and instructs that the system be designed in a manner that allows for the inclusion of new technologies in the future.

The Committee encourages the National Alert Office to design the National Alert System in such a manner that the alerts transmitted across the system are capable of being retransmitted by satellite radio licensees. Additionally, the Committee encourages the National Alert Office to design the National Alert System in such a manner as to allow alerts to be retransmitted to personal computers. The personal computing industry should proactively engage the National Alert Office to ensure that the unique needs of the personal computing community are taken into account in the system’s architecture and design. Finally the Committee understands that traditional broadcast television and radio play a crucial role in alerting individuals to threats to their community. It is the expectation of the Committee that the National Alert System should be designed to leverage existing resources that have already been deployed by broadcasters for transmission of emergency alert system messages.

Section 102(a) would establish the National Alert System.

Section 102(b) would outline the functions of the system, which are to: (1) allow appropriately credentialed Federal, State or local officials to use the system for threats that pose an imminent risk to public health or safety; (2) ensure coordination with existing warning systems; (3) ensure that the system is designed in such a manner as to target alerts to a small population and avoid over-alerting; and (4) ensure the system incorporates a broad variety of media so that the public is exposed to an alert regardless of what type of communications technologies they use.

Section 102(c) would detail the capabilities of the system, which include: (1) the requirement that the system incorporate multiple technologies and be capable of incorporating future technologies; (2) the capability of being used by individuals with disabilities; (3) lack

of interference and incorporation of existing alert systems; (4) the use of multiple technology platforms such as the Internet, cell phones, blackberries, etc.; (5) being capable of including technologies to serve rural and remote communities; (6) the capability of providing alerts in languages other than English; and (7) a design to promote community preparedness and response.

Section 102(d) would outline that the system should include alert mechanisms that do not require public activation and that alerts should be sent out over multiple communication technologies.

Section 102(e) would direct the Director of the National Alert System to ensure that the National Alert System complements the existing Federal alerting systems, including the Emergency Alert System (EAS) and NOAA All Hazards Radio.

Section 102(f) would direct the Federal Communications Commission (FCC) to conclude its pending proceeding on the Digital Emergency Alert System, would allow the Secretary of Homeland Security and the Governors to access EAS, and would ensure that EAS alerts are also transmitted in languages other than English.

### *Section 103. Implementation and use.*

Section 103 would provide guidelines for the implementation of the system, participation in the system, and guidelines for its use.

Section 103(a) outlines the process for credentialing emergency managers to use the system. Under this section the National Alert Office would establish a procedure to provide Federal, State, tribal, and local government officials with credentials access to the National Alert System to send alerts to the public. The legislation requires the head of a Federal agency to submit the names of individuals they believe need to access the system (e.g. NOAA would submit to the National Alert Office the names of meteorologists who need the authority to transmit alerts across the system). The governor of a State or the leader of a federally-recognized tribe would transmit the names of individuals who they believe need to have access to the system. The Committee expects that the governors would transmit to the National Alert Office for approval both recommendations from the various political subdivisions within their State and the names of officials with statewide authority. The Committee encourages the governors to submit the names of relevant and appropriate fire chiefs—along with other public safety personnel—for credentialing, so that the chiefs may continue to issue warnings that are within their purview. While the National Alert Office should give deference to the requests from the governors, there is an expectation that the requests will be limited to relatively senior individuals within the emergency management community.

This section also would charge the National Alert Office with outlining what group of individuals would have credentials and what authority those credentials would grant. The credentials would be limited to the individual's geographic area of responsibility (e.g. a meteorologist assigned to a Weather Forecast Office in Sterling, Virginia will not have the authority to issue an alert in California), as well as their subject matter area of expertise (e.g. an emergency manager responsible for hazardous materials response would not have the authority to issue an alert regarding severe weather). The Committee understands that emergency man-

agement personnel are often responsible for responding to a variety of threats and the credentialing procedure should accommodate that reality.

Finally, training would be a crucial component of the responsible and effective use of the system. While the system has the potential to save lives, its use in situations where life is not in jeopardy could degrade the effectiveness of the warning system. To that end, the legislation would require that users of the system undergo training to receive their credentials and periodic training to maintain their credentials.

Section 103(b) would task the Office with outlining the class of events that can trigger an alert to be sent across the system. Because of the serious threat to the system posed by over-use, the Office should craft regulations that ensure that the alerts are only transmitted during serious emergency circumstances, and for testing the system. It is the Committee's expectation that the Office would craft regulations that provide clear guidance to credentialed users, and the public, on when an alert will and will not be sent across the system. Specifically the Committee would anticipate that the Office may want to allow the use of alerts to publicize the provision of life-saving resources such as emergency shelter during an evacuation or water and ice after a disaster.

Finally the section allows the establishment of a procedure for the transmission of non-critical alert information, such as traffic, school closure, and non-severe weather information. The transmittal of optional alerts should proceed in a manner that does not interfere with the transmission of emergency alerts. Additionally, receipt of optional alerts should require an individual to elect to receive those alerts. Alerts under this section could include emails distributed by a local school district, the subscription to a fee-based, value-added service, or the receipt of messages on a wireless device which could be treated similar to other non-emergency related traffic.

Section 103(b) would outline requirements for emergency alerts that would be transmitted across the system. The section would outline that only alerts that pose an imminent threat to public safety should be transmitted across the system. The section also would instruct the Director of the National Alert Office to promulgate regulations that outline what type of alerts may be transmitted across the system and provide guidance on the content of these alerts. The section also would provide that the backbone of the system could be used for the retransmission of alerts that do not deal with imminent threats to public health and safety, but any such alerts must be transmitted in a manner that does not interfere with an emergency alert. In addition, the section would specify that individuals would have to take some affirmative action, such as subscribing to a service, to receive these alerts.

Section 103(c) would task the National Alert Office with designing a system that would provide a mechanism for emergency managers at all levels of government to input appropriate alerts into the system and have them distributed through the various delivery mechanisms. This could include the integration of software tools into disaster management and weather forecasting software, or a secure web portal where appropriate alerts could be entered.

Section 103(c) would require that there be multiple access points for emergency managers to input alerts into the system and that the system be redundant and secure.

Section 103(d) would describe a two-fold process in which the FCC is required to initiate a proceeding, after technical standards have been adopted by the National Alert Office, to allow wireless providers to participate in the National Alert System and retransmit alerts. After the FCC issues an order, wireless providers would elect either to provide the alerts to all their customers, or not to participate. If they do not participate, they must disclose clearly and conspicuously at the point of sale of their devices that they do not participate. If participating providers want, they may provide mechanisms for wireless devices to allow customers to block most alerts from the system. The section also provides for the Commission to develop a procedure for carriers to withdraw from the system and enter at a date later than the first election.

Finally, section 103(d)(3) would provide a mechanism for the FCC to institute a proceeding similar to that outlined in section 103(d)(1) and (2) for licensees other than those covered by section 332(d)(1) of the Communications Act of 1934 (47 U.S.C. 332(d)(1)), who would serve significant portions of the population and would be logical providers of alerts through the National Alerting System.

Section 103(d) would detail how wireless providers would elect to participate in the system. The section would provide a voluntary system where wireless providers decide whether or not they wish to offer their customers alerts through the National Alerting System. Under this subsection: (1) 60 days after the National Alert Office adopts the technical standards for the system, the FCC would initiate a proceeding to allow a commercial mobile service licensee to transmit System alerts and would require those who elect not to participate to disclose to their customers in a clear and conspicuous manner that the devices they sell would not transmit alerts; and (2) within 30 days of the conclusion of the FCC proceeding, wireless carriers would file an election with the FCC indicating whether or not they wish to transmit alerts. If they elect to participate, they would agree to do so in a manner consistent with the standards and protocols of the system and periodically test their equipment. The section also clarifies that carriers would have the authority to advertise that they transmit alerts and would set up a procedure for providers to withdraw from or enter the system at a later date. The section would give the carriers the authority to install technology in their wireless devices that would allow customers to block most alerts if they wish. This section also would provide the FCC with the authority to expand the class of licensees participating beyond just commercial mobile service to other technologies if necessary.

Section 103(e) would build on the work of the Integrated Public Alert and Warning System (IPAWS) pilot project which uses a portion of the bandwidth used by digital public television licensees to transmit alerts. This section would require such licensees and permittees to install necessary equipment for the purpose of broadcasting alerts which would then be received and retransmitted by the communication technologies contemplated by the Act to their customers.



Section 103(e) would provide for the use of digital public television towers to serve as a backbone for the distribution of alerts. Public television stations have agreed to segregate a portion of their broadcast spectrum for broadcast of Internet protocol formatted alerts, which would then be received and retransmitted by various communication providers.

Section 103(f) would promote industry participation in the National Alert System by protecting participants from liability related to “any act or omission related to any harm from the transmission of, or failure to transmit” an alert. This protection could cover: (1) the transmission of, or failure to transmit, a System alert; (2) incorrect or confusing content of a System alert; (3) the failure, deficiency, or malfunction of any network, equipment, or facility of the provider or any other person, or the lack of coverage or network capacity in connection with the transmission or receipt of a System alert; (4) the failure to receive an alert because a subscriber’s service may have been suspended or discontinued for payment-related or similar reasons; (5) the unavailability of any network, equipment, or facility of the provider or any other person used to provide a System alert; and (6) a person’s election to activate a technology in their devices to block alerts from the National Alert System.

To ensure that the system works appropriately, section 103(g) would provide for a testing regime to be administered by the Director of the Alert Office.

#### *Section 104. National Alert Office.*

Section 104(a) would provide for the establishment of a National Alert Office: (1) within NOAA; (2) led by a Director with significant emergency alerting experience; and (3) staffed by individuals with significant experience in the telecommunications industry and detailees from other Federal agencies. Additionally, the Committee stresses the need for the Office to have staff detailed to the Office from the Department of Homeland Security and the Federal Emergency Management Agency, so that the concerns and expertise of those agencies could be incorporated in the design, management, and operation of the system.

Section 104(b) would detail the functions and responsibilities for the Office which include: (1) the administration and operation of the system; (2) the implementation of the National Alert System Working Group’s recommendations on the technical aspects of the system; (3) that the Director of the Office ensure that the system is available only to credentialed personnel; (4) that it provide geographically targeted alerts; (5) that alerts are verified before transmission and comply with adopted protocols and standards; and (6) that the security of the system and the various alerts is maintained.

Section 104(c) would require the Office to keep Congress abreast of its operations and plans by publishing annual reports and a 5-year plan.

Section 104(d) would task GAO to audit periodically the National Alert Office and tasks the Alert Office to respond in its annual report to any adverse findings in the GAO audit.

*Section 105. National Alert System Working Group.*

Section 105 would establish the National Alert System Working Group. The section would outline a procedure where a diverse group of experts, with extensive practical experience in their area of expertise, would develop detailed recommendations for the protocols and standards for the system, procedures for verifying, modifying and canceling alerts transmitted across the system, guidelines for the technical capabilities of the system as well as technical capabilities for priority transmittal of alerts, standards for equipment to be used by the system, and other technical issues that need to be addressed by the system.

The Working Group should pay particular attention to existing Federal, State and local systems and the associated protocols and procedures, and when appropriate, build upon those systems, procedures, and protocols that have demonstrated their effectiveness.

The Director would appoint members of the Working Group from 3 primary groups: Federal personnel; State, local and tribal personnel; and subject matter experts from industry. It is the Committee's expectation that all parties on the Working Group would work cooperatively to develop a solution that properly balances emergency management needs and technical capabilities.

**Federal Representatives**

Under section 105(b)(2) the Director would appoint representatives from Federal agencies that have significant responsibility for emergency management and public alerting. The Committee anticipates significant representation from the Department of Homeland Security and the Federal Emergency Management Agency. The Director also should draw upon the standards development expertise of the National Institute for Standards and Technology (NIST) when constituting the Working Group. The Committee expects that all agency representatives would participate fully in the Working Group and bring their particular expertise to the Working Group to ensure its effectiveness.

**State and Local Representatives**

Under section 105(b)(3) the Director of the National Alert Office would appoint State and local personnel with practical experience in emergency management. These individuals would provide important guidance on what type of capabilities the emergency management community would need to respond to a disaster. The section provides a mechanism for national organizations representing State and local governments and emergency management personnel to nominate individuals for inclusion on the Working Group. It is the Committee's expectation that individuals with extensive practical experience would be nominated and that the Director would show significant deference to those nominations.

**Tribal Representatives**

Under section 105(b)(4) the Director would appoint individuals from tribal governments upon the recommendation of the elected leader of a federally recognized tribe.

**Subject Matter Experts**

Section 105(b)(5) would direct the Director to appoint subject matter experts to the Working Group from various sectors of the telecommunications industry. The Director should appoint a suffi-

cient number of subject matter experts to ensure that there is broad representation of all sectors of the telecommunications industry who would be participating in the National Alert System. Specifically the Committee would expect that there be representation of wireless telecommunication providers, the public television stations, telecommunications hardware and software manufacturers and developers, manufacturers of mass notification systems using intelligible voice messaging, satellite radio and television, cable television, and members of the broadcast industry. The Committee does not intend this to be an exhaustive list and encourages the Director to appoint as many individuals as necessary to assure that there is the necessary expertise to ensure the effective design, development and operation of the system.

Section 105(c) would outline the duties of the Working Group. While the final authority for the adoption of the recommendations of the Working Group would rest with the Director, it is the expectation of the Committee that the Director consider carefully the recommendations of the Working Group. It is also the expectation of the Committee that the Working Group produce a detailed and practical plan that can be implemented by the Director to establish a National Alerting System.

Section 105(c)(2) would instruct the Working Group to work with the operators of nuclear facilities and other critical infrastructure facilities. For example, the Committee is aware that the Department of Defense and other entities use mass notifications systems with intelligible voice messaging over personal computing devices and intelligible speaker arrays to notify their personnel and the public at large with real-time information in an endangered area during emergencies. The Committee would encourage the Working Group to coordinate with these entities to the extent possible.

Section 105(d) would outline the procedure for the meeting of the Working Group.

Section 105(e) would ensure that the Working Group would have access to resources from Federal agencies and would be able to accept gifts and grants.

Section 105(f) would outline the rules for the Working Group and provide it with the authority to have subcommittees.

Section 105(g) would exempt the Working Group from the Federal Advisory Committee Act.

#### *Section 106. Research and development.*

Section 106 would establish an extramural research and development program lead by the Director of the National Alert Office to develop the technologies necessary to enable communication providers to retransmit alerts from the system. The research and development program should focus its primary attention on developing technologies for the delivery of geographically targeted alerts over wireless devices.

The Committee intends that the research and development program include a broad variety of participants in addition to participants from industry. The Committee stresses that NIST has extensive expertise that could be offered to the research and development program and would strongly encourage the National Alert Office to work with NIST to ensure their participation.

The Committee also notes that there is a lack of research into the content of an alert and how to draft an alert effectively so that its direction would be heeded by the public. Section 106(b)(2)(C) would provide the authority and direction to conduct a research program to increase the understanding of and response to warnings. The Committee encourages the Office to conduct a program of sociological and behavior research into the response to warnings and alerts to ensure the most effective response to National Alert System alerts.

Section 106(b) would detail the functions of the research and development program specifying that it may include industry, government and academia, and that the research program should develop innovative technologies, enhance participation, improve response to warnings and enhance the integration of the alert system into local community emergency management programs.

Section 106(c) instructs the research program to take advantage of the expertise of NIST.

*Section 107. Grant program for remote community alert systems.*

Section 107(a) would instruct the Administrator of NOAA to establish a grant program to provide for the installation of technologies in remote communities to ensure that they are effectively alerted. This could include, for example, the installation of sirens in rural communities or the installation of radio-receiving sirens on beaches to alert vacationers.

Section 107(b) would establish the procedures for efficient management and execution of the grant program.

Section 107(c) sunsets the program after 5 years.

*Section 108. Public familiarization, outreach, and response instructions.*

Section 108 would provide the National Alert Office with the authority to conduct a public outreach program to familiarize the public with the National Alert System. The Committee would encourage the Office to develop a program that utilizes the various outreach tools specified in the bill, as well as other tools they deem appropriate, in a manner that is most effective and has the highest impact. The Committee has no preference for any one outreach mechanism and encourages the Office to craft an outreach program that best informs the public.

*Section 109. Telecommunications infrastructure restoration, preparedness, and response.*

Section 109 outlines procedures for providing for the prompt and effective restoration of emergency services in the wake of a disaster and provides a planning mechanism to ensure that communications infrastructure is part of the disaster planning process.

*Section 110. Definitions.*

Section 110 defines Director, Office, National Alert System, and Working Group.

*Section 111. Funding.*

Section 111 would provide for funding to be made available from the proceeds from the auction of spectrum as provided in S. 1932,

the Deficit Reduction Omnibus Reconciliation Act of 2005. The Committee expects that after research and development and establishment of the system occur that NOAA would provide funding for the operation and maintenance of the system in their annual budget request.

*Section 201. Short title.*

Section 201 would establish that title II of the bill shall be referred to as the “Tsunami Preparedness Act.”

*Section 202. Findings and purposes.*

Section 202(a) would set forth the findings for the Act.

Section 202(b) would set forth the purposes of the act, which are to: (1) improve tsunami detection, forecast, warnings, notification, preparedness, and mitigation in the United States and elsewhere in the world; (2) improve the existing Pacific Tsunami Warning System and expand detection and warning systems to other vulnerable States and United States territories, including the Caribbean/Atlantic/Gulf region; (3) increase and accelerate mapping, modeling, research, assessment, education, and outreach efforts; (4) provide technical and other assistance to speed international efforts to establish regional tsunami warning systems in vulnerable areas worldwide; and (5) improve Federal, State, and international coordination for tsunami and other coastal hazard warnings, and preparedness.

*Section 203. Tsunami detection and warning system.*

Section 203(a) would direct the Administrator of NOAA to operate regional tsunami warning systems for the Pacific Ocean region and the region encompassing the Atlantic Ocean, Caribbean, and Gulf of Mexico.

Section 203(b) would state that the system would consist of both a Pacific tsunami warning system, to cover the entire Pacific Ocean area, including the Western, Central, North, Eastern, South, and Arctic areas, as well as an Atlantic and Caribbean system. The Atlantic and Caribbean system would cover areas that the Administrator determines to be geologically active or have the potential for geological activity, and pose measurable risks of tsunamis for States along the coastal areas of the Atlantic Ocean or the Gulf of Mexico. The section also would state that the system would: (1) utilize an array of deep ocean detection buoys; (2) include an associated tide gauge system; (3) include any other sensors needed for tsunami and weather warnings and forecasts; (4) provide for cooperation between NOAA and USGS; (5) provide for information and data processing through the tsunami warning centers; (6) be integrated into United States and global ocean and earth observing systems, including the Global Earth Observing System of Systems; and (7) provide an infrastructure, building on local systems, for at-risk tsunami communities that supports rapid and reliable alert notices to the public. This section also would direct the Administrator to leverage assistance and assets of the U.S. Coast Guard and U.S. Navy in deploying and maintaining detection buoys.

Section 203(c) would direct the Administrator to establish tsunami warning centers to provide a link between detection and warning systems and the tsunami hazard mitigation program, in-

cluding the Pacific Tsunami Warning Center in Hawaii and the West Coast/Alaska Tsunami Warning Center in Alaska. The responsibilities of these centers would include: (1) continuous monitoring of data from seismological stations, deep ocean buoys, and tidal monitoring stations and providing such data to the national tsunami archive; (2) evaluating earthquakes that have the potential to generate a tsunami; (3) evaluating other deep ocean buoy and tidal monitoring station data; and (4) disseminating information and warning bulletins for local and distant tsunamis.

Section 203(d) would direct the Administrator to maintain a national and regional data management system to address the data requirements of the tsunami detection and monitoring system including: (1) quality control and assurance; (2) archival and maintenance of data; (3) support the integration of data from the tsunami observation system with data from other observation systems; and (4) support the development and access of data products to the assessment and adaptation programs covered in section 208.

*Section 204. Tsunami hazard mitigation program.*

Section 204(a) would authorize the Administrator to conduct a community-based tsunami hazard mitigation program to improve tsunami preparedness in at-risk areas.

Section 204(b) would require the Administrator to establish a coordinating committee consisting of representatives of NOAA, USGS, NSF, NIST, and affected coastal States and territories. This section envisions the inclusion of State, local and non-governmental entities, such as academic institutions, in the program.

Section 204(c) would set forth the components of the tsunami hazard mitigation program, which would: (1) improve the quality and extent of inundation mapping; (2) promote and improve community outreach and education networks and programs; (3) integrate tsunami awareness, preparedness and mitigation programs into ongoing hazard warnings and risk management programs in affected areas; (4) promote the adoption of tsunami warning and mitigation measures by Federal, State, tribal, and local government and non-government entities; (5) develop tsunami specific rescue and recovery guidelines; (6) require budget coordination through the Administration to ensure that participating agencies provide necessary funds; and (7) provide for periodic external review of the program.

*Section 205. Tsunami research program.*

Section 205(a) would require the Administrator to establish, in coordination with other agencies and academic institutions, a tsunami research program to develop detection, prediction, communication, and mitigation science and technology that supports tsunami forecasts and warnings. This program would include sensing techniques, tsunami tracking, and forecast modeling to: (1) help determine whether an earthquake or seismic event will result in a tsunami, and the likely path, severity, duration and travel time of a tsunami; (2) develop techniques and technologies that may be used to quickly and effectively communicate tsunami warnings and forecasts; (3) develop techniques and technologies to support evacuation products; and (4) develop techniques for utilizing remote sensing technologies in rescue and recovery situations.

Section 205(b) would direct the Administrator, in consultation with other appropriate Federal agencies, to investigate the potential for improved technology for tsunami and other hazard warnings to the public.

*Section 206. Tsunami system upgrade and modernization.*

Section 206(a) would direct the Administrator to: (1) authorize the direct and immediate repair of existing deep ocean detection buoys; (2) ensure the deployment of an array of deep ocean detection buoys; and (3) ensure expansion and upgrade of the tide gauge network.

Section 206(b) would set forth requirements for the Administrator in carrying out this section with respect to the transfer of technology, maintenance, and upgrades, including: (1) promulgating specifications and standards for forecast, detection, and warning systems; (2) developing and executing a plan for the transfer of technology from ongoing research to long-term operations; (3) ensuring the maintenance and operation of detection equipment; (4) obtaining priority treatment in budgeting for acquiring, transporting, and maintenance of tsunami detection system equipment; and (5) ensuring the integration of the tsunami detection system with other United States and global and coastal observation systems.

Section 206(c) would require that before appropriated amounts are obligated or expended for the acquisition of services for construction or deployment of tsunami detection equipment, the Administrator must certify to the Senate Committee on Commerce, Science, and Transportation, and the House of Representatives Committees on Science and Resources within 60 calendar days after the President submits the Budget of the United States that: (1) each contractor has met contract requirements; (2) that constructed equipment is capable of becoming fully operational without additional expenditures of appropriated funds; and (3) that there are no foreseeable delays in deployment and operation.

Section 206(d) would require that the Administrator notify the Senate Committee on Commerce, Science, and Transportation, and the House of Representatives Committees on Science and Resources of impaired regional detection coverage due to equipment or system failure, and significant contractor failures or delays in completing work associated with the tsunami detection and warning system.

Section 206(e) would require the Administrator to submit an annual report to the Senate Committee on Commerce, Science, and Transportation, and the House of Representatives Committee on Science, on the status of the tsunami detection and warning system.

Section 206(f) would require the National Academy of Sciences to review the tsunami detection, forecast, and warning system, and transmit a report on its findings and recommendations to the Senate Committee on Commerce, Science, and Transportation, and the House of Representatives Committee on Science within 24 months after the date of enactment.

*Section 207. Global tsunami warning and mitigation network.*

Section 207(a) would require the Administrator, in coordination with the other members of the United States Interagency Committee of the National Tsunami Mitigation Program, to provide technical assistance and advice to the Intergovernmental Oceanographic Commission of UNESCO, the World Meteorological Organization, and other international entities, as part of international efforts to develop a fully functional global tsunami warning system.

Section 207(b) would direct the Administrator to establish and operate an International Tsunami Information Center (Center) for all nations participating in the International Tsunami Warning System of the Pacific and other nations participating in UNESCO's global tsunami warning system. The Center's responsibilities would include: (1) monitoring international tsunami warnings in the Pacific; (2) assisting member States in establishing their own tsunami warning systems; (3) maintaining a library of tsunami related materials for use by the global scientific community; and (4) dissemination of tsunami related information.

Section 207(c) would direct the Administrator to give priority to assisting nations in identifying vulnerable coastal areas, creating inundation maps, obtaining and designing detection and reporting equipment, and establishing communication and warning networks. It also states that the Administrator may establish a process for the transfer of detection and communication technology to affected nations in order to establish an international tsunami warning system and that the Administrator would provide technical and other assistance to support international tsunami education, response, vulnerability, and adaptation programs.

Section 207(d) would prohibit the Administrator from providing assistance for any region unless all affected nations in that region participating in the tsunami warning network agree to share relevant data associated with the development and operation of the network.

Section 207(e) would direct the Administrator, in coordination with the Secretary of State, to seek financial assistance from participating nations in order to ensure a fully functional global tsunami warning system.

Section 207(f) would allow the Administrator to accept payment to, or reimbursement of NOAA from, or on the behalf of, international organizations and foreign authorities, for expenses incurred by the Administrator in carrying out any activity under this act.

*Section 208. Coastal community vulnerability and adaptation program.*

Section 208(a) would direct the Administrator to establish an Integrated Coastal Vulnerability and Adaptation Program focused on improving the resilience of coastal communities to natural hazards and disasters. Six areas of activity are suggested: (1) development of vulnerability maps for coastal communities to a wide array of potential hazards; (2) efforts to better integrate risk management with community planning; (3) risk management leadership training for public officials; (4) development of risk assessment technologies; (5) new data services to support the new risk management activities; and (6) new risk notification systems.



Section 208(b) would direct the Administrator to begin 3 regional pilot projects incorporating the activities described in section 208(a). These projects should begin no more than one year after the enactment of this bill and provide regional assessments of U.S. coastal vulnerability to hazards associated with tsunami and other natural hazards or coastal disasters. Regional assessments should consider the social, physical, and economic impacts of such hazards. The assessments should also include a description of ways to enhance the resilience of at-risk communities, economic sectors and natural resources.

Section 208(c) would identify the selection criteria to be used in picking appropriate regional pilot projects. These would include: (1) vulnerability to the hazards discussed above; (2) dependence on economic sectors and resources that may be particularly at risk; (3) opportunities to link and use existing risk management programs; (4) evidence of strong interagency collaboration in the area of risk management for tsunami and other natural hazards or coastal disasters; and (5) access to NOAA and other Federal programs, facilities, and infrastructure.

Section 208(d) would direct the Administrator to submit regional adaptation plans to Congress 3 years after the implementation of the pilot programs. These plans should be based on the regional assessments discussed in section 208(b) and be developed with the participation of agencies at all levels of government as well as various non-governmental entities that have a stake in the pilot projects. The assessments should include recommendations for: (1) targets and strategies for addressing the hazards discussed above; (2) short and long term adaptation strategies; (3) Federal flood insurance programs; (4) areas that have been identified as high risk; (5) enhancing the effectiveness of State coastal zone management programs in mitigating the hazards discussed above; (6) mitigation incentives; (7) land and property owner education; (8) economic plans for small at risk communities; and (9) funding requirements and mechanisms.

Section 208(e) would direct the Administrator to establish a coordinated program to provide technical planning and assistance to coastal States, tribes and local governments as they implement strategies developed under this section. This program would also make available to these same entities all products, information, tools, and technical expertise generated through the regional assessments and adaptation plans.

*Section 209. Authorization of appropriations.*

Section 209 would authorize \$35 million to the Administrator of NOAA for each of fiscal years (FY) 2006 through 2012 to carry out the purposes of this act. An additional \$5 million would be provided to NOAA for FY 2006–2012 for activities carried out under section 8, of which at least \$3 million is to be used for the pilot programs annually.

## CHANGES IN EXISTING LAW

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new material is printed in italic, existing law in which no change is proposed is shown in roman):

### HOMELAND SECURITY ACT OF 2002

#### SEC. 502. RESPONSIBILITIES.

[6 U.S.C. 312]

The Secretary, acting through the Under Secretary for Emergency Preparedness and Response, shall include—

(1) helping to ensure the effectiveness of emergency response providers to terrorist attacks, major disasters, and other emergencies;

(2) with respect to the Nuclear Incident Response Team (regardless of whether it is operating as an organizational unit of the Department pursuant to this title (6 U.S.C. 311 et seq.))—

(A) establishing standards and certifying when those standards have been met;

(B) conducting joint and other exercises and training and evaluating performance; and

(C) providing funds to the Department of Energy and the Environmental Protection Agency, as appropriate, for homeland security planning, exercises and training, and equipment;

(3) providing the Federal Government's response to terrorist attacks and major disasters, including—

(A) managing such response;

(B) directing the Domestic Emergency Support Team, the National Disaster Medical System, and (when operating as an organizational unit of the Department pursuant to this title (6 U.S.C. 311 et seq.)) the Nuclear Incident Response Team;

(C) overseeing the Metropolitan Medical Response System; and

(D) coordinating other Federal response resources, including requiring deployment of the Strategic National Stockpile, in the event of a terrorist attack or major disaster;

(4) aiding the recovery from terrorist attacks and major disasters;

(5) building a comprehensive national incident management system with Federal, State, and local government personnel, agencies, and authorities, *in consultation with providers of telecommunications services (as defined in section 3(46) of the*

*Communications Act of 1934 (47 U.S.C. 153(46))) owning or operating communications infrastructure, to respond to such attacks and disasters;*

(6) consolidating existing Federal Government emergency response plans into a single, coordinated national response plan; **[and]**

(7) helping to ensure that emergency response providers acquire interoperable communications **[technology.]** *technology; and*

(8) *developing comprehensive mechanisms to work with and support critical infrastructure providers, including but not limited to providers of telecommunications services (as defined in section 3(46) of the Communications Act of 1934 (47 U.S.C. 153(46))), to ensure sufficient communications during a crisis or major disaster response.*

## ROBERT T. STAFFORD DISASTER RELIEF AND EMERGENCY ASSISTANCE ACT

### SEC. 102. DEFINITIONS.

[42 U.S.C. 5122]

As used in this Act—

(1) EMERGENCY.—“Emergency” means any occasion or instance for which, in the determination of the President, Federal assistance is needed to supplement State and local efforts and capabilities to save lives and to protect property and public health and safety, or to lessen or avert the threat of a catastrophe in any part of the United States.

(2) MAJOR DISASTER.—“Major disaster” means any natural catastrophe (including any hurricane, tornado, storm, high water, winddriven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, or drought), or, regardless of cause, any fire, flood, or explosion, in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance under this Act to supplement the efforts and available resources of States, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby.

(3) UNITED STATES.—“United States” means the fifty States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

(4) STATE.—“State” means any State of the United States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

(5) GOVERNOR.—“Governor” means the chief executive of any State.

(6) LOCAL GOVERNMENT.—The term “local government” means—

(A) a county, municipality, city, town, township, local public authority, school district, special district, intrastate district, council of governments (regardless of whether the

council of governments is incorporated as a nonprofit corporation under State law), regional or interstate government entity, or agency or instrumentality of a local government;

(B) an Indian tribe or authorized tribal organization, or Alaska Native village or organization; and

(C) a rural community, unincorporated town or village, or other public entity, for which an application for assistance is made by a State or political subdivision of a State.

(7) **FEDERAL AGENCY.**—“Federal agency” means any department, independent establishment, Government corporation, or other agency of the executive branch of the Federal Government, including the United States Postal Service, but shall not include the American National Red Cross.

(8) **PUBLIC FACILITY.**—“Public facility” means the following facilities owned by a State or local government:

(A) Any flood control, navigation, irrigation, reclamation, public power, sewage treatment and collection, water supply and distribution, watershed development, or airport facility.

(B) Any non-Federal-aid street, road, or highway.

(C) Any other public building, structure, or system, including those used for educational, recreational, or cultural purposes.

(D) Any park.

(9) **PRIVATE NONPROFIT FACILITY.**—“Private nonprofit facility” means private nonprofit educational, utility, irrigation, emergency, medical, rehabilitational, and temporary or permanent custodial care facilities (including those for the aged and disabled), other private nonprofit facilities which provide essential services of a governmental nature to the general public, and facilities on Indian reservations as defined by the President.

(10) **TELECOMMUNICATIONS SERVICE PROVIDER.**—*The term “telecommunications service provider” means a provider of telecommunications service as that term is defined in section 3(46) of the Communications Act of 1934 (47 U.S.C. 153(46)).*

#### **SEC. 403. ESSENTIAL ASSISTANCE.**

[42 U.S.C. 5170b]

(a) **IN GENERAL.**—Federal agencies may on the direction of the President, provide assistance essential to meeting immediate threats to life and property resulting from a major disaster, as follows:

[(1) **FEDERAL RESOURCES, GENERALLY.**—Utilizing, lending, or donating to State and local governments Federal equipment, supplies, facilities, personnel, and other resources, other than the extension of credit, for use or distribution by such governments in accordance with the purposes of this Act.]

(1) **FEDERAL RESOURCES.**—*Utilizing, lending, or donating Federal equipment, supplies, facilities, personnel, and other resources (other than the extension of credit)—*

*(A) to State and local governments for use or distribution by such governments in accordance with the purposes of this Act; or*

*(B) to assist telecommunications service providers in the maintenance and restoration of communications during an emergency or major disaster.*

(2) MEDICINE, FOOD, AND OTHER CONSUMABLES.—Distributing or rendering through State and local governments, the American National Red Cross, the Salvation Army, the Mennonite Disaster Service, and other relief and disaster assistance organizations medicine, food, and other consumable supplies, and other services and assistance to disaster victims.

(3) WORK AND SERVICES TO SAVE LIVES AND PROTECT PROPERTY.—Performing on public or private lands or waters any work or services essential to saving lives and protecting and preserving property or public health and safety, including—

(A) debris removal;

(B) search and rescue, emergency medical care, emergency mass care, emergency shelter, and provision of food, water, medicine, and other essential needs, including movement of supplies or persons;

(C) clearance of roads and construction of temporary bridges necessary to the performance of emergency tasks and essential community services;

(D) provision of temporary facilities for schools and other essential community services;

(E) demolition of unsafe structures which endanger the public;

(F) warning of further risks and hazards;

(G) dissemination of public information and assistance regarding health and safety measures;

(H) provision of technical advice to State and local governments on disaster management and control; and

(I) reduction of immediate threats to life, property, and public health and safety.

(4) CONTRIBUTIONS.—Making contributions to State or local governments or owners or operators of private nonprofit facilities for the purpose of carrying out the provisions of this subsection.

(b) FEDERAL SHARE.—Federal share of assistance under this section shall be not less than 75 percent of the eligible cost of such assistance.

(c) UTILIZATION OF DOD RESOURCES.—

(1) GENERAL RULE.—During the immediate aftermath of an incident which may ultimately qualify for assistance under this title or title V of this Act (42 U.S.C. 5170 et seq. or 5191 et seq.), the Governor of the State in which such incident occurred may request the President to direct the Secretary of Defense to utilize the resources of the Department of Defense for the purpose of performing on public and private lands any emergency work which is made necessary by such incident and which is essential for the preservation of life and property. If the President determines that such work is essential for the preservation of life and property, the President shall grant such request to the extent the President determines practicable. Such emergency work may only be carried out for a period not to exceed 10 days.

(2) RULES APPLICABLE TO DEBRIS REMOVAL.—Any removal of debris and wreckage carried out under this subsection shall be subject to section 407(b) (42 U.S.C. 5172(b)), relating to unconditional authorization and indemnification for debris removal.

(3) EXPENDITURES OUT OF DISASTER RELIEF FUNDS.—The cost of any assistance provided pursuant to this subsection shall be reimbursed out of funds made available to carry out this Act.

(4) FEDERAL SHARE.—The Federal share of assistance under this subsection shall be not less than 75 percent.

(5) GUIDELINES.—Not later than 180 days after the date of the enactment of the Disaster Relief and Emergency Assistance Amendments of 1988 (enacted Nov. 23, 1988), the President shall issue guidelines for carrying out this subsection. Such guidelines shall consider any likely effect assistance under this subsection would have on the availability of other forms of assistance under this Act.

(6) DEFINITIONS.—For purposes of this section—

(A) DEPARTMENT OF DEFENSE.—The term “Department of Defense” has the meaning the term “department” has under section 101 of title 10, United States Code.

(B) EMERGENCY WORK.—The term “emergency work” includes clearance and removal of debris and wreckage and temporary restoration of essential public facilities and services.

