 Whereas the Governments of the United States and Mexico enjoy close diplomatic cooperation and Mexico has consistently voted with the United States at the United Nations on issues related to Syria, North Korea, and Ukraine, as well as at the Organization of American States on issues related to Venezuela;

 Whereas Mexico is an important security and defense partner to the United States, and regularly participates in training activities in coordination with United States Northern Command (NORTHCOM) and the North American Aerospace Defense Command (NORAD);

 Whereas consecutive United States and Mexican administrations have increased bilateral defense and law enforcement cooperation on counterterrorism and counter narcotics issues, including the illicit trafficking of weapons, money, people, and drugs across the United States Southern Border;

 Whereas the Government of Mexico has utilized its military and Federal Police to combat the transnational criminal organizations that traffic in narcotics, including the ongoing High Level Economic Dialogue, launched in 2013 to bring together cabinet officials from both countries to promote shared democratic values and principles.

 Senate Resolution 103—Designating March 29, 2017, as “Vietnam Veterans Day”

 Mr. BURR (for himself and Mr. MANCHIN) submitted the following resolution; which was considered and agreed to:

 S. Res. 103

 Whereas the Vietnam War was fought in the Republic of Vietnam from 1955 to 1975 and involved regular forces from the Democratic Republic of Vietnam, Viet Cong guerrilla forces in armed conflict with the United States Armed Forces, the armed forces of allies of the United States, and the armed forces of South Vietnam;

 Whereas the United States Armed Forces became involved in Vietnam because the United States Government wanted to provide direct support to the Republic of Vietnam to defend against the growing threat of Communism from the Democratic Republic of Vietnam;

 Whereas members of the United States Armed Forces began serving in an advisory role to the Government of South Vietnam in 1955;

 Whereas as a result of the Gulf of Tonkin Resolution on August 7, 1964, which provided the President of the United States the authority to use armed force to assist the Republic of Vietnam in the defense of its freedom against the Democratic Republic of Vietnam;

 Whereas, on January 27, 1973, the Agreement on Ending the War in Vietnam and Restoring Peace (commonly known as the “Paris Peace Accords”) was signed, which required the release of all United States prisoners-of-war held in North Vietnam and the withdrawal of all United States Armed Forces from South Vietnam;

 Whereas, on March 29, 1973, the United States Armed Forces completed the withdrawal of combat units and combat support units from South Vietnam;

 Whereas, on April 30, 1975, North Vietnamese regular forces captured Saigon, the capital of South Vietnam, effectively placing South Vietnam under Communist control;

 Whereas more than 58,000 members of the United States Armed Forces lost their lives in the Vietnam War, and more than 300,000 members of the United States Armed Forces were wounded in Vietnam;

 Whereas, in 1982, the Vietnam Veterans Memorial was dedicated in the District of Columbia and serves as a national memorial to the service and sacrifices of all who served in the United States Armed Forces.

 Whereas the Government of Mexico has utilized its military and Federal Police to combat the transnational criminal organizations that traffic in narcotics, including the ongoing High Level Economic Dialogue, launched in 2013 to bring together cabinet officials from both countries to promote shared democratic values and principles.

 Whereas members of the United States Armed Forces who served bravely and faithfully for the United States during the Vietnam War were often wrongly criticized for the decisions of policymakers that were beyond the control of those members of the United States Armed Forces who died or were declared missing-in-action in Vietnam;

 Whereas the Vietnam War was an extremely divisive issue among the people of the United States and a conflict that caused a generation of veterans to wait too long for the United States public to acknowledge and honor the efforts and services of those veterans;

 Whereas members of the United States Armed Forces who served bravely and faithfully for the United States during the Vietnam War were often wrongly criticized for the decisions of policymakers that were beyond the control of those members of the United States Armed Forces who died or were declared missing-in-action in Vietnam;

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 Whereas the Government of Mexico has utilized its military and Federal Police to combat the transnational criminal organizations that traffic in narcotics, including the ongoing High Level Economic Dialogue, launched in 2013 to bring together cabinet officials from both countries to promote shared democratic values and principles.

 Whereas members of the United States Armed Forces who served bravely and faithfully for the United States during the Vietnam War were often wrongly criticized for the decisions of policymakers that were beyond the control of those members of the United States Armed Forces who died or were declared missing-in-action in Vietnam;

 Whereas the Vietnam War was an extremely divisive issue among the people of the United States and a conflict that caused a generation of veterans to wait too long for the United States public to acknowledge and honor the efforts and services of those veterans;

 Whereas members of the United States Armed Forces who served bravely and faithfully for the United States during the Vietnam War were often wrongly criticized for the decisions of policymakers that were beyond the control of those members of the United States Armed Forces who died or were declared missing-in-action in Vietnam;

 Whereas, on January 27, 1973, the Agreement on Ending the War in Vietnam and Restoring Peace (commonly known as the “Paris Peace Accords”) was signed, which required the release of all United States prisoners-of-war held in North Vietnam and the withdrawal of all United States Armed Forces from South Vietnam;

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 Whereas more than 58,000 members of the United States Armed Forces lost their lives in the Vietnam War, and more than 300,000 members of the United States Armed Forces were wounded in Vietnam;

 Whereas, in 1982, the Vietnam Veterans Memorial was dedicated in the District of Columbia and serves as a national memorial to the service and sacrifices of all who served in the United States Armed Forces.

 Whereas the Government of Mexico has utilized its military and Federal Police to combat the transnational criminal organizations that traffic in narcotics, including the ongoing High Level Economic Dialogue, launched in 2013 to bring together cabinet officials from both countries to promote shared democratic values and principles.

 Whereas members of the United States Armed Forces who served bravely and faithfully for the United States during the Vietnam War were often wrongly criticized for the decisions of policymakers that were beyond the control of those members of the United States Armed Forces who died or were declared missing-in-action in Vietnam;

 Whereas the Vietnam War was an extremely divisive issue among the people of the United States and a conflict that caused a generation of veterans to wait too long for the United States public to acknowledge and honor the efforts and services of those veterans;
(1) to assist younger veterans returning from the wars in Iraq and Afghanistan in rehabilitation from wounds, both seen and unseen; and
(2) to support the reintegration of younger veterans into civilian life.

AMENDMENTS SUBMITTED AND PROPOSED
SA 204. Mr. MCCONNELL (for Mr. THUNE) proposed an amendment to the bill H.R. 353, to improve the National Oceanic and Atmospheric Administration’s weather research through a focused program of investment on affordable and attainable advances in observational, computational, and modeling capabilities to support substantial improvement in weather forecasting and prediction of high impact weather events, to expand commercial opportunities for the provision of weather data, and for other purposes.

SA 205. Mr. MCCONNELL (for Ms. CANTWELL) proposed an amendment to the bill H.R. 353, supra.

TEXT OF AMENDMENTS
SA 204. Mr. MCCONNELL (for Mr. THUNE) proposed an amendment to the bill H.R. 353, to improve the National Oceanic and Atmospheric Administration’s weather research through a focused program of investment on affordable and attainable advances in observational, computational, and modeling capabilities to support substantial improvement in weather forecasting and prediction of high impact weather events, to expand commercial opportunities for the provision of weather data, and for other purposes; as follows:

Strike all after the enacting clause and insert the following:

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) Short Title.—This Act may be cited as the "Weather Research and Forecasting Innovation Act of 2017".

(b) Jointly Submitted.—The table of contents for this Act is as follows:

Sec. 1. Short title; table of contents.
Sec. 2. Definitions.

TITLE I—UNITED STATES WEATHER RESEARCH AND FORECASTING INNOVATION

Sec. 101. Public safety priority.
Sec. 102. Weather research and forecasting innovation.
Sec. 103. Tornado warning improvement and extension program.
Sec. 104. Hurricane forecast improvement program.
Sec. 105. Weather research and development planning.
Sec. 106. Observing system planning.
Sec. 107. Observing system simulation experiments.
Sec. 108. Annual report on computing resources prioritization.
Sec. 109. United States Weather Research program.
Sec. 110. Authorization of appropriations.

TITLE II—SUBSEASONAL AND SEASONAL FORECASTING INNOVATION

Sec. 201. Improving subseasonal and seasonal forecasts.

TITLE III—WEATHER SATELLITE AND DATA INNOVATION

Sec. 301. National Oceanic and Atmospheric Administration satellite and data management.

Sec. 302. Commercial weather data.
Sec. 303. Unnecessary duplication.

TITLE IV—FEDERAL WEATHER COORDINATION

Sec. 401. Environmental Information Service.
Sec. 402. Interagency weather research and forecast innovation coordination.

Sec. 404. Weather forecast follow-up at National Weather Service.
Sec. 405. Warning coordination meteorologists at weather forecast offices and National Weather Service.
Sec. 406. Improving National Oceanic and Atmospheric Administration communication of hazardous weather and water events.
Sec. 407. National Oceanic and Atmospheric Administration Weather Ready All Hazards Award Program.
Sec. 408. Department of Defense weather forecasting activities.
Sec. 409. National Weather Service; operational, research, and outreach analysis.
Sec. 411. Weather impacts to communities and economic sectors.
Sec. 412. Weather enterprise outreach.
Sec. 413. Hurricane hunter aircraft.
Sec. 414. Study on gaps in NEXRAD coverage and recommendations to address such gaps.

SEC. 2. DEFINITIONS.

In this Act:

(1) SEASONAL.—The term "seasonal" means the time range between 3 months and 2 years.

(2) STATE.—The term "State" means a State, a territory, or possession of the United States, including a Commonwealth, or the District of Columbia.

(3) SUBSEASONAL.—The term "subseasonal" means the time range between 2 weeks and 3 months.

(4) UNDER SECRETARY.—The term "Under Secretary" means the Under Secretary of Commerce for Oceans and Atmosphere.

(5) WEATHER INDUSTRY AND WEATHER ENTERPRISE.—The terms "weather industry" and "weather enterprise" are interchangeable in this Act, and include all individuals and organizations from public, private, and academic sectors that contribute to the research, development, and production of weather forecast products by providing consumers of these weather forecast products.

TITLE I—UNITED STATES WEATHER RESEARCH AND FORECASTING IMPROVEMENT

Sec. 101. PUBLIC SAFETY PRIORITY.

In conducting research, the Under Secretary shall prioritize improving weather data, modeling, computing, forecasting, and warnings for the protection of life and property and for the enhancement of the national economy.

SEC. 102. WEATHER RESEARCH AND FORECASTING INNOVATION.

(a) PROGRAM.—The Assistant Administrator for the Office of Oceanic and Atmospheric Research shall conduct a program to develop improvements of and forecast capabilities for atmospheric events and their impacts, placing priority on developing more accurate, timely, and effective warnings and forecasts of high impact weather events that endanger life and property.

(b) PROGRAM ELEMENTS.—The program described in subsection (a) shall focus on the following aspects:

(1) Improving the fundamental understanding of weather consistent with section 101, including the boundary layer and other processes affecting high impact weather events.

(2) Improving the understanding of how the public receives, interprets, and responds to warnings and forecasts of high impact weather events that endanger life and property.

(3) Research and development, and transfer of knowledge, technologies, and applications to the National Weather Service and other appropriate agencies and entities, including the United States weather industry and academic partners, related to—

(A) advanced radar, radar networking technologies, and others using technologies, including those emphasizing rapid, fine-scale sensing of the boundary layer and lower troposphere, and the use of innovative, duality, and applications; and technologies;

(B) aerial weather observing systems;

(C) high performance computing and information technology and wireless communication networks;

(D) advanced numerical weather prediction systems and forecasting tools and techniques that improve the forecasting of timing, track, intensity, and severity of high impact weather, including through—

(i) the development of more effective mesoscale models;

(ii) the development of more effective use of existing, and the development of new, regional and national cloud-resolving models;

(iii) enhanced global weather models; and

(iv) integrated assessment models;

(E) quantitative assessment tools for measuring the impact and value of data and observing systems, including Observing System Simulation Experiments (as described in section 107), Observing System Experiments, and Analyses of Alternatives;

(F) atmospheric chemistry and interactions essential to accurately characterizing atmospheric composition and predicting meteorological processes, including cloud microphysical, precipitation, and atmospheric electricity processes, to more effectively understand their role in severe weather; and

(G) additional sources of weather data and information, including commercial observing systems.

(4) A technology transfer initiative, carried out jointly and in coordination with the Director of the National Weather Service, and in cooperation with the United States weather industry and academic partners, to ensure continuing development and transition of the latest scientific and technological advances into operations of the National Weather Service and to establish a process to sunset outdated and expensive operational methods and tools to enable cost-effective transfer of new methods and tools into operations.

(c) EXTRAORDINARY RESEARCH.—

(1) IN GENERAL.—In carrying out the program under this section, the Assistant Administrator for Oceanic and Atmospheric Research shall collaborate with and support the non-Federal weather research community, which includes institutions of higher education, private entities, and nongovernmental organizations, by making funds available through competitive grants, contracts, and cooperative agreements.

(2) SENSE OF CONGRESS.—It is the sense of Congress that not less than 30 percent of the funds for weather research and development at the Office of Oceanic and Atmospheric Research should be made available for the purposes described in paragraph (1).

(d) ANNUAL REPORT.—Each year, concurrent with the annual budget request submitted by the President under section 1105 of title 31, United States Code, for the National Oceanic and Atmospheric