Union Calendar No. 244

111TH CONGRESS
2D SESSION

H. R. 3820

[Report No. 111–424, Part I]

To reauthorize Federal natural hazards reduction programs, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

OCTOBER 15, 2009

Mr. WU (for himself, Mr. SMITH of Nebraska, Mr. GRAYSON, and Mr. MOORE of Kansas) introduced the following bill; which was referred to the Committee on Science and Technology, and in addition to the Committees on Natural Resources and Transportation and Infrastructure, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

FEBRUARY 26, 2010

Additional sponsors: Mr. GORDON of Tennessee and Mr. SCHIFF

FEBRUARY 26, 2010

Reported from the Committee on Science and Technology with an amendment

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

FEBRUARY 26, 2010

Committees on Natural Resources and Transportation and Infrastructure discharged; committed to the Committee of the Whole House on the State of the Union and ordered to be printed

[For text of introduced bill, see copy of bill as introduced on October 15, 2009]

A BILL

To reauthorize Federal natural hazards reduction programs, and for other purposes.

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

SECTION 1. SHORT TITLE.

This Act may be cited as the "Natural Hazards Risk Reduction Act of 2009".

SEC. 2. FINDINGS.

Congress finds the following:

(1) The United States faces significant risks from many types of natural hazards, including earthquakes, hurricanes, tornadoes, wildfires, and floods. Increasing numbers of Americans are living in areas prone to these hazards.

(2) Earthquakes occur without warning and can have devastating effects. According to the U.S. Geological Survey, two recent earthquakes, the Northridge Earthquake in 1994, and the Loma Prieta Earthquake in 1989, killed nearly 100 people, injured 12,757, and caused $33 billion in damages. Nearly all States face some level of seismic risk. Twenty-six urban areas in 14 States have a significant seismic risk.

(3) Severe weather is the most costly natural hazard, measured on a per year basis. According to data from the National Weather Service over the last 10 years, tornadoes, thunderstorms, and hurricanes

have caused an average of 226 fatalities and $16 billion of property damage per year. The 2005 hurricane season was one of the most destructive in United States history, killing 1,836 people, and causing $80 billion in damage.

(4) The United States Fire Administration reports that 38 percent of new home construction in 2002 was in areas adjacent to, or intermixed with, wildlands. Fires in the wildland-urban interface are costly. For example, the 2007 California Witch fire alone caused $1.3 billion in insured property losses, according to the Insurance Services Office (ISO). In addition, Government Accountability Office reported in 2007 that the Federal spending for wildfire suppression between 2001 and 2005 was, on average, $2.9 billion per year.

(5) Developing better knowledge about natural hazard phenomena and their effects is crucial to assessing the risks these hazards pose to communities. Instrumentation, monitoring, and data gathering to characterize earthquakes and wind events are important activities to increase this knowledge.

(6) Current building codes and standards can mitigate the damages caused by natural hazards. The Institute for Business and Home Safety estimated

that the $19 billion in damage caused by Hurricane Andrew in 1994 could have been reduced by half if such codes and standards were in effect. Research for the continuous improvement of building codes, standards, and design practices—and for developing methods to retrofit existing structures—is crucial to mitigating losses from natural hazards.

(7) Since its creation in 1977, the National Earthquake Hazards Reduction Program (NEHRP) has supported research to develop seismic codes, standards, and building practices that have been widely adopted. The NEHRP Recommended Provisions for Seismic Regulations for New Buildings and Other Structures and the Guidance for Seismic Performance Assessment of Buildings are two examples.

(8) Research to understand the institutional, social, behavioral, and economic factors that influence how households, businesses, and communities perceive risk and prepare for natural hazards, and how well they recover after a disaster, can increase the implementation of risk mitigation measures.

(9) A major goal of the Federal natural hazards-related research and development effort should be to reduce the loss of life and damage to communities and

infrastructure through increasing the adoption of hazard mitigation measures.

(10) Research, development, and technology transfer to secure infrastructure is vitally important. Infrastructure that supports electricity, transportation, drinking water, and other services is vital immediately after a disaster, and their quick return to function speeds the economic recovery of a disaster-impacted community.

TITLE I—EARTHQUAKES

SEC. 101. SHORT TITLE.

This title may be cited as the "National Earthquake Hazards Reduction Program Reauthorization Act of 2009".

SEC. 102. FINDINGS.

Section 2 of the Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7701) is repealed.

SEC. 103. DEFINITIONS.

Section 4 of the Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7703) is amended by striking paragraphs (8) and (9).

SEC. 104. NATIONAL EARTHQUAKE HAZARDS REDUCTION PROGRAM.

Section 5 of the Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7704) is amended—

(1) in subsection (a)—

(A) by amending paragraph (2) to read as follows:

"(2) PROGRAM ACTIVITIES.—The activities of the Program shall be designed to—

"(A) research and develop effective methods, tools, and technologies to reduce the risk posed by earthquakes to the built environment, especially to lessen the risk to existing structures and lifelines;

"(B) improve the understanding of earthquakes and their effects on households, businesses, communities, buildings, structures, and lifelines, through interdisciplinary and multidisciplinary research that involves engineering, natural sciences, and social sciences; and

"(C) facilitate the adoption of earthquake risk reduction measures by households, businesses, communities, local, State, and Federal governments, national standards and model building code organizations, architects and engineers, building owners, and others with a role in planning for disasters and planning, constructing, retrofitting, and insuring buildings, structures, and lifelines through—

"(i) grants, contracts, cooperative agreements, and technical assistance;

"(ii) development of standards, guidelines, voluntary consensus standards, and other design guidance for earthquake hazards risk reduction for buildings, structures, and lifelines;

"(iii) outreach and information dissemination to communities on location-specific earthquake hazards and methods to reduce the risks from those hazards; and

"(iv) development and maintenance of a repository of information, including technical data, on seismic risk and hazards reduction."; and

(B) by striking paragraphs (3) through (5);

(2) by amending subsection (b) to read as follows:

"(b) RESPONSIBILITIES OF PROGRAM AGENCIES.—

"(1) LEAD AGENCY.—The National Institute of Standards and Technology (in this section referred to as the 'Institute') shall be responsible for planning and coordinating the Program. In carrying out this paragraph, the Director of the Institute shall—

"(A) ensure that the Program includes the necessary components to promote the implementation of earthquake hazards risk reduction measures by households, businesses, communities, local, State, and Federal governments, national standards and model building code organizations, architects and engineers, building owners, and others with a role in preparing for disasters, or the planning, constructing, retrofitting, and insuring of buildings, structures, and lifelines;

"(B) support the development of performance-based seismic engineering tools, and work with the appropriate groups to promote the commercial application of such tools, through earthquake-related building codes, standards, and construction practices;

"(C) ensure the use of social science research and findings in informing research and technology development priorities, communicating earthquake risks to the public, developing earthquake risk mitigation strategies, and preparing for earthquake disasters;

"(D) coordinate all Federal post-earthquake investigations; and

"(E) when warranted by research or investigative findings, issue recommendations for changes in model codes to the relevant code development organizations, and report back to Congress on whether such recommendations were adopted.

"(2) NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.—In addition to the lead agency responsibilities described under paragraph (1), the Institute shall be responsible for carrying out research and development to improve building codes and standards and practices for buildings, structures, and lifelines. In carrying out this paragraph, the Director of the Institute shall—

"(A) work, in conjunction with other appropriate Federal agencies, to support the development of improved seismic standards and model codes;

"(B) in coordination with other appropriate Federal agencies, work closely with standards and model code development organizations, professional societies, and practicing engineers, architects, and others involved in the construction of buildings, structures, and lifelines, to promote better building practices, including by—

"(i) developing technical resources for practitioners on new knowledge and standards of practice; and

"(ii) developing methods and tools to facilitate the incorporation of earthquake engineering principles into design and construction practices;

"(C) develop tools, technologies, methods, and practitioner guidance to feasibly and cost-effectively retrofit existing buildings and structures to increase their earthquake resiliency; and

"(D) work closely with national standards organizations, and other interested parties, to develop seismic safety standards and practices for new and existing lifelines.

"(3) FEDERAL EMERGENCY MANAGEMENT AGENCY.—

"(A) IN GENERAL.—The Federal Emergency Management Agency (in this paragraph referred to as the 'Agency') shall be responsible for facilitating the development and adoption of standards, model building codes, and better seismic building practices, developing tools to assess earthquake hazards, promoting the adoption of hazard mitigation measures, and carrying out a

program of direct assistance to States and localities to mitigate earthquake risks to buildings, structures, lifelines, and communities.

"(B) DIRECTOR'S DUTIES.—The Director of the Agency shall—

"(i) work closely with other relevant Federal agencies, standards and model building code development organizations, architects, engineers, and other professionals, to facilitate the development and adoption of standards, model codes, and design and construction practices to increase the earthquake resiliency of new and existing buildings, structures, and lifelines in the—

"(I) preparation, maintenance, and wide dissemination of design guidance, model building codes and standards, and practices to increase the earthquake resiliency of new and existing buildings, structures, and lifelines;

"(II) development of performance-based design guidelines and methodologies supporting model codes for buildings, structures, and lifelines; and

"(III) development of methods and tools to facilitate the incorporation of earthquake engineering principles into design and construction practices;

"(ii) develop tools, technologies, and methods to assist local planners, and others, to model and predict the potential impact of earthquake damage in seismically hazardous areas; and

"(iii) support the implementation of a comprehensive earthquake education and public awareness program, including the development of materials and their wide dissemination to all appropriate audiences, and support public access to locality-specific information that may assist the public in preparing for, mitigating against, responding to, and recovering from earthquakes and related disasters.

"(C) STATE ASSISTANCE GRANT PROGRAM.—The Director of the Agency shall operate a program of grants and assistance to enable States to develop mitigation, preparedness, and response plans, compare inventories and conduct seismic safety inspections of critical structures

and lifelines, update building and zoning codes and ordinances to enhance seismic safety, increase earthquake awareness and education, and encourage the development of multistate groups for such purposes. In order to qualify for assistance under this subparagraph, a State must—

"(i) demonstrate that the assistance will result in enhanced seismic safety in the State;

"(ii) provide 50 percent of the costs of the activities for which assistance is being given, except that the Director may lower or waive the cost-share requirement for these activities in exceptional cases of economic hardship; and

"(iii) meet such other requirements as the Director of the Agency shall prescribe.

"(4) UNITED STATES GEOLOGICAL SURVEY.—The United States Geological Survey (in this paragraph referred to as the 'Survey') shall conduct research and other activities necessary to characterize and identify earthquake hazards, assess earthquake risks, monitor seismic activity, and provide real-time earthquake information. In carrying out this paragraph, the Director of the Survey shall—

"(A) conduct a systematic assessment of the seismic risks in each region of the Nation prone to earthquakes, including, where appropriate, the establishment and operation of intensive monitoring projects on hazardous faults, detailed seismic hazard and risk studies in urban and other developed areas where earthquake risk is determined to be significant, and engineering seismology studies;

"(B) work with officials of State and local governments to ensure that they are knowledgeable about the specific seismic risks in their areas;

"(C) develop standard procedures, in consultation with the Director of the Federal Emergency Management Agency, for issuing earthquake alerts, including aftershock advisories;

"(D) issue when justified, and notify the Director of the Federal Emergency Management Agency of, an earthquake prediction or other earthquake advisory, which may be evaluated by the National Earthquake Prediction Evaluation Council;

"(E) operate, as integral parts of the Advanced National Seismic Research and Moni-

toring System, a National Earthquake Information Center and a national seismic network, together providing timely and accurate information on earthquakes world-wide;

"(F) support the operation of regional seismic networks in areas of higher seismic risk;

"(G) develop and support seismic instrumentation of buildings and other structures to obtain data on their response to earthquakes for use in engineering studies and assessment of damage;

"(H) monitor and assess Earth surface deformation as it pertains to the evaluation of earthquake hazards and impacts;

"(I) work with other Program agencies to maintain awareness of, and where appropriate cooperate with, earthquake risk reduction efforts in other countries, to ensure that the Program benefits from relevant information and advances in those countries;

"(J) maintain suitable seismic hazard maps in support of building codes for structures and lifelines, including additional maps needed for performance-based design approaches;

"(K) conduct a competitive, peer-reviewed process which awards grants and cooperative agreements to complement and extend related internal Survey research and monitoring activities; and

"(L) operate, in cooperation with the National Science Foundation, a Global Seismographic Network for detection of earthquakes around the world and research into fundamental earth processes.

"(5) NATIONAL SCIENCE FOUNDATION.—The National Science Foundation shall be responsible for funding basic research that furthers the understanding of earthquakes, earthquake engineering, and community preparation and response to earthquakes. In carrying out this paragraph, the Director of the National Science Foundation shall—

"(A) support multidisciplinary and interdisciplinary research that will improve the resiliency of communities to earthquakes, including—

"(i) research that improves the safety and performance of buildings, structures, and lifelines, including the use of the large-scale experimental and computational fa-

cilities of the George E. Brown, Jr. Network for Engineering Earthquake Simulation;

"(ii) research to support more effective earthquake mitigation and response measures, such as developing better knowledge of the specific types of vulnerabilities faced by segments of the community vulnerable to earthquakes, addressing the barriers they face in adopting mitigation and preparation measures, and developing methods to better communicate the risks of earthquakes and to promote mitigation; and

"(iii) research on the response of communities, households, businesses, and emergency responders to earthquakes;

"(B) support research to understand earthquake processes, earthquake patterns, and earthquake frequencies;

"(C) encourage prompt dissemination of significant findings, sharing of data, samples, physical collections, and other supporting materials, and development of intellectual property so research results can be used by appropriate organizations to mitigate earthquake damage;

"(D) work with other Program agencies to maintain awareness of, and where appropriate cooperate with, earthquake risk reduction research efforts in other countries, to ensure that the Program benefits from relevant information and advances in those countries; and

"(E) include to the maximum extent practicable diverse institutions, including Historically Black Colleges and Universities, Hispanic-serving institutions, Tribal Colleges and Universities, Alaska Native-serving institutions, and Native Hawaiian-serving institutions."; and

(3) in subsection (c)(1) by inserting "on Natural Hazards Risk Reduction established under section 301 of the Natural Hazards Risk Reduction Act of 2009" after "Interagency Coordinating Committee".

SEC. 105. POST-EARTHQUAKE INVESTIGATIONS PROGRAM.

Section 11 of the Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7705e) is amended by striking "There is established" and all that follows through "conduct of such earthquake investigations." and inserting "The Program shall include a post-earthquake investigations program, the purpose of which is to investigate major earthquakes so as to learn lessons which can be applied to reduce the loss of lives and property in future earthquakes. The lead Program

agency, in consultation with each Program agency, shall organize investigations to study the implications of the earthquakes in the areas of responsibility of each Program agency. The investigations shall begin as rapidly as possible and may be conducted by grantees and contractors. The Program agencies shall ensure that the results of the investigations are disseminated widely.".

SEC. 106. AUTHORIZATION OF APPROPRIATIONS.

(a) IN GENERAL.—Section 12 of the Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7706) is amended—

(1) by adding at the end of subsection (a) the following:

"(9) There are authorized to be appropriated to the Federal Emergency Management Agency for carrying out this Act—

"(A) $10,238,000 for fiscal year 2010;

"(B) $10,545,000 for fiscal year 2011;

"(C) $10,861,000 for fiscal year 2012;

"(D) $11,187,000 for fiscal year 2013; and

"(E) $11,523,000 for fiscal year 2014.";

(2) by adding at the end of subsection (b) the following:

"(3) There are authorized to be appropriated to the United States Geological Survey for carrying out this Act,

including the Advanced National Seismic Research and Monitoring System—

"(A) $70,000,000 for fiscal year 2010;

"(B) $72,100,000 for fiscal year 2011;

"(C) $74,263,000 for fiscal year 2012;

"(D) $76,491,000 for fiscal year 2013; and

"(E) $78,786,000 for fiscal year 2014.";

(3) by adding at the end of subsection (c) the following:

"(3) There are authorized to be appropriated to the National Science Foundation for carrying out this Act—

"(A) $64,125,000 for fiscal year 2010;

"(B) $66,049,000 for fiscal year 2011;

"(C) $68,030,000 for fiscal year 2012;

"(D) $70,071,000 for fiscal year 2013; and

"(E) $72,173,000 for fiscal year 2014."; and

(4) by adding at the end of subsection (d) the following:

"(3) There are authorized to be appropriated to the National Institute of Standards and Technology for carrying out this Act—

"(A) $7,000,000 for fiscal year 2010;

"(B) $7,700,000 for fiscal year 2011;

"(C) $7,931,000 for fiscal year 2012;

"(D) $8,169,000 for fiscal year 2013; and

"(E) $8,414,000 for fiscal year 2014.".

(b) CONFORMING AMENDMENT.—Section 14 of the National Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7708) is amended—

(1) by striking "(a) ESTABLISHMENT.—"; and

(2) by striking subsection (b).

TITLE II—WIND

SEC. 201. SHORT TITLE.

This title may be cited as the "National Windstorm Impact Reduction Act Reauthorization of 2009".

SEC. 202. PURPOSE.

Section 202 of the National Windstorm Impact Reduction Act of 2004 (42 U.S.C. 15701) is amended to read as follows:

"SEC. 202. PURPOSE.

"It is the purpose of the Congress in this title to achieve a major measurable reduction in losses of life and property from windstorms through the establishment and maintenance of an effective Windstorm Impact Reduction Program. The objectives of such Program shall include—

"(1) the education of households, businesses, and communities about the risks posed by windstorms, and the identification of locations, structures, lifelines, and segments of the community which are especially vulnerable to windstorm damage and disrup-

tion, and the dissemination of information on methods to reduce those risks;

"(2) the development of technologically and economically feasible design and construction methods and procedures to make new and existing structures, in areas of windstorm risk, windstorm resilient, giving high priority to the development of such methods and procedures for lifelines, structures associated with a potential high loss of life, and structures that are especially needed in times of disasters, such as hospitals and public safety and shelter facilities;

"(3) the implementation, in areas of major windstorm risk, of instrumentation to record and gather data on windstorms and the characteristics of the wind during those events, and continued research to increase the understanding of windstorm phenomena;

"(4) the development, publication, and promotion, in conjunction with State and local officials and professional organizations, of model building codes and standards and other means to encourage consideration of information about windstorm risk in making decisions about land use policy and construction activity; and

"(5) the facilitation of the adoption of windstorm risk mitigation measures in areas of windstorm risk by households, businesses, and communities through outreach, incentive programs, and other means.".

SEC. 203. DEFINITIONS.

Section 203(1) of the National Windstorm Impact Reduction Act of 2004 (42 U.S.C. 15702(1)) is amended by striking "Director of the Office of Science and Technology Policy" and inserting "Director of the National Institute of Standards and Technology".

SEC. 204. NATIONAL WINDSTORM IMPACT REDUCTION PROGRAM.

Section 204 of the National Windstorm Impact Reduction Act of 2004 (42 U.S.C. 15703) is amended to read as follows:

"SEC. 204. NATIONAL WINDSTORM IMPACT REDUCTION PROGRAM.

"(a) ESTABLISHMENT.—There is established the National Windstorm Impact Reduction Program.

"(b) PROGRAM ACTIVITIES.—The activities of the Program shall be designed to—

"(1) research and develop cost-effective, feasible methods, tools, and technologies to reduce the risks posed by windstorms to the built environment, espe-

cially to lessen the risk to existing structures and lifelines;

"(2) improve the understanding of windstorms and their impacts on households, businesses, communities, buildings, structures, and lifelines, through interdisciplinary and multidisciplinary research that involves engineering, natural sciences, and social sciences; and

"(3) facilitate the adoption of windstorm risk reduction measures by households, businesses, communities, local, State and Federal governments, national standards and model building code organizations, architects and engineers, building owners, and others with a role in planning for disasters and planning, constructing, retrofitting, and insuring buildings, structures, and lifelines through—

"(A) grants, contracts, cooperative agreements, and technical assistance;

"(B) development of hazard maps, standards, guidelines, voluntary consensus standards, and other design guidance for windstorm risk reduction for buildings, structures, and lifelines;

"(C) outreach and information dissemination to communities on site specific windstorm

hazards and ways to reduce the risks from those hazards; and

"(D) development and maintenance of a repository of information, including technical data, on windstorm hazards and risk reduction;

"(c) RESPONSIBILITIES OF PROGRAM AGENCIES.—

"(1) LEAD AGENCY.—The National Institute of Standards and Technology (in this section referred to as the 'Institute') shall be responsible for planning and coordinating the Program. In carrying out this paragraph, the Director of the Institute shall—

"(A) ensure that the Program includes the necessary components to promote the implementation of windstorm risk reduction measures by households, businesses, communities, local, State, and Federal governments, national standards and model building code organizations, architects and engineers, building owners, and others with a role in planning and preparing for disasters, and planning constructing, and retrofitting, and insuring buildings, structures, and lifelines;

"(B) support the development of performance-based engineering tools, and work with the appropriate groups to promote the commercial application of such tools, through wind-related

building codes, standards, and construction practices;

"(C) ensure the use of social science research and findings in informing the development of technology and research priorities, in communicating windstorm risks to the public, in developing windstorm risk mitigation strategies, and in preparing for windstorm disasters;

"(D) coordinate all Federal post-windstorm investigations; and

"(E) when warranted by research or investigative findings, issue recommendations for changes in model codes to the relevant code development organizations, and report back to Congress on whether such recommendations were adopted.

"(2) NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.—In addition to the lead agency responsibilities described under paragraph (1), the Institute shall be responsible for carrying out research and development to improve model codes, standards, design guidance and practices for the construction and retrofit of buildings, structures, and lifelines. In carrying out this paragraph, the Director of the Institute shall—

"(A) support the development of instrumentation, data processing, and archival capabilities, and standards for the instrumentation and its deployment, to measure wind, wind loading, and other properties of severe wind and structure response;

"(B) coordinate with other appropriate Federal agencies to make the data described in subparagraph (A) available to researchers, standards and code developers, and local planners;

"(C) support the development of tools and methods for the collection of data on the loss of and damage to structures, and data on surviving structures after severe windstorm events;

"(D) improve the knowledge of the impact of severe wind on buildings, structures, lifelines, and communities;

"(E) develop cost-effective windstorm impact reduction tools, methods, and technologies;

"(F) work, in conjunction with other appropriate Federal agencies, to support the development of wind standards and model codes; and

"(G) in conjunction with other appropriate Federal agencies, work closely with standards and model code development organizations, pro-

fessional societies, and practicing engineers, architects, and others involved in the construction of buildings, structures, and lifelines, to promote better building practices, including by—

"(i) supporting the development of technical resources for practitioners to implement new knowledge; and

"(ii) supporting the development of methods and tools to incorporate wind engineering principles into design and construction practices.

"(3) FEDERAL EMERGENCY MANAGEMENT AGENCY.—The Federal Emergency Management Agency shall support the development of risk assessment tools and effective mitigation techniques, assist with windstorm-related data collection and analysis, and support outreach, information dissemination, and implementation of windstorm preparedness and mitigation measures by households, businesses, and communities, including by—

"(A) working to develop or improve risk-assessment tools, methods, and models;

"(B) work closely with other appropriate Federal agencies to develop and facilitate the

adoption of windstorm impact reduction measures, including by—

"(i) developing cost-effective retrofit measures for existing buildings, structures, and lifelines to improve windstorm performance;

"(ii) developing methods, tools, and technologies to improve the planning, design, and construction of new buildings, structures, and lifelines;

"(iii) supporting the development of model wind codes and standards for buildings, structures, and lifelines; and

"(iv) developing technical resources for practitioners that reflect new knowledge and standards of practice; and

"(C) develop and disseminate guidelines for the construction of windstorm shelters.

"(4) NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION.—The National Oceanic and Atmospheric Administration shall support atmospheric sciences research and data collection to improve the understanding of the behavior of windstorms and their impact on buildings, structures, and lifelines, including by—

"(A) working with other appropriate Federal agencies to develop and deploy instrumentation to measure speed and other characteristics of wind, and to collect, analyze, and make available such data;

"(B) working with officials of State and local governments to ensure that they are knowledgeable about, and prepared for, the specific windstorm risks in their area;

"(C) supporting the development of suitable wind speed maps and other derivative products that support building codes and other hazard mitigation approaches for buildings, structures, and lifelines;

"(D) conducting a competitive, peer-reviewed process which awards grants and cooperative agreements to complement the National Oceanic and Atmospheric Administration's wind-related and storm surge-related research and data collection activities;

"(E) working with other appropriate Federal agencies and State and local governments to develop or improve risk-assessment tools, methods, and models; and

"(F) working with other appropriate Federal agencies to develop storm surge models to better understand the interaction between windstorms and bodies of water.

"(5) NATIONAL SCIENCE FOUNDATION.—The National Science Foundation shall be responsible for funding basic research that furthers the understanding of windstorms, wind engineering, and community preparation and response to windstorms. In carrying out this paragraph, the Director of the National Science Foundation shall—

"(A) support multidisciplinary and interdisciplinary research that will improve the resiliency of communities to windstorms, including—

"(i) research that improves the safety and performance of buildings, structures, and lifelines;

"(ii) research to support more effective windstorm mitigation and response measures, such as developing better knowledge of the specific types of vulnerabilities faced by segments of the community vulnerable to windstorms, addressing the barriers they face in adopting mitigation and preparation measures, and developing methods to

better communicate the risks of windstorms and to promote mitigation; and

"(iii) research on the response of communities to windstorms, including on the effectiveness of the emergency response, and the recovery process of communities, households, and businesses;

"(B) support research to understand windstorm processes, windstorm patterns, and windstorm frequencies;

"(C) encourage prompt dissemination of significant findings, sharing of data, samples, physical collections, and other supporting materials, and development of intellectual property so research results can be used by appropriate organizations to mitigate windstorm damage;

"(D) work with other Program agencies to maintain awareness of, and where appropriate cooperate with, windstorm risk reduction research efforts in other countries, to ensure that the Program benefits from relevant information and advances in those countries; and

"(E) include to the maximum extent practicable diverse institutions, including Historically Black Colleges and Universities, Hispanic-

serving institutions, Tribal Colleges and Universities, Alaska Native-serving institutions, and Native Hawaiian-serving institutions.".

SEC. 205. AUTHORIZATION OF APPROPRIATIONS.

Section 207 of the National Windstorm Impact Reduction Program of 2004 (42 U.S.C. 15706) is amended to read as follows:

"SEC. 207. AUTHORIZATION OF APPROPRIATIONS.

"(a) FEDERAL EMERGENCY MANAGEMENT AGENCY.—There are authorized to be appropriated to the Federal Emergency Management Agency for carrying out this title—

"(1) $9,682,000 for fiscal year 2010;

"(2) $9,972,500 for fiscal year 2011;

"(3) $10,271,600 for fiscal year 2012;

"(4) $10,579,800 for fiscal year 2013; and

"(5) $10,897,200 for fiscal year 2014.

"(b) NATIONAL SCIENCE FOUNDATION.—There are authorized to be appropriated to the National Science Foundation for carrying out this title—

"(1) $9,682,000 for fiscal year 2010;

"(2) $9,972,500 for fiscal year 2011;

"(3) $10,271,600 for fiscal year 2012;

"(4) $10,579,800 for fiscal year 2013; and

"(5) $10,897,200 for fiscal year 2014.

"(c) NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.—There are authorized to be appropriated to the National Institute of Standards and Technology for carrying out this title—

"(1) $4,120,000 for fiscal year 2010;

"(2) $4,243,600 for fiscal year 2011;

"(3) $4,370,900 for fiscal year 2012;

"(4) $4,502,000 for fiscal year 2013; and

"(5) $4,637,100 for fiscal year 2014.

"(d) NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION.—There are authorized to be appropriated to the National Oceanic and Atmospheric Administration for carrying out this title—

"(1) $2,266,000 for fiscal year 2010;

"(2) $2,334,000 for fiscal year 2011;

"(3) $2,404,000 for fiscal year 2012;

"(4) $2,476,100 for fiscal year 2013; and

"(5) $2,550,400 for fiscal year 2014.".

TITLE III—INTERAGENCY COORDINATING COMMITTEE ON NATURAL HAZARDS RISK REDUCTION

SEC. 301. INTERAGENCY COORDINATING COMMITTEE ON NATURAL HAZARDS RISK REDUCTION.

(a) IN GENERAL.—There is established an Interagency Coordinating Committee on Natural Hazards Risk Reduction, chaired by the Director of the National Institute of Standards and Technology.

(1) MEMBERSHIP.—In addition to the chair, the Committee shall be composed of—

(A) the directors of—

(i) the Federal Emergency Management Agency;

(ii) the United State Geological Survey;

(iii) the National Oceanic and Atmospheric Administration;

(iv) the National Science Foundation;

(v) the Office of Science and Technology Policy; and

(vi) the Office of Management and Budget; and

(B) the head of any other Federal agency the Committee considers appropriate.

(2) MEETINGS.—The Committee shall not meet less than 2 times a year at the call of the Director of the National Institute of Standards and Technology.

(3) GENERAL PURPOSE AND DUTIES.—The Committee shall oversee the planning and coordination of the National Earthquake Hazards Reduction Program and the National Windstorm Impact Reduction Program, and shall make proposals for planning and coordination of any other Federal research for natural hazard mitigation that the Committee considers appropriate.

(4) STRATEGIC PLANS.—The Committee shall develop and submit to Congress, not later than one year after the date of enactment of this Act—

(A) a Strategic Plan for the National Earthquake Hazards Reduction Program that includes—

(i) prioritized goals for such Program that will mitigate against the loss of life and property from future earthquakes;

(ii) short-term, mid-term, and long-term research objectives to achieve those goals;

(iii) a description of the role of each Program agency in achieving the prioritized goals;

(iv) the methods by which progress towards the goals will be assessed;

(v) an explanation of how the Program will foster the transfer of research results onto outcomes, such as improved building codes;

(vi) a description of the role of social science in informing the development of the prioritized goals and research objectives; and

(vii) a description of how the George E. Brown, Jr. Network for Earthquake Engineering Simulation and the Advanced National Seismic Research and Monitoring System will be used in achieving the prioritized goals and research objectives; and

(B) a Strategic Plan for the National Windstorm Impact Reduction Program that includes—

(i) prioritized goals for such Program that will mitigate against the loss of life and property from future windstorms;

(ii) short-term, mid-term, and long-term research objectives to achieve those goals;

(iii) a description of the role of each Program agency in achieving the prioritized goals;

(iv) the methods by which progress towards the goals will be assessed;

(v) an explanation of how the Program will foster the transfer of research results onto outcomes, such as improved building codes; and

(vi) a description of the role of social science in informing the development of the prioritized goals and research objectives.

(5) PROGRESS REPORTS.—Not later than one year after the date of enactment of this Act, and at least once every two years thereafter, the Committee shall submit to the Congress—

(A) a report on the progress of the National Earthquake Hazards Reduction Program that includes—

(i) a description of the activities funded for the previous two years of the Program, a description of how these activities align with the prioritized goals and research objectives established in the Strategic Plan, and the budgets, per agency, for these activities;

(ii) the outcomes achieved by the Program for each of the goals identified in the Strategic Plan;

(iii) a description of any recommendations made to change existing building codes that were the result of Program activities; and

(iv) a description of the extent to which the Program has incorporated recommendations from the Advisory Committee on Earthquake Hazards Reduction; and

(B) a report on the progress of the National Windstorm Impact Reduction Program that includes—

(i) a description of the activities funded for the previous two years of the Program, a description of how these activities align with the prioritized goals and research objectives established in the Strategic Plan, and the budgets, per agency, for these activities;

(ii) the outcomes achieved by the Program for each of the goals identified in the Strategic Plan;

(iii) a description of any recommendations made to change existing building codes that were the result of Program activities; and

(iv) a description of the extent to which the Program has incorporated recommendations from the Advisory Committee on Windstorm Impact Reduction.

(6) COORDINATED BUDGET.—The Committee shall develop a coordinated budget for the National Earthquake Hazards Reduction Program and a coordinated budget for the National Windstorm Impact Reduction Program. These budgets shall be submitted to the Congress at the time of the President's budget submission for each fiscal year.

(b) ADVISORY COMMITTEES ON NATURAL HAZARDS REDUCTION.—

(1) IN GENERAL.—The Director of the National Institute of Standards and Technology shall establish an Advisory Committee on Earthquake Hazards Reduction, an Advisory Committee on Windstorm Impact Reduction, and other such advisory committees as the Director considers necessary to advise the Institute on research, development, and technology transfer activities to mitigate the impact of natural disasters.

(2) ADVISORY COMMITTEE ON EARTHQUAKE HAZARDS REDUCTION.—The Advisory Committee on Earthquake Hazards Reduction shall be composed of at least 11 members, none of whom may be employees of the Federal Government, including representatives of research and academic institutions, industry standards development organizations, State and local government, and business communities who are qualified to provide advice on earthquake hazards reduction and represent all related scientific, architectural, and engineering disciplines. The recommendations of the Advisory Committee shall be considered by Federal agencies in implementing the National Earthquake Hazards Reduction Program.

(3) ADVISORY COMMITTEE ON WINDSTORM IMPACT REDUCTION.—The Advisory Committee on Windstorm Impact Reduction shall be composed of at least 7 members, none of whom may be employees of the Federal Government, including representatives of research and academic institutions, industry standards development organizations, State and local government, and business communities who are qualified to provide advice on windstorm impact reduction and represent all related scientific, architectural, and engineering disciplines. The recommendations of the Advisory Committee shall be considered by Federal agencies in implementing the National Windstorm Impact Reduction Program.

(4) ASSESSMENTS.—The Advisory Committee on Earthquake Hazards Reduction and the Advisory Committee on Windstorm Impact Reduction shall offer assessments on—

(A) trends and developments in the natural, social, and engineering sciences and practices of earthquake hazards or windstorm impact mitigation;

(B) the priorities of the Programs' Strategic Plans;

(C) the coordination of the Programs; and

(D) and any revisions to the Programs which may be necessary.

(5) REPORTS.—At least every two years, the Advisory Committees shall report to the Director of the National Institute of Standards and Technology on the assessments carried out under paragraph (4) and their recommendations for ways to improve the Programs. In developing recommendations for the National Earthquake Hazards Reduction Program, the Advisory Committee on Earthquake Hazards Reduction shall consider the recommendations of the United States Geological Survey Scientific Earthquake Studies Advisory Committee.

(c) COORDINATION OF FEDERAL DISASTER RESEARCH, DEVELOPMENT, AND TECHNOLOGY TRANSFER.—Not later than 2 years after the date of enactment of this Act, the Subcommittee on Disaster Reduction of the Committee on Environment and Natural Resources of the National Science and Technology Council shall submit a report to the Congress identifying—

(1) current Federal research, development, and technology transfer activities that address hazard mitigation for natural disasters, including earthquakes, hurricanes, tornados, wildfires, floods, and the current budgets for these activities;

(2) areas of research that are common to two or more of the hazards identified in paragraph (1); and

(3) opportunities to create synergies between the research activities for the hazards identified in paragraph (1).

TITLE IV—NATIONAL CONSTRUCTION SAFETY TEAM ACT AMENDMENTS

SEC. 401. NATIONAL CONSTRUCTION SAFETY TEAM ACT AMENDMENTS.

The National Construction Safety Team Act (15 U.S.C. 7301 et seq.) is amended—

(1) in section 2(a)—

(A) by striking "a building or buildings" and inserting "a building, buildings, or infrastructure"; and

(B) by striking "To the maximum extent practicable, the Director shall establish and deploy a Team within 48 hours after such an event." and inserting "The Director shall make a decision whether to deploy a Team within 72 hours after such an event.";

(2) in section 2(b)(1), by striking "buildings" and inserting "buildings or infrastructure";

(3) in section 2(b)(2)(A), by striking "building" and inserting "building or infrastructure";

(4) in section 2(b)(2)(D), by striking "buildings" and inserting "buildings or infrastructure";

(5) in section 2(c)(1), by striking "the United States Fire Administration and";

(6) in section 2(c)(1)(G), by striking "building" and inserting "building or infrastructure";

(7) in section 2(c)(1)(J)—

(A) by striking "building" and inserting "building or infrastructure"; and

(B) by inserting "and the National Windstorm Impact Reduction Act of 2004" after "Act of 1977";

(8) in section 4(a), by striking "investigating a building" and inserting "investigating building and infrastructure";

(9) in section 4(a)(1)—

(A) by striking "a building" and inserting "a building or infrastructure"; and

(B) by striking "building" both of the other places it appears and inserting "building or infrastructure";

(10) in section 4(a)(3), by striking "building" both places it appears and inserting "building or infrastructure";

(11) in section 4(b), by striking "building" both places it appears and inserting "building or infrastructure";

(12) in section 4(c)(1) and (2), by striking "building" both places it appears and inserting "building or infrastructure";

(13) in section 4(d)(3) and (4), by striking "building" both places it appears and inserting "building or infrastructure";

(14) in section 7(a), by striking "on request and at reasonable cost";

(15) in section 7(c), by striking "building" and inserting "building or infrastructure";

(16) in section 8(1) and (4), by striking "building" both places it appears and inserting "building or infrastructure";

(17) in section 9, by striking "the United States Fire Administration and";

(18) in section 9(2)(C), by striking "building" and inserting "building or infrastructure";

(19) in section 10(3), by striking "building" and inserting "building and infrastructure";

(20) in section 11(a), by striking "the United States Fire Administration and"; and

(21) by striking section 12.

TITLE V—FIRE RESEARCH PROGRAM

SEC. 501. FIRE RESEARCH PROGRAM.

Section 16(a)(1) of the National Institute of Standards and Technology Act (15 U.S.C. 278f(a)(1)) is amended—

(1) in subparagraph (D), by inserting "fires at the wildland-urban interface," after "but not limited to,"; and

(2) in subparagraph (E), by inserting "fires at the wildland-urban interface," after "types of fires, including".

Union Calendar No. 244

111TH CONGRESS
2D SESSION

H. R. 3820

[Report No. 111–424, Part I]

A BILL

To reauthorize Federal natural hazards reduction programs, and for other purposes.

FEBRUARY 26, 2010

Reported from the Committee on Science and Technology with an amendment

FEBRUARY 26, 2010

Committees on Natural Resources and Transportation and Infrastructure discharged; committed to the Committee of the Whole House on the State of the Union and ordered to be printed