

**Calendar No. 114**

114TH CONGRESS }  
*1st Session* }

SENATE

{ REPORT  
114-62

NATIONAL WINDSTORM IMPACT REDUCTION  
ACT REAUTHORIZATION OF 2015

---

R E P O R T

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND  
TRANSPORTATION

ON

H.R. 23



JUNE 11, 2015.—Ordered to be printed

---

U.S. GOVERNMENT PUBLISHING OFFICE

49-010

WASHINGTON : 2015

SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED FOURTEENTH CONGRESS

FIRST SESSION

JOHN THUNE, South Dakota, *Chairman*

ROGER F. WICKER, Mississippi	BILL NELSON, Florida
ROY BLUNT, Missouri	MARIA CANTWELL, Washington
MARCO RUBIO, Florida	CLAIRE MCCASKILL, Missouri
KELLY AYOTTE, New Hampshire	AMY KLOBUCHAR, Minnesota
TED CRUZ, Texas	RICHARD BLUMENTHAL, Connecticut
DEB FISCHER, Nebraska	BRIAN SCHATZ, Hawaii
JERRY MORAN, Kansas	ED MARKEY, Massachusetts
DAN SULLIVAN, Alaska	CORY BOOKER, New Jersey
RON JOHNSON, Wisconsin	TOM UDALL, New Mexico
DEAN HELLER, Nevada	JOE MANCHIN, West Virginia
CORY GARDNER, Colorado	GARY PETERS, Michigan
STEVE DAINES, Montana	

DAVID SCHWIETERT, *Staff Director*

NICK ROSSI, *Deputy Staff Director*

REBECCA SEIDEL, *General Counsel*

KIM LIPSKY, *Democratic Staff Director*

CHRISTOPHER DAY, *Democratic Deputy Staff Director*

CLINT ODOM, *Democratic General Counsel*

## Calendar No. 114

114TH CONGRESS }  
*1st Session* }

SENATE

{ REPORT  
114-62

---

---

### NATIONAL WINDSTORM IMPACT REDUCTION ACT REAUTHORIZATION OF 2015

—————  
JUNE 11, 2015.—Ordered to be printed  
—————

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

### R E P O R T

[To accompany H. R. 23]

The Committee on Commerce, Science, and Transportation, to which was referred the bill (H.R. 23) to reauthorize the National Windstorm Impact Reduction Program, 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 H.R. 23, as reported, is to strengthen and improve the National Windstorm Impact Reduction Program (NWIRP).

#### BACKGROUND AND NEEDS

Wind hazards—which include tornados, hurricanes, and derechos—are a threat to all 50 States and cause injuries, deaths, economic disruptions, and property damage. Millions of Americans live in areas vulnerable to storms with damaging winds. The tornadic events of 2011 in Joplin, Missouri and in the southeastern United States, as well as recent Hurricanes Isaac, Irene, and Sandy in 2012, demonstrated the devastating results of windstorms. In the United States in 2011, windstorms caused nearly \$11 billion in total direct property losses, injured nearly 7,000 peo-

ple, and took nearly 700 lives.<sup>1</sup> As populations continue to grow in areas prone to hurricanes, tornadoes, and windstorms, vulnerabilities to severe weather are likely to increase. In 2005, the National Science and Technology Council (NSTC) stated that America's primary focus on disaster response and recovery is "an impractical and inefficient strategy for dealing with these ongoing threats. Instead, communities must break the cycle of destruction and recovery by enhancing their disaster resilience."<sup>2</sup>

NWIRP was established in 2004, but has never been reauthorized.<sup>3</sup> Under the program, the National Oceanic and Atmospheric Administration (NOAA), the National Institute of Standards and Technology (NIST), the National Science Foundation (NSF), and the Federal Emergency Management Agency (FEMA) support activities to improve the understanding of windstorms and their impacts, as well as to develop and encourage the implementation of cost-effective mitigation measures to reduce these impacts.

The White House Office of Science and Technology Policy (OSTP) submitted a NWIRP implementation plan in April 2006, which assessed programs relevant to the goals of NWIRP across eight Federal agencies and identified important areas of research that were not covered by current activities. General knowledge gaps were identified in the three broad categories of research authorized in the National Windstorm Impact Reduction Act of 2004 (42 U.S.C. 15701 et seq.) (Act of 2004): understanding windstorms; assessing the impacts of windstorms; and mitigation against the effects of windstorms.<sup>4</sup> The implementation plan also recommended a continued role for the Interagency Working Group within the NSTC's Committee on Environment and Natural Resources, Subcommittee on Disaster Reduction. In OSTP's most recent Biennial Report to Congress for Fiscal Years 2011 and 2012, OSTP provided examples of relevant Federal activities undertaken by the program, reflecting collaboration and cooperation across government, among Federal agencies, and with academia and the private sector.<sup>5</sup>

#### SUMMARY OF PROVISIONS

H.R. 23, as amended, would strengthen NWIRP by transferring primary responsibility for program planning and coordination from OSTP to NIST, assigning updated program responsibilities to participating agencies NIST, NSF, NOAA, and FEMA, and requiring these agencies to report on planned NWIRP activities in conjunction with the President's budget requests to Congress. NIST would be designated as the new lead agency of NWIRP, which would help ensure agency efforts for wind-hazard mitigation research, develop-

<sup>1</sup>National Oceanic and Atmospheric Administration, National Weather Service, Summary of Natural Hazard Statistics for 2011 in the United States, May 2012, at <http://www.nws.noaa.gov/om/hazstats/sum11.pdf>.

<sup>2</sup>National Science and Technology Council, Committee on Environment and Natural Resources, Subcommittee on Disaster Reduction, Grand Challenges for Disaster Reduction, June 2005, at <http://www.sdr.gov/docs/SDRGrandChallengesforDisasterReduction.pdf>.

<sup>3</sup>P.L. 108-360, Title II, National Windstorm Impact Reduction Act (2004).

<sup>4</sup>National Science and Technology Council, Windstorm Impact Reduction Implementation Plan, 2006, at [http://www.whitehouse.gov/sites/default/files/microsites/ostp/windstorm\\_impact\\_reduction\\_implementation\\_plan\\_final.pdf](http://www.whitehouse.gov/sites/default/files/microsites/ostp/windstorm_impact_reduction_implementation_plan_final.pdf).

<sup>5</sup>National Science and Technology Council, National Windstorm Impact Reduction Program: Biennial Report to Congress for Fiscal Years 2011 and 2012, p. 6, at [http://www.whitehouse.gov/sites/default/files/microsites/ostp/NSTC/nwirp\\_fy11-12\\_biennial\\_report\\_to\\_congress.pdf](http://www.whitehouse.gov/sites/default/files/microsites/ostp/NSTC/nwirp_fy11-12_biennial_report_to_congress.pdf).

ment, and technology transfer are coordinated, transparent, and effective.

The bill would create a new Interagency Coordinating Committee on Windstorm Impact Reduction that would be required to develop a strategic plan that outlines the prioritized goals of the program, research objectives to attain those goals, and how research results will be transferred into outcomes, such as improved building codes and other mitigation measures. H.R. 23 would also update the requirements of the National Advisory Committee on Windstorm Impact Reduction, which convenes non-Federal stakeholders to provide recommendations and assessments on trends and developments on windstorm impact mitigation, and NWIRP strategic plan priorities, coordination, effectiveness, and necessary revisions.

The bill would authorize appropriations totaling \$21.4 million for each of fiscal years 2015 through 2017 for NWIRP activities at NIST, NOAA, NSF, and FEMA. This total is less than the level authorized in the original law.

#### LEGISLATIVE HISTORY

H.R. 23 was introduced on January 6, 2015, by Representative Randy Neugebauer and passed the House of Representatives by a vote of 381-39 on January 7, 2015. The bill is substantially similar to H.R. 1786, which passed the House of Representatives in the 113th Congress but saw no action in the Senate.

No legislative hearings were held on H.R. 23 in the 114th Congress. In the 113th Congress, the Subcommittee on Research and Technology of the Committee on Science, Space, and Technology of the House of Representatives, held a hearing on June 5, 2013, to examine the role of research and development in mitigating the damaging effects of windstorms and the methods of transferring the results of research into practice for stakeholders, including building code developers, builders, and property owners. The hearing reviewed the activities of NWIRP and H.R. 1786, the National Windstorm Impact Reduction Act Reauthorization of 2013.

On February 26, 2015, the Committee on Commerce, Science, and Transportation of the Senate held an Executive Session to consider H.R. 23, and ordered the bill to be reported to the Senate favorably, with an amendment in the nature of a substitute, by voice vote. Two first degree amendments were agreed to, including one sponsored by Chairman Thune and Ranking Member Nelson to make several changes to the bill reflecting agency feedback, and another sponsored by Senator Markey to add a term to the list of examples of windstorms.

#### 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:

*H.R. 23—National Windstorm Impact Reduction Act Reauthorization of 2015*

Summary: H.R. 23 would reauthorize the National Windstorm Impact Reduction Program (NWIRP), which was created to improve

the understanding of windstorms and their effects and to develop measures to reduce the damage they cause. The act also would establish an interagency committee to oversee and coordinate activities of federal agencies participating in the program. Under H.R. 23, the committee would be directed to develop a strategic plan that sets goals for the program to mitigate the loss of life and property from future storms.

Assuming appropriation of the authorized amounts, CBO estimates that implementing H.R. 23 would cost \$42 million over the 2016–2020 period. Pay-as-you-go procedures do not apply because enacting the legislation would not affect direct spending or revenues.

H.R. 23 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would not affect the budgets of state, local, or tribal governments.

**Estimated cost to the Federal Government:** The estimated budgetary effect of H.R. 23 is shown in the following table. The costs of this legislation fall within budget functions 250 (general science, space, and technology), 300 (natural resources and environment), 370 (commerce and housing credit), and 450 (community and regional development).

	By fiscal year, in millions of dollars—					
	2016	2017	2018	2019	2020	2016–2020
CHANGES IN SPENDING SUBJECT TO APPROPRIATION						
Federal Emergency Management Agency:						
Authorization Level .....	5	5	0	0	0	11
Estimated Outlays .....	3	5	2	0	0	11
National Science Foundation:						
Authorization Level .....	10	10	0	0	0	19
Estimated Outlays .....	2	6	6	3	1	18
National Institute of Standards and Technology:						
Authorization Level .....	4	4	0	0	0	8
Estimated Outlays .....	3	4	1	0	0	8
National Oceanographic and Atmospheric Administration:						
Authorization Level .....	2	2	0	0	0	5
Estimated Outlays .....	1	2	1	0	0	5
Total.						
Authorization Level .....	21	21	0	0	0	43
Estimated Outlays .....	10	18	10	3	1	42

Note: Components may not sum to totals because of rounding.

**Basis of estimate:** For this estimate, CBO assumes that H.R. 23 will be enacted near the end fiscal year 2015 and that the authorized amounts will be appropriated in fiscal years 2016 and 2017. Estimated outlays are based on historical spending patterns for this program.

For each of fiscal years 2016 and 2017, H.R. 23 would authorize appropriation of about \$21 million for the federal agencies that participate in the windstorm reduction program. Specifically, for each of those years, the act would authorize appropriations of \$5.3 million for the Federal Emergency Management Agency, \$9.7 million for the National Science Foundation, \$4.1 million for the National Institute of Standards and Technology, and \$2.3 million for the National Oceanic and Atmospheric Administration to carry out the NWIRP. Assuming appropriation those amounts, CBO estimates

that implementing the act would cost \$42 million over the 2016–2020 period.

CBO estimates that roughly \$54 million was obligated in 2014 by federal agencies for windstorm-related activities. However, those agencies do not have sufficient information available to compare the activities authorized in H.R. 23 with the amounts obligated in 2014.

Pay-As-You-Go considerations: None.

Intergovernmental and private-sector impact: H.R. 23 contains no intergovernmental or private-sector mandates as defined in UMRA and would not affect the budgets of state, local, or tribal governments.

Estimate prepared by: Federal costs: Susan Willie; Impact on state, local, and tribal governments: Jon Sperl; Impact on the private sector: Amy Petz.

Estimate approved by: H. Samuel Papenfuss, Deputy Assistant Director for Budget Analysis.

#### REGULATORY IMPACT

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 not subject any individuals or businesses to additional regulations. It would support research and development to improve model building codes, voluntary standards, and best practices for the design, construction, and retrofit of buildings, structures, and lifelines. These recommended models, standards, and practices would be voluntary under the bill and not regulatory requirements.

##### ECONOMIC IMPACT

The bill would authorize spending by the Federal Government at lower levels than were previously authorized. Four Federal agencies would be authorized to spend a total of \$21.4 million annually from fiscal years 2015 through 2017, whereas these agencies were authorized to spend a total of \$25 million in the last fiscal year authorized (fiscal year 2008). This spending would support windstorm impact research and development and mitigation measures, which if applied and implemented, would result in positive economic benefits and savings for the Nation.

##### PRIVACY

The bill would have no adverse impact on the personal privacy of individuals.

##### PAPERWORK

The bill would not increase paperwork requirements for private individuals or businesses. The legislation would require the Federal Government to produce three reports to Congress, and a Federal advisory committee to submit a report to NIST. The Interagency Coordinating Committee on Windstorm Impact Reduction would be

required to submit to Congress a strategic plan not later than one year after the date of enactment, a report on NWIRP progress not later than 18 months after the date of enactment, and a coordinated NWIRP budget not later than 60 days after the President submits the President's budget to Congress each fiscal year. Participating NWIRP agencies would also be required to include a description of projected activities and spending in their annual budget requests to Congress. The National Advisory Committee on Windstorm Impact Reduction would be required to report at least every two years to the Director of NIST on its assessments and recommendations for ways to improve NWIRP, shifting an existing reporting requirement to Congress and to an OSTP Interagency Working Group under current law.

#### CONGRESSIONALLY DIRECTED SPENDING

In compliance with paragraph 4(b) of rule XLIV of the Standing Rules of the Senate, the Committee provides that no provisions contained in the bill, as reported, meet the definition of congressionally directed spending items under the rule.

#### SECTION-BY-SECTION ANALYSIS

##### *Section 1. Short title.*

This section would establish the short title as the "National Windstorm Impact Reduction Act Reauthorization of 2015."

##### *Section 2. Definitions.*

This section would amend section 203 of the Act of 2004 (42 U.S.C. 15702) to define the "Director" of NWIRP as the Director of NIST rather than the Director of OSTP. Section 203 also would define "lifelines" to mean public works and utilities, oil and gas pipelines, electrical power and communication facilities and infrastructure, and water supply and sewage treatment facilities. As amended, section 203 would add the term "northeaster" to the list of examples of windstorms in the National Windstorm Impact Reduction Act of 2004.

##### *Section 3. National Windstorm Impact Reduction Program.*

The amendments to section 204 of the Act of 2004 (42 U.S.C. 15703) made under this section would identify the four agencies that have responsibilities under NWIRP: NIST, NSF, NOAA, and FEMA. The amendments made under this section would define NIST as the lead program agency with primary responsibility for planning and coordinating NWIRP, and assign updated responsibilities to the four program agencies.

The amendments to section 204 of the Act of 2004 (42 U.S.C. 15703) made under this section would require NIST to support the development of performance-based engineering tools; request the assistance of Federal agencies, other than NWIRP agencies, as necessary; coordinate all Federal post-windstorm investigations to the extent practicable (as amended); and issue recommendations to assist in informing model codes when warranted by research or investigative findings. The Committee intends for NIST to coordinate all Federal post-windstorm investigations, but does not intend for NIST to do so at the expense of conducting research and develop-



ment at its laboratories. NIST is not required to be physically present at every post-windstorm investigation but should be aware of and play a role in all investigations. In addition to the lead agency responsibilities, NIST would also be required to conduct research and development to improve model building codes, voluntary standards, and best practices for the design, construction, and retrofit of buildings, structures, and lifelines.

The amendments to section 204 of the Act of 2004 (42 U.S.C 15703) made under this section would require NSF to support research in engineering and the atmospheric sciences to improve the understanding of the behavior of windstorms and their impact on buildings, structures, and lifelines, as well as research in economic and social factors influencing windstorm risk reduction measures.

The amendments to section 204 of the Act of 2004 (42 U.S.C 15703) made under this section would require NOAA to support atmospheric science research to improve the understanding of the behavior of windstorms and their impact on buildings, structures, and lifelines.

The amendments to section 204 of the Act of 2004 (42 U.S.C 15703) made under this section would require FEMA to support the development of risk assessment tools and effective mitigation techniques, windstorm-related data collection and analysis, public outreach and information dissemination, and promotion of the adoption of windstorm preparedness and mitigation measures. FEMA would also be required to work closely with national standards and model building code organizations, in conjunction with NIST, to promote implementation of research results and promote better building practices.

The Directors of NIST, NSF, NOAA and FEMA would be required to include in each of their annual budget requests to Congress a description of their agency's projected NWIRP activities and an assessment of what they plan to spend on the program for the fiscal year covered in the budget request. This will provide greater accountability and transparency for NWIRP and its annual activities.

Additionally, the amendments under this section would create an Interagency Coordinating Committee on Windstorm Impact Reduction, intended to update and replace the current interagency working group structure led by OSTP. The Interagency Coordinating Committee would be chaired by the Director of NIST, or the Director's designee (as amended), and would be comprised of the heads or such designees (as amended) of FEMA, NOAA, NSF, OSTP, the Office of Management and the Budget (OMB), and the head of any other Federal agency the Chair considers appropriate. The Interagency Coordinating Committee would be required to meet not less than once a year and to develop and submit to Congress a strategic plan, progress report, and coordinated budgets for NWIRP. The coordinated budget would be due within 60 days after the President's budget request has been transmitted to Congress (as amended). The Interagency Coordinating Committee may meet more often than once a year, especially as it is beginning its work. The Interagency Coordinating Committee should ensure that the agencies coordinate their activities well through strategic planning and that they take advantage of opportunities for more coordination of research and development across different natural hazards.

*Section 4. National Advisory Committee on Windstorm Impact Reduction.*

This section would amend section 205 of the Act of 2004 (42 U.S.C. 15704) to reauthorize and update an existing advisory committee for NWIRP of at least 7 and not more than 15 members (as amended) who are qualified to provide advice on windstorm impact reduction. The advisory committee must offer recommendations and assessments on trends and developments on windstorm impact mitigation and NWIRP strategic plan priorities, coordination, effectiveness (as amended), and necessary revisions. Additionally, the amendments made under this section would require the advisory committee to report to the Director of NIST on its assessments and recommendations at least every two years. The authority for the advisory committee would terminate on September 30, 2017.

*Section 5. Authorization of appropriations.*

This section would amend section 207 of the Act of 2004 (42 U.S.C. 15706) to authorize appropriations as follows:

For FEMA: \$5,332,000 for each fiscal year 2015 through 2017.

For NSF: \$9,682,000 for each fiscal year 2015 through 2017.

For NIST: \$4,120,000 for each fiscal year 2015 through 2017.

For NOAA: \$2,266,000 for each fiscal year 2015 through 2017.

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):

NATIONAL WINDSTORM IMPACT REDUCTION ACT OF 2004

[42 U.S.C. 15701 et seq.]

**SEC. 203. DEFINITIONS.**

[42 U.S.C. 15802]

In this title:

(1) **DIRECTOR.**—The term “Director” means the **[Director of the Office of Science and Technology Policy]** *Director of the National Institute of Standards and Technology.*

(2) **LIFELINES.**—*The term “lifelines” means public works and utilities, including transportation facilities and infrastructure, oil and gas pipelines, electrical power and communication facilities and infrastructure, and water supply and sewage treatment facilities.*

**[(2)](3) PROGRAM.**—The term “Program” means the National Windstorm Impact Reduction Program established by section 204(a).

**[(3)](4) STATE.**—The term “State” means each of the States of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the United States Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, and any other territory or possession of the United States.

[(4)](5) WINDSTORM.—The term “windstorm” means any storm with a damaging or destructive wind component, such as a hurricane, tropical storm, *northeaster*, tornado, or thunderstorm.

**SEC. 204. NATIONAL WINDSTORM IMPACT REDUCTION PROGRAM.**

[42 U.S.C. 15703]

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

[(b) OBJECTIVE.—The objective of the Program is the achievement of major measurable reductions in losses of life and property from windstorms. The objective is to be achieved through a coordinated Federal effort, in cooperation with other levels of government, academia, and the private sector, aimed at improving the understanding of windstorms and their impacts and developing and encouraging implementation of cost-effective mitigation measures to reduce those impacts.

[(c) INTERAGENCY WORKING GROUP.—Not later than 90 days after the date of enactment of this Act, the Director shall establish an Interagency Working Group consisting of representatives of the National Science Foundation, the National Oceanic and Atmospheric Administration, the National Institute of Standards and Technology, the Federal Emergency Management Agency, and other Federal agencies as appropriate. The Director shall designate an agency to serve as Chair of the Working Group and be responsible for the planning, management, and coordination of the Program, including budget coordination. Specific agency roles and responsibilities under the Program shall be defined in the implementation plan required under subsection (e). General agency responsibilities shall include the following:

[(1) The National Institute of Standards and Technology shall support research and development to improve building codes and standards and practices for design and construction of buildings, structures, and lifelines.

[(2) The National Science Foundation shall support research in engineering and the atmospheric sciences to improve the understanding of the behavior of windstorms and their impact on buildings, structures, and lifelines.

[(3) The National Oceanic and Atmospheric Administration shall support atmospheric sciences research to improve the understanding of the behavior of windstorms and their impact on buildings, structures, and lifelines.

[(4) The Federal Emergency Management Agency shall support the development of risk assessment tools and effective mitigation techniques, windstorm-related data collection and analysis, public outreach, information dissemination, and implementation of mitigation measures consistent with the Agency’s all-hazards approach.]

(a) *ESTABLISHMENT.—There is established the National Windstorm Impact Reduction Program, the purpose of which is to achieve major measurable reductions in the losses of life and property from windstorms through a coordinated Federal effort, in cooperation with other levels of government, academia, and the private sector, aimed at improving the understanding of windstorms and their impacts and developing and encouraging the implementation of cost-effective mitigation measures to reduce those impacts.*

(b) *RESPONSIBILITIES OF PROGRAM AGENCIES.*—

(1) *LEAD AGENCY.*—*The National Institute of Standards and Technology shall have the primary responsibility for planning and coordinating the Program. In carrying out this paragraph, the Director shall—*

(A) *ensure that the Program includes the necessary components to promote the implementation of windstorm risk reduction measures by Federal, State, and local governments, national standards and model building code organizations, architects and engineers, and others with a role in planning and constructing buildings and lifelines;*

(B) *support the development of performance-based engineering tools, and work with appropriate groups to promote the commercial application of such tools, including through wind-related model building codes, voluntary standards, and construction best practices;*

(C) *request the assistance of Federal agencies other than the Program agencies, as necessary to assist in carrying out this Act;*

(D) *coordinate all Federal post-windstorm investigations to the extent practicable; and*

(E) *when warranted by research or investigative findings, issue recommendations to assist in informing the development of model codes, and provide information to Congress on the use of such recommendations.*

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

(3) *NATIONAL SCIENCE FOUNDATION.*—*The National Science Foundation shall support research in—*

(A) *engineering and the atmospheric sciences to improve the understanding of the behavior of windstorms and their impact on buildings, structures, and lifelines; and*

(B) *economic and social factors influencing windstorm risk reduction measures.*

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

(5) *FEDERAL EMERGENCY MANAGEMENT AGENCY.*—*The Federal Emergency Management Agency shall—*

(A) *support—*

(i) *the development of risk assessment tools and effective mitigation techniques;*

(ii) *windstorm-related data collection and analysis;*

(iii) *public outreach and information dissemination;*  
*and*

(iv) *promotion of the adoption of windstorm preparedness and mitigation measures, including for*

*households, businesses, and communities, consistent with the Agency's all-hazards approach; and*

*(B) work closely with national standards and model building code organizations, in conjunction with the National Institute of Standards and Technology, to promote the implementation of research results and promote better building practices within the building design and construction industry, including architects, engineers, contractors, builders, and inspectors.*

**[(d)](c) PROGRAM COMPONENTS.—**

(1) **IN GENERAL.**—The Program shall consist of three primary mitigation components: improved understanding of windstorms, windstorm impact assessment, and windstorm impact reduction. The components shall be implemented through activities such as data collection and analysis, risk assessment, outreach, technology transfer, and research and development. To the extent practicable, research activities authorized under this title shall be peer-reviewed, and the components shall be designed to be complementary to, and avoid duplication of, other public and private hazard reduction efforts.

(2) **UNDERSTANDING OF WINDSTORMS.**—Activities to enhance the understanding of windstorms shall include research to improve knowledge of and data collection on the impact of severe wind on buildings, structures, and infrastructure.

(3) **WINDSTORM IMPACT ASSESSMENT.**—Activities to improve windstorm impact assessment shall include—

(A) development of mechanisms for collecting and inventorying information on the performance of buildings, structures, and infrastructure in windstorms and improved collection of pertinent information from sources, including the design and construction industry, insurance companies, and building officials;

(B) research, development, and technology transfer to improve loss estimation and risk assessment systems; and

(C) research, development, and technology transfer to improve simulation and computational modeling of windstorm impacts.

(4) **WINDSTORM IMPACT REDUCTION.**—Activities to reduce windstorm impacts shall include—

(A) development of improved outreach and implementation mechanisms to translate existing information and research findings into cost-effective and affordable practices for design and construction professionals, and State and local officials;

(B) development of cost-effective and affordable windstorm-resistant systems, structures, and materials for use in new construction and retrofit of existing construction; and

(C) outreach and information dissemination related to cost-effective and affordable construction techniques, loss estimation and risk assessment methodologies, and other pertinent information regarding windstorm phenomena to Federal, State, and local officials, the construction industry, and the general public.

[(e) IMPLEMENTATION PLAN.—Not later than 1 year after date of enactment of this title, the Interagency Working Group shall develop and transmit to the Congress an implementation plan for achieving the objectives of the Program. The plan shall include—

[(1) an assessment of past and current public and private efforts to reduce windstorm impacts, including a comprehensive review and analysis of windstorm mitigation activities supported by the Federal Government;

[(2) a description of plans for technology transfer and coordination with natural hazard mitigation activities supported by the Federal Government;

[(3) a statement of strategic goals and priorities for each Program component area;

[(4) a description of how the Program will achieve such goals, including detailed responsibilities for each agency; and

[(5) a description of plans for cooperation and coordination with interested public and private sector entities in each program component area.

[(f) BIENNIAL REPORT.—The Interagency Working Group shall, on a biennial basis, and not later than 180 days after the end of the preceding 2 fiscal years, transmit a report to the Congress describing the status of the windstorm impact reduction program, including progress achieved during the preceding two fiscal years. Each such report shall include any recommendations for legislative and other action the Interagency Working Group considers necessary and appropriate. In developing the biennial report, the Interagency Working Group shall consider the recommendations of the Advisory Committee established under section 205. Windstorm Impact Reduction Program.]

(d) BUDGET ACTIVITIES.—*The Director of the National Institute of Standards and Technology, the Director of the National Science Foundation, the Director of the National Oceanic and Atmospheric Administration, and the Director of the Federal Emergency Management Agency shall each include in their agency's annual budget request to Congress a description of their agency's projected activities under the Program for the fiscal year covered by the budget request, along with an assessment of what they plan to spend on those activities for that fiscal year.*

(e) INTERAGENCY COORDINATING COMMITTEE ON WINDSTORM IMPACT REDUCTION.—

(1) ESTABLISHMENT.—*There is established an Interagency Coordinating Committee on Windstorm Impact Reduction, chaired by the Director or the Director's designee.*

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

(A) *the heads or such designees of—*

(i) *the Federal Emergency Management Agency;*

(ii) *the National Oceanic and Atmospheric Administration;*

(iii) *the National Science Foundation;*

(iv) *the Office of Science and Technology Policy; and*

(v) *the Office of Management and Budget; and*

(B) *the head of any other Federal agency, or such designee, the chair considers appropriate.*

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

(4) *GENERAL PURPOSE AND DUTIES.*—*The Committee shall oversee the planning and coordination of the Program.*

(5) *STRATEGIC PLAN.*—*The Committee shall develop and submit to Congress, not later than one year after the date of enactment of the National Windstorm Impact Reduction Act Reauthorization of 2015, a Strategic Plan for the Program that includes—*

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

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

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

*(D) the methods by which progress towards the goals will be assessed; and*

*(E) an explanation of how the Program will foster the transfer of research results into outcomes, such as improved model building codes.*

(6) *PROGRESS REPORT.*—*Not later than 18 months after the date of enactment of the National Windstorm Impact Reduction Act Reauthorization of 2015, the Committee shall submit to the Congress a report on the progress of the Program that includes—*

*(A) a description of the activities funded under 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;*

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

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

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

(7) *COORDINATED BUDGET.*—*The Committee shall develop a coordinated budget for the Program, which shall be submitted to the Congress not later than 60 days after the date of the President's budget submission for each fiscal year.*

**[SEC. 205. NATIONAL ADVISORY COMMITTEE ON WINDSTORM IMPACT REDUCTION.**

[42 U.S.C. 15704]

**[(a) ESTABLISHMENT.**— The Director shall establish a National Advisory Committee on Windstorm Impact Reduction, consisting of not less than 11 and not more than 15 non-Federal members representing a broad cross section of interests such as the research, technology transfer, design and construction, and financial communities; materials and systems suppliers; State, county, and local governments; the insurance industry; and other representatives as designated by the Director.

- [(b) ASSESSMENT.—The Advisory Committee shall assess—
- [(1) trends and developments in the science and engineering of windstorm impact reduction;
  - [(2) the effectiveness of the Program in carrying out the activities under section 204(d);
  - [(3) the need to revise the Program; and
  - [(4) the management, coordination, implementation, and activities of the Program.

[(c) BIENNIAL REPORT.—At least once every two years, the Advisory Committee shall report to Congress and the Interagency Working Group on the assessment carried out under subsection (b).

[(d) SUNSET EXEMPTION.—Section 14 of the Federal Advisory Committee Act shall not apply to the Advisory Committee established under this section.]

**SEC. 205. NATIONAL ADVISORY COMMITTEE ON WINDSTORM IMPACT REDUCTION.**

(a) *IN GENERAL.*—The Director of the National Institute of Standards and Technology shall establish an Advisory Committee on Windstorm Impact Reduction, which shall be composed of at least 7 and not more than 15 members who are qualified to provide advice on windstorm impact reduction and represent related scientific, architectural, and engineering disciplines, none of whom may be employees of the Federal Government, including—

- (1) representatives of research and academic institutions;
- (2) industry standards development organizations;
- (3) emergency management agencies;
- (4) State and local government; and
- (5) business communities, including the insurance industry.

(b) *ASSESSMENTS.*—The Advisory Committee on Windstorm Impact Reduction shall offer assessments and recommendations on—

- (1) trends and developments in the natural, engineering, and social sciences and practices of windstorm impact mitigation;
  - (2) the priorities of the Program’s Strategic Plan;
  - (3) the coordination of the Program;
  - (4) the effectiveness of the Program in meeting its purposes;
- and

- (5) any revisions to the Program which may be necessary.

(c) *COMPENSATION.*—The members of the Advisory Committee established under this section shall serve without compensation.

(d) *REPORTS.*—At least every 2 years, the Advisory Committee shall report to the Director on the assessments carried out under subsection (b) and its recommendations for ways to improve the Program.

(e) *CHARTER.*—Notwithstanding section 14(b)(2) of the Federal Advisory Committee Act (5 U.S.C. App.), the Advisory Committee shall not be required to file a charter subsequent to its initial charter, filed under section 9(c) of such Act, before the termination date specified in subsection (f) of this section.

(f) *TERMINATION.*—The Advisory Committee shall terminate on September 30, 2017.

(g) *CONFLICT OF INTEREST.*—An Advisory Committee member shall recuse himself from any Advisory Committee activity in which he has an actual pecuniary interest.



**[SEC. 207. AUTHORIZATION OF APPROPRIATIONS.**

[42 U.S.C. 15706]

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

- [(1) \$8,700,000 for fiscal year 2006;**
- [(2) \$9,400,000 for fiscal year 2007; and**
- [(3) \$9,400,000 for fiscal year 2008.]**

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

- [(1) \$8,700,000 for fiscal year 2006;**
- [(2) \$9,400,000 for fiscal year 2007; and**
- [(3) \$9,400,000 for fiscal year 2008.]**

**[(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) \$3,000,000 for fiscal year 2006;**
- [(2) \$4,000,000 for fiscal year 2007; and**
- [(3) \$4,000,000 for fiscal year 2008.]**

**[(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) \$2,100,000 for fiscal year 2006;**
- [(2) \$2,200,000 for fiscal year 2007; and**
- [(3) \$2,200,000 for fiscal year 2008.]**

**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) \$5,332,000 for fiscal year 2015;*
- (2) \$5,332,000 for fiscal year 2016; and*
- (3) \$5,332,000 for fiscal year 2017.*

*(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 2015;*
- (2) \$9,682,000 for fiscal year 2016; and*
- (3) \$9,682,000 for fiscal year 2017.*

*(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 2015;*
- (2) \$4,120,000 for fiscal year 2016; and*
- (3) \$4,120,000 for fiscal year 2017.*

*(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 2015;*
- (2) \$2,266,000 for fiscal year 2016; and*
- (3) \$2,266,000 for fiscal year 2017.*