

Ms. PINGREE. Madam Speaker, my bill would support these efforts and more by improving NOAA's collaboration with State, local, and Tribal Governments on community vulnerability assessments, research planning, and similar activities related to ocean and coastal acidification. In addition, ensuring the Ocean Acidification Information Exchange will bolster data sharing on ocean acidification research, data, and monitoring efforts between Federal experts, community acidification networks, and other affected stakeholders.

This legislation will address the growing and far-reaching threat of ocean acidification to help ensure our ocean industries, including fisheries, and the communities that depend on them are more resilient to our changing oceans.

Madam Speaker, I urge my colleagues to join me in supporting H.R. 676 today.

Mr. MILLER of Ohio. Madam Speaker, I have no further requests for time. I am prepared to close once the gentleman from Michigan does, and I reserve the balance of my time.

Ms. STEVENS. Madam Speaker, in closing, we are also delighted to have new members of the Science, Space, and Technology Committee join us in passing bipartisan legislation. We are so grateful for the expertise from our colleague from Maine and the phenomenal leadership of our ranking member, Ms. LOFGREN, and certainly our chair, Mr. LUCAS.

Madam Speaker, I yield back the balance of my time.

Mr. MILLER of Ohio. Madam Speaker, I yield myself the balance of my time.

Madam Speaker, I want to reiterate my support for this bill, H.R. 676. Despite the title, the Coastal Communities Ocean Acidification Act has the potential to benefit more than just coastal communities and oceans.

The Great Lakes basin is home to approximately 43 million people, 8 percent of the United States population, and supports \$62 billion in wages. This region and my constituents in Ohio are a small piece of the \$1 billion United States shellfish industry and the hundreds of thousands of jobs that are affected by ocean and coastal acidification.

Increasing the involvement of Indian Tribes with ongoing NOAA ocean acidification work will protect this critical economic pillar and lead to solutions that the entire country can benefit from.

Madam Speaker, I urge my colleagues to support this bipartisan legislation, and I yield back the balance of my time.

The SPEAKER pro tempore. The question is on the motion offered by the gentleman from Ohio (Mr. MILLER) that the House suspend the rules and pass the bill, H.R. 676.

The question was taken.

The SPEAKER pro tempore. In the opinion of the Chair, two-thirds being in the affirmative, the ayes have it.

Mr. MILLER of Ohio. Madam Speaker, on that I demand the yeas and nays. The yeas and nays were ordered.

The SPEAKER pro tempore. Pursuant to clause 8 of rule XX, further proceedings on this motion will be postponed.

□ 1800

ADVANCED WEATHER MODEL COMPUTING DEVELOPMENT ACT

Mr. MILLER of Ohio. Madam Speaker, I move to suspend the rules and pass the bill (H.R. 1715) to direct the Department of Energy and the National Oceanic and Atmospheric Administration to conduct collaborative research in order to advance numerical weather and climate prediction in the United States, and for other purposes.

The Clerk read the title of the bill.

The text of the bill is as follows:

H.R. 1715

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 "Advanced Weather Model Computing Development Act".

SEC. 2. DEFINITIONS.

In this Act:

(1) DEPARTMENT.—The term "Department" means the Department of Energy.

(2) NATIONAL LABORATORY.—The term "National Laboratory" has the meaning given such term in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801).

(3) SECRETARY.—The term "Secretary" means the Secretary of Energy.

(4) ADMINISTRATOR.—The term "Administrator" means the Administrator of the National Oceanic and Atmospheric Administration.

SEC. 3. DEPARTMENT OF ENERGY AND NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION RESEARCH AND DEVELOPMENT COORDINATION.

(a) IN GENERAL.—The Secretary and Administrator shall carry out collaborative research and development activities in artificial intelligence and high performance computing focused on the advancement of climate models and operational numerical weather prediction relevant to agency missions.

(b) MEMORANDUM OF UNDERSTANDING.—The Secretary and Administrator shall carry out the activities under subsection (a) through the establishment of a memorandum of understanding, or other appropriate inter-agency agreement. Such memorandum or agreement, as the case may be, shall require the use of a competitive, merit-reviewed process, which considers applications from Federal agencies, National Laboratories, institutions of higher education, nonprofit institutions, and other appropriate entities.

(c) ACTIVITIES.—In carrying out the activities under subsection (a), the Secretary and Administrator may—

(1) conduct collaborative research to develop new methods and optimization of modeling and simulation, machine learning, data assimilation, large scale data analytics, and predictive analysis techniques;

(2) explore options for performance portability of the optimized weather model codes between the operational computing systems of the National Oceanic and Atmospheric Administration and the Department's high performance computers;

(3) develop methods to accommodate large data sets of weather and climate information;

(4) to the maximum extent practicable, and in compliance with national security policies, promote collaboration, open community-based development, and data sharing between Federal agencies, National Laboratories, institutions of higher education, nonprofit institutions, and other appropriate entities by providing the necessary access and secure data transfer capabilities; and

(5) support maintenance of and improvements to scientific computing infrastructure that the Secretary and Administrator determine appropriate.

(d) COORDINATION.—In carrying out the activities under subsection (a), the Secretary and Administrator are authorized to—

(1) carry out reimbursable agreements between the Department, the National Oceanic and Atmospheric Administration, and other entities in order to maximize the effectiveness of research and development; and

(2) collaborate with other Federal agencies as appropriate.

(e) REPORT.—Not later than two years after the date of the enactment of this Act, the Secretary and Administrator shall submit to the Committee on Science, Space, and Technology of the House of Representatives, and the Committee on Commerce, Science, and Transportation and the Committee on Energy and Natural Resources of the Senate, a report detailing the following:

(1) Interagency coordination between each Federal agency involved in the research and development activities carried out under this section.

(2) Potential opportunities to expand the technical capabilities of the Department and the National Oceanic and Atmospheric Administration.

(3) Collaborative research achievements.

(4) Areas of future mutually beneficial gains as a result of the activities described in subsection (c).

(5) Continuation of coordination between the Department and the National Oceanic and Atmospheric Administration on activities described in subsection (c).

SEC. 4. CLIMATE AND WEATHER PREDICTION ON HIGH PERFORMANCE COMPUTERS INITIATIVE.

(a) IN GENERAL.—The Administrator, in collaboration with the Secretary, shall carry out an initiative, which may leverage Department high performance computers or expertise, to run advanced models in order to conduct proof of concept scenarios in comparison with current issued forecasts and models. The Secretary and Administrator shall carry out the initiative through a competitive, merit-reviewed process, and consider applications from Federal agencies, National Laboratories, institutions of higher education, nonprofit institutions, and other appropriate entities.

(b) COMPONENTS.—In carrying out the initiative under subsection (a), the Administrator shall prevent duplication and coordinate research efforts in artificial intelligence, high performance computing, modeling and simulation, machine learning, data assimilation, large scale data analytics, and predictive analysis across the Department, and may—

(1) run real-time weather forecast scenarios to conduct comparative research between National Weather Service issued forecasts to forecasts developed through the use of operational models run on high performance computers;

(2) share relevant modeling system and applications innovations developed through the initiative, including Unified Forecast System-based applications, through community-based activities; and

(3) leverage related weather and climate efforts and data from the National Science and Technology Council, the Interagency Council for Advancing Meteorological Services, and other relevant interagency entities.

(c) REPORT.—Not later than two years after the date of the enactment of this Act, the Administrator shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation and the Committee on Energy and Natural Resources of the Senate a report evaluating the following:

(1) The effectiveness of the initiative under subsection (a), including applied research discoveries, and advanced modeling improvements achieved.

(2) Potential opportunities to expand the high performance computing capabilities of the Department and the National Oceanic and Atmospheric Administration.

(d) SUNSET.—The authority under this section shall terminate five years after the date of the enactment of this section.

SEC. 5. RESEARCH SECURITY.

The activities authorized under this Act shall be applied in a manner consistent with subtitle D of title VI of the Research and Development, Competition, and Innovation Act (enacted as division B of the CHIPS Act of 2022 (Public Law 117-167; 42 U.S.C. 19231 et seq.)).

The SPEAKER pro tempore. Pursuant to the rule, the gentleman from Ohio (Mr. MILLER) and the gentlewoman from California (Ms. LOFGREN) each will control 20 minutes.

The Chair recognizes the gentleman from Ohio.

GENERAL LEAVE

Mr. MILLER of Ohio. Madam Speaker, I ask unanimous consent that all Members may have 5 legislative days to revise and extend their remarks and include extraneous material on H.R. 1715, the bill now under consideration.

The SPEAKER pro tempore. Is there objection to the request of the gentleman from Ohio?

There was no objection.

Mr. MILLER of Ohio. Madam Speaker, I yield myself such time as I may consume.

Madam Speaker, I rise in support of my bill, H.R. 1715, the Advanced Weather Model Computing Development Act.

This legislation authorizes the collaborative research partnership between the United States Department of Energy and the National Oceanic and Atmospheric Administration to improve weather modeling and prediction on high-performance computers.

Americans rely on accurate weather forecasting before, during, and after extreme weather events. Recent severe outbreaks across the country have further highlighted the increased need for more accurate and effective prediction of extreme weather in every region of the country. This type of weather prediction relies on the analysis of increasingly large and complex datasets through high-performance computing resources.

DOE is home to some of the most advanced supercomputers, including the first exascale computer, and the most advanced scientific computer capabilities

in the world. This legislation will enable large leaps in knowledge and operational tools by leveraging DOE's high-performance computing capabilities to analyze NOAA's complex and large weather datasets.

By working together, DOE and NOAA can combine their respective expertise to solve some of today's most challenging problems in environmental science. By authorizing this partnership, we can ensure these agencies can continue their essential interagency research for years to come. We can also save taxpayer money by sharing mutually beneficial resources instead of building out duplicative capabilities at different agencies.

This legislation would codify that partnership and provide new paths forward for this important work and new mechanisms for collaboration. In this way, we can increase government efficiency by working across the larger Federal landscape, a good government measure that will not only result in the protection of lives and property but also efficiently utilize existing Federal research dollars.

It is smart, bipartisan policy, and I thank Ranking Member ROSS for working with me on this legislation.

Madam Speaker, I reserve the balance of my time.

Ms. LOFGREN. Madam Speaker, I yield myself such time as I may consume.

Madam Speaker, I rise in enthusiastic support of H.R. 1715, the Advanced Weather Model Computing Development Act. Introduced by Representatives DEBORAH ROSS and MAX MILLER, this good bipartisan legislation significantly advances the weather forecasting and climate modeling missions of the Department of Energy and the National Oceanic and Atmospheric Administration, otherwise known as NOAA, by authorizing collaborative research partnerships between the agencies.

Climate change is fueling extreme weather events, which poses significant threats to life and causes massive property damage across the United States. My home State of California has experienced billion-dollar extreme weather events and disasters. No State in our Nation is untouched by the damaging physical and emotional impacts of windstorms, flooding, and other disasters.

Deadly storms across the South and Midwest and entire communities being washed away in Alaska are only a few of the many challenges that extreme weather events and climate change pose. In my own district in California, we have seen flooding in Monterey County, in Pajaro, in Watsonville, in San Benito County, and great devastation and suffering. Supporting a robust Federal weather and climate research enterprise is invaluable to the safety and well-being of the Nation.

This bill is a necessary push forward for our weather and climate modeling capabilities, as it lets NOAA utilize

DOE's high-performing computing capabilities and expertise. It also would improve the scientific computing infrastructure between both agencies, a critical need that NOAA has repeatedly expressed as being a roadblock to more timely and accurate weather forecasts.

An important aspect of the research which this bill would support is that it would improve NOAA's ability to accurately forecast weather and climate events by improving the utilization of preexisting data streams. This increases the bang for the buck for every taxpayer dollar spent on acquiring data while also improving our Nation's resilience to weather and climate disasters.

Madam Speaker, I thank again the sponsors of this legislation. I strongly urge all Members of the House to support this timely and important bill, and I reserve the balance of my time.

Mr. MILLER of Ohio. Madam Speaker, I have no further speakers, and I reserve the balance of my time.

Ms. LOFGREN. Madam Speaker, I yield 2 minutes to the gentlewoman from North Carolina (Ms. ROSS), an enormously talented member of the Science, Space, and Technology Committee.

Ms. ROSS. Madam Speaker, I rise today in support of H.R. 1715, the Advanced Weather Model Computing Development Act.

As all Members know, the United States has witnessed an alarming rise in severe weather events. According to NOAA, in 2020 alone, the U.S. experienced 22 disasters in which the total damages exceeded \$1 billion.

North Carolina is no stranger to extreme weather. Flooding occurs an average of every 7.6 days in my home State. Hurricanes Matthew and Florence in 2016 and 2018 killed 76 people and caused a combined \$21.8 billion in damages.

As climate change continues to drive the growing number of severe weather events, accurate and timely forecasts have never been more important for protecting American lives.

This bill will enable NOAA to do just that, by fostering a groundbreaking partnership with DOE that will tap DOE's computing resources and expertise to improve weather modeling.

Our bipartisan legislation with the gentleman from Ohio (Mr. MILLER) will enhance tools available to outstanding forecasters at the National Weather Service who dedicate their time and expertise to protecting lives, property, aviation, commerce, agriculture, and so much more.

Madam Speaker, I also thank Ranking Member LOFGREN and Chairman LUCAS for their leadership. I urge my colleagues to support the bill.

Mr. MILLER of Ohio. Madam Speaker, I have no further requests for time. I am prepared to close once the gentlewoman from California closes, and I reserve the balance of my time.

Ms. LOFGREN. Madam Speaker, I yield 2 minutes to the gentlewoman

from Michigan (Ms. STEVENS), a valued member of the Science, Space, and Technology Committee.

Ms. STEVENS. Madam Speaker, I thank Ranking Member LOFGREN and my phenomenal colleague, Ms. DEBORAH ROSS, for their leadership in putting forth this piece of legislation in a bipartisan way alongside the gentleman from Ohio (Mr. MILLER). Ms. ROSS hails from Research Triangle Park, and there is no one better in this institution to understand and put forth the systems of our supercomputer technology, matching the Department of Energy alongside NOAA to get in front of these storms that are hitting us more ferociously and faster than ever before.

Every single Member of this body can talk about their experience with a storm in their State or in their district. This is very real, and we know that supercomputer technology puts forth the best and the fastest applications. The DOE technology along with NOAA and their capabilities to match these datasets will help us get in front of these storms.

Madam Speaker, I thank Ms. ROSS, a second-term member on the Science, Space, and Technology Committee, the ranking member, and the chair for their work on this bill. I urge all Members to join us in passing this bipartisan legislation, getting in front of storms, getting in front of climate change, and making people's lives better.

Ms. LOFGREN. Madam Speaker, I am grateful to Representative ROSS for the expertise and diligence and hard work that she puts in on the Science Committee. Her knowledge is invaluable, but there is something else. In this body, we know there is sometimes acrimony and fighting. She is someone, along with Mr. MILLER, who wants to get things done, who put aside that kind of dissension and work together for the betterment of our country. I am grateful to both of them.

Madam Speaker, I yield back the balance of my time.

Mr. MILLER of Ohio. Madam Speaker, I feel the same way and echo the sentiment, and I thank the gentlewoman for her comments.

As I mentioned in my opening remarks, H.R. 1715 is a good government bill that leverages existing Federal research dollars to advance weather and climate science that will protect American lives and property. It is bipartisan, commonsense legislation, which is why it recently passed unanimously through the committee.

Madam Speaker, I urge my colleagues to support this bill once again, and I yield back the balance of my time.

The SPEAKER pro tempore. The question is on the motion offered by the gentleman from Ohio (Mr. MILLER) that the House suspend the rules and pass the bill, H.R. 1715.

The question was taken.

The SPEAKER pro tempore. In the opinion of the Chair, two-thirds being in the affirmative, the ayes have it.

Mr. MILLER of Ohio. Madam Speaker, on that I demand the yeas and nays. The yeas and nays were ordered.

The SPEAKER pro tempore. Pursuant to clause 8 of rule XX, further proceedings on this motion will be postponed.

TESTING, RAPID ANALYSIS, AND NARCOTIC QUALITY RESEARCH ACT

Mr. MILLER of Ohio. Madam Speaker, I move to suspend the rules and pass the bill (H.R. 1734) to require coordinated National Institute of Standards and Technology science and research activities regarding illicit drugs containing xylazine, novel synthetic opioids, and other substances of concern, and for other purposes, as amended.

The Clerk read the title of the bill.

The text of the bill is as follows:

H.R. 1734

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 "Testing, Rapid Analysis, and Narcotic Quality Research Act" or the "TRANQ Research Act".

SEC. 2. XYLAZINE DETECTION AND ANALYSIS.

(a) IN GENERAL.—The Director shall—

(1) support NIST intramural basic measurement science and research to advance—

(A) analytical methods to identify, understand, differentiate, and categorize illicit drugs containing xylazine, novel synthetic opioids, or other emerging substances of concern;

(B) measurement technologies to shorten analysis timelines and enhance narcotic and opioid detection and analysis capabilities in illicit drugs;

(C) new data tools, techniques, and processes to identify and publicly disclose relevant information concerning illicit drugs containing xylazine, novel synthetic opioids, or other emerging substances of concern; and

(D) all other areas determined by the Director to be critical to the development and deployment of technologies to measure and analyze the presence of xylazine, novel synthetic opioids, and other emerging substances of concern in illicit drugs;

(2) support activities to inform and expand the development of near-real time spectrometry capabilities regarding xylazine, novel synthetic opioids, and other emerging compounds in illicit drugs;

(3) convene the private sector, institutions of higher education, nonprofit organizations, Federal laboratories, and other Federal agencies engaged in the analysis of illicit drugs to develop coordinated strategies and voluntary best practices for the safe handling, transport, and analysis of illicit drugs containing xylazine, novel synthetic opioids, or other emerging substances of concern;

(4) establish or expand collaborative partnerships or consortia with other government agencies engaged in counternarcotic research and development, institutions of higher education, Federal laboratories, and the private sector to enhance narcotic and opioid detection and analysis capabilities regarding xylazine, novel synthetic opioids, and other emerging substances of concern in illicit drugs; and

(5) provide opportunities for graduate and postgraduate research on the detection and identification of xylazine, novel synthetic

opioids, and other emerging substances of concern in illicit drugs.

(b) CONTROLS.—In carrying out activities authorized under this section, the Director shall ensure proper security controls are implemented to protect sensitive information, as appropriate.

(c) DEFINITIONS.—In this section:

(1) DIRECTOR.—The term "Director" means the Director of the National Institute of Standards and Technology.

(2) FEDERAL LABORATORY.—The term "Federal laboratory" has the meaning given such term in section 4 of the Stevenson-Wylder Technology Innovation Act of 1980 (15 U.S.C. 3703).

(3) INSTITUTION OF HIGHER EDUCATION.—The term "institution of higher education" has the meaning given such term in section 101 of the Higher Education Act of 1965 (19 U.S.C. 1001).

(4) NIST.—The term "NIST" means the National Institute of Standards and Technology.

(5) NONPROFIT ORGANIZATION.—The term "nonprofit organization" means an organization described in section 501(c)(3) of the Internal Revenue Code of 1986 and exempt from tax under section 501(a) of such code.

(6) XYLAZINE.—The term "xylazine" means the nonopioid tranquilizer methyl benzene compound frequently used in veterinary medicine as an emetic and sedative with analgesic and muscle relaxant properties.

SEC. 3. REPORT.

Not later than 1 year after the date of enactment of this Act, the Director of the National Institute of Standards and Technology shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report on the implementation of this Act. Such report may include legislative recommendations to improve the Director's ability to carry out section 2.

The SPEAKER pro tempore. Pursuant to the rule, the gentleman from Ohio (Mr. MILLER) and the gentlewoman from California (Ms. LOFGREN) each will control 20 minutes.

The Chair recognizes the gentleman from Ohio.

GENERAL LEAVE

Mr. MILLER of Ohio. Madam Speaker, I ask unanimous consent that all Members may have 5 legislative days to revise and extend their remarks and include extraneous material on H.R. 1734, the bill now under consideration.

The SPEAKER pro tempore. Is there objection to the request of the gentleman from Ohio?

There was no objection.

Mr. MILLER of Ohio. Madam Speaker, I yield myself such time as I may consume.

Madam Speaker, I rise in support of H.R. 1734, the TRANQ Research Act, led by the gentleman from Georgia (Mr. COLLINS) and the gentlewoman from Colorado (Ms. CARAVEO).

Unfortunately, we are all too familiar with the destruction opioids like fentanyl are causing our communities. Now these drugs are being mixed with animal tranquilizers to create deadly new combinations.

Drugs like tranq are presenting new challenges for law enforcement, healthcare professionals, and first responders. Without a better understanding of this drug, we cannot slow