

established in 1978 by Breezewood Patsy Bar Pontiac, with her final lifetime total of 425,769 pounds. Her owners say that the new record holder is your typical dairy cow, spending her time eating, chewing her cud, being milked, or resting in one of her three favorite stalls.

Mr. Speaker, 3044 is no ordinary cow. Her 478,200-pound lifetime milk production record total is equivalent to 55,605 gallons of milk, 889,674 cups of milk, 47,820 pounds of cheese—enough cheese for 127,520 12-inch pizzas—or 593,120 scoops of ice cream.

Mr. Speaker, like I said at the beginning of my time on the floor, I am proud to have milk running through my veins. Dairy is more than an industry for those in Pennsylvania. It is a way of life, and I will continue to advocate for this industry and way of life.

RECESS

The SPEAKER pro tempore. Pursuant to clause 12(a) of rule I, the Chair declares the House in recess until 2 p.m. today.

Accordingly (at 12 o'clock and 26 minutes p.m.), the House stood in recess.

□ 1400

AFTER RECESS

The recess having expired, the House was called to order by the Speaker at 2 p.m.

PRAYER

The Chaplain, the Reverend Margaret Grun Kibben, offered the following prayer:

Holy God, be our guide for the week ahead of us. In all that will be discussed, debated, and disputed, reveal Your direction in each deliberation. May each of us not only have the eyes to see how You would lead us, but a heart inclined to Your word and the will to follow Your own wherever You will take us to accomplish Your work in this place.

Call us again to humble ourselves, and in response, may we assume a posture of obedience, an attitude of surrender, and offer this day and ourselves to You.

Unburden us from the worry and anxiety that attends us, and free us from the chains that bind us, that we would learn to live our lives in hope.

With our prayers and in our living, we commit ourselves to seek first Your righteousness. Add unto us the clarity of Your claim on us this day, the wisdom of Your word in our hearts, and the certainty of Your sovereignty over our lives.

In Your strong name we pray.
Amen.

THE JOURNAL

The SPEAKER. The Chair has examined the Journal of the last day's pro-

ceedings and announces to the House the approval thereof.

Pursuant to clause 1 of rule I, the Journal stands approved.

Mr. ROSENDALE. Mr. Speaker, pursuant to clause 1, rule I, I demand a vote on agreeing to the Speaker's approval of the Journal.

The SPEAKER. The question is on the Speaker's approval of the Journal.

The question was taken; and the Speaker announced that the ayes appeared to have it.

Mr. ROSENDALE. Mr. Speaker, I object to the vote on the ground that a quorum is not present and make the point of order that a quorum is not present.

The SPEAKER. Pursuant to clause 8, rule XX, further proceedings on this question will be postponed.

The point of no quorum is considered withdrawn.

PLEDGE OF ALLEGIANCE

The SPEAKER. Will the gentleman from Montana (Mr. ROSENDALE) come forward and lead the House in the Pledge of Allegiance.

Mr. ROSENDALE led the Pledge of Allegiance as follows:

I pledge allegiance to the Flag of the United States of America, and to the Republic for which it stands, one nation under God, indivisible, with liberty and justice for all.

VALUED ALLIES OF UKRAINE

(Mr. WILSON of South Carolina asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. WILSON of South Carolina. Mr. Speaker, I am grateful as chairman of the U.S. Helsinki Commission to have led a bipartisan congressional delegation to Germany, Poland, and Ukraine with Representatives STEVE COHEN and VICTORIA SPARTZ.

In Berlin, we met with Justice State Secretary Dr. Angelika Schlunck, National Security Advisor Jens Ploetner, Ministry of Foreign Affairs State Secretary Andreas Michaelis, and Ministry of Defense Director Jasper Wieck.

After visiting Nuremberg, Lieutenant General Andrew Rohling welcomed the delegation to the 7th Army Grafenwoehr Training Area and the 10th Mountain Division trainers.

At Bucha, Ukraine, survivors of the war criminal Putin's mass murder shared stories with us, and Mayor Anatolii Fedoruk joined us. Additionally, we were joined by U.S. Ambassador Bridget Brink, U.S. Ambassador Mike Carpenter, and Defense Minister Oleksii Reznikov to thank America for the support given to efforts in Ukraine prior to meeting with President Volodymyr Zelenskyy, who emphasized his gratitude for the American commitment for democracy.

We concluded in Warsaw with U.S. Ambassador Mark Brzezinski and Polish Deputy Foreign Minister Arkadiusz Mularczyk.

Friends of democracy are inspired by the courageous Ukrainians supported by our valued allies of Germany and Poland.

In conclusion, God bless our troops, who successfully protected America for 20 years as the global war on terrorism continues moving from the Afghanistan safe haven to America.

RECESS

The SPEAKER pro tempore (Mr. ROSENDALE). Pursuant to clause 12(a) of rule I, the Chair declares the House in recess subject to the call of the Chair.

Accordingly (at 2 o'clock and 4 minutes p.m.), the House stood in recess.

□ 1745

AFTER RECESS

The recess having expired, the House was called to order by the Speaker pro tempore (Mrs. BICE) at 5 o'clock and 45 minutes p.m.

ANNOUNCEMENT BY THE SPEAKER PRO TEMPORE

The SPEAKER pro tempore. Pursuant to clause 8 of rule XX, the Chair will postpone further proceedings today on motions to suspend the rules on which a recorded vote or the yeas and nays are ordered.

The House will resume proceedings on postponed questions at a later time.

COASTAL COMMUNITIES OCEAN ACIDIFICATION ACT OF 2023

Mr. MILLER of Ohio. Madam Speaker, I move to suspend the rules and pass the bill (H.R. 676) to amend the Federal Ocean Acidification Research And Monitoring Act of 2009 to require the Secretary of Commerce, acting through the Administrator of the National Oceanic and Atmospheric Administration, to collaborate with State and local governments and Indian Tribes on vulnerability assessments related to ocean acidification, research planning, and similar activities, and for other purposes.

The Clerk read the title of the bill.

The text of the bill is as follows:

H.R. 676

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 "Coastal Communities Ocean Acidification Act of 2023".

SEC. 2. DEFINITIONS.

Section 12403 of the Federal Ocean Acidification Research And Monitoring Act of 2009 (33 U.S.C. 3702) is amended—

- (1) by striking paragraph (4);
- (2) by redesignating paragraphs (2) and (3) as paragraphs (3) and (4), respectively;
- (3) by inserting before paragraph (3), as so redesignated, the following:

“(2) INDIAN TRIBE.—The term ‘Indian Tribe’ has the meaning given the term in section 4

of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 5304).”;

(4) in paragraph (3), as redesignated by paragraph (2), by inserting “an increase of” before “carbon dioxide”; and

(5) by adding at the end the following:

“(6) SUBCOMMITTEE.—The term ‘Subcommittee’ means the National Science and Technology Council Subcommittee on Ocean Science and Technology.

“(7) UNITED STATES.—The term ‘United States’ means the States, collectively.”.

SEC. 3. IMPROVEMENT OF COLLABORATION ON OCEAN ACIDIFICATION.

(a) ONGOING INPUT MECHANISM.—Section 12404(c)(2) of the Federal Ocean Acidification Research And Monitoring Act of 2009 (33 U.S.C. 3703(c)(2)) is amended—

(1) in subparagraph (B), by striking “; and” and inserting a semicolon;

(2) in subparagraph (C), by striking the period at the end and inserting “; and”; and

(3) by adding at the end the following:

“(D) maintain or establish an ongoing mechanism (such as a liaison or other contact of the National Oceanic and Atmospheric Administration, standing meetings, or an online platform) to engage affected industry members, coastal stakeholders, community acidification networks, fishery management councils and commissions, indigenous knowledge groups, non-Federal resource managers, and scientific experts not employed by the Federal Government to provide input on research, data, and monitoring that is necessary to support on-the-ground management, decision making, and adaptation related to ocean acidification and coastal acidification and the impacts of ocean acidification and coastal acidification.”.

(b) ADVISORY BOARD MEMBERSHIP.—Section 12404(c)(3) of the Federal Ocean Acidification Research And Monitoring Act of 2009 (33 U.S.C. 3703(c)(3)) is amended—

(1) by redesignating subparagraphs (G) through (Q) as subparagraphs (H) through (R), respectively;

(2) by inserting after subparagraph (F) the following:

“(G) Two representatives from Indian Tribes, Tribal organizations, and Tribal consortia affected by ocean acidification and coastal acidification.”; and

(3) in subparagraph (H), as redesignated by paragraph (1), by striking “Six” and inserting “Four”.

(c) APPOINTMENT OF ADVISORY BOARD MEMBERS.—Section 12404(c)(4)(C) of the Federal Ocean Acidification Research And Monitoring Act of 2009 (33 U.S.C. 3703(c)(4)(C)) is amended by striking “State and local” and inserting “State, local, and Tribal”.

(d) ENGAGEMENT AND COORDINATION WITH INDIAN TRIBES.—Paragraph (9) of section 12404(c) of the Federal Ocean Acidification Research And Monitoring Act of 2009 (33 U.S.C. 3703(c)) is amended to read as follows:

“(9) ENGAGEMENT AND COORDINATION WITH INDIAN TRIBES.—

“(A) POLICY REQUIRED.—Not later than one year after the date on which the Advisory Board is established, the Advisory Board shall develop and commence maintaining a policy for engagement and coordination with Indian Tribes affected by ocean acidification and coastal acidification.

“(B) CONSULTATION.—In developing the policy under subparagraph (A), the Advisory Board shall consult with Indian Tribes affected by ocean acidification and coastal acidification.”.

(e) COLLABORATION ON VULNERABILITY ASSESSMENTS, RESEARCH PLANNING, AND SIMILAR ACTIVITIES.—Section 12404(e)(4)(A) of the Federal Ocean Acidification Research And Monitoring Act of 2009 (33 U.S.C. 3703(e)(4)(A)) is amended—

(1) by redesignating clauses (ix) and (x) as clauses (x) and (xi), respectively; and

(2) by inserting after clause (viii) the following:

“(ix) identifies the efforts of the Secretary to collaborate with State and local governments and Indian Tribes on community vulnerability assessments, research planning, and similar activities, pursuant to section 12406(e);”.

(f) CONTENTS OF STRATEGIC RESEARCH PLAN.—Section 12405(b) of the Federal Ocean Acidification Research And Monitoring Act of 2009 (33 U.S.C. 3704(b)) is amended—

(1) in paragraph (10), by striking “section 12404(c)(4)” and inserting “section 12404(e)(4);” and

(2) in paragraph (11), by striking “potentially affected industry members, coastal stakeholders, fishery management councils and commissions, Tribal governments, non-Federal resource managers, and scientific experts” and inserting “affected industry members, coastal stakeholders, community acidification networks, fishery management councils and commissions, indigenous knowledge groups, non-Federal resource managers, and scientific experts not employed by the Federal Government”.

(g) IMPROVING COLLABORATION ON NOAA OCEAN ACIDIFICATION ACTIVITIES.—Section 12406 of the Federal Ocean Acidification Research And Monitoring Act of 2009 (33 U.S.C. 3705) is amended—

(1) in subsection (a)—

(A) in paragraph (1)—

(i) in subparagraph (C), by striking “maximize” and inserting “take into consideration”; and

(ii) in subparagraph (D), by adding a semicolon at the end; and

(iii) in subparagraph (F), by striking “Tribal governments” and inserting “Indian Tribes”; and

(B) in paragraph (4), by striking “industry members, coastal stakeholders, fishery management councils and commissions, non-Federal resource managers, community acidification networks, indigenous knowledge groups, and scientific experts” and inserting “affected industry members, coastal stakeholders, community acidification networks, fishery management councils and commissions, indigenous knowledge groups, non-Federal resource managers, and scientific experts not employed by the Federal Government”;

(2) in subsection (c)—

(A) in paragraph (1), by striking “State, local, and Tribal governments” and inserting “State and local governments, Indian Tribes.”; and

(B) in paragraph (2)—

(i) in subparagraph (A), by striking “; or” and inserting a semicolon;

(ii) by redesignating subparagraph (B) as subparagraph (C);

(iii) by inserting after subparagraph (A) the following:

“(B) on ocean acidification and coastal acidification research, data, and monitoring from affected industry members, coastal stakeholders, community acidification networks, fishery management councils and commissions, indigenous knowledge groups, non-Federal resource managers, and scientific experts not employed by the Federal Government; or”; and

(iv) in subparagraph (C), as redesignated by clause (ii), by striking “State governments, local governments, Tribal governments” and inserting “State and local governments, Indian Tribes”;

(3) in subsection (d)(1)(C), by striking “Tribes or Tribal governments” and inserting “Indian Tribes, Tribal organizations, and Tribal consortia”; and

(4) by adding at the end the following:

“(e) BETTER COLLABORATION ON VULNERABILITY ASSESSMENTS, RESEARCH PLANNING, AND SIMILAR ACTIVITIES.—

“(1) IN GENERAL.—In carrying out the program under subsection (a), and in support of vulnerability assessments transmitted under section 12404(e)(4) and recommendations included in the strategic research plan described in section 12405(b)(10), the Secretary shall build upon existing activities and collaborate with State and local governments and Indian Tribes that are conducting or have completed vulnerability assessments, research planning, climate action plans, or other similar activities related to ocean acidification and coastal acidification and the impacts of ocean acidification and coastal acidification on coastal communities, for the purpose of—

“(A) supporting collaborative interagency relationships and information sharing at the State, local, and Tribal levels; and

“(B) assisting State and local governments and Indian Tribes in—

“(i) improving existing systems and programs to better address ocean acidification and coastal acidification; and

“(ii) identifying whether such activities can be used as a model for other communities.

“(2) PRIORITY.—In carrying out paragraph (1), the Secretary shall prioritize underserved populations and entities in the use of resources of the National Oceanic and Atmospheric Administration.”.

SEC. 4. TECHNICAL CORRECTIONS.

The Federal Ocean Acidification Research And Monitoring Act of 2009 (33 U.S.C. 3701 et seq.) is amended—

(1) in section 12402(1) (33 U.S.C. 3701(1)), by striking “development coordination and implementation” and inserting “development, coordination, and implementation”; and

(2) in section 12404 (33 U.S.C. 3703)—

(A) in subsection (b)(5), by striking “; and” and inserting a period;

(B) in subsection (c)(2)(A)—

(i) in clause (i), by striking “subsection (d)(2)” and inserting “subsection (e)(2)”; and

(ii) in clause (ii), by striking “subsection (d)(3)” and inserting “subsection (e)(3)”; and

(C) in subsection (d)(3), by striking “this section” and inserting “this subsection”; and

(D) in subsection (e)—

(i) in paragraph (2)(B), by striking “interagency” and inserting “the”; and

(ii) in paragraph (3), by striking “years until 2031 thereafter” and inserting “years thereafter until 2031”; and

(3) in section 12406(d)(2) (33 U.S.C. 3705(d)(2)), by striking “The Secretary to,” and inserting “The Secretary, to”.

The SPEAKER pro tempore. Pursuant to the rule, the gentleman from Ohio (Mr. MILLER) and the gentleman from Michigan (Ms. STEVENS) 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 in which to revise and extend their remarks and to include extraneous material on H.R. 676, 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. 676, the Coastal Communities Ocean Acidification Act. This bill contains simple and straightforward tweaks to an important program and existing working group. It ensures the participation of Indian Tribes and affected communities in ocean and coastal acidification activities.

Over a decade ago, the Federal Ocean Acidification Research and Monitoring Act of 2009 directed the National Oceanic and Atmospheric Administration, or NOAA, to increase their focus on ocean and coastal acidification—the process in which the chemistry of oceans is altered and made more acidic after absorbing carbon dioxide.

To do this, NOAA established an interagency working group with State and local governments, industry, academia, and other representatives. They also stood up a research program and published a strategic plan for coordinated Federal activities on acidification. Yet, while not excluded from these activities, there was no direct mention of the inclusion of Indian Tribes and communities affected by ocean and coastal acidification. This bill remedies that oversight by including specific language to coordinate vulnerability assessments and research planning with State, local, and Tribal Governments.

This bill also ensures that two representatives from Indian Tribes, Tribal organizations, or Tribal consortia affected by ocean acidification are on the Ocean Acidification Advisory Board with the other members of industry, academia, and subject matter experts.

When it comes to acidification, it is a common misconception that only communities touching the ocean see the effects. In fact, the most recent ocean acidification research plan found that the Great Lakes are projected to become more acidic at a rate similar to that of the oceans.

This finding raises concerns for me because part of my district in Ohio sits on the southern shore of Lake Erie and benefits from the \$7 billion annual economic value that the Great Lakes provide.

Luckily, NOAA recognizes the tremendous asset that the region offers and has a dedicated laboratory, the Great Lakes Environmental Research Laboratory, to conduct scientific research on the Great Lakes and their coastal ecosystems.

Madam Speaker, that is why I support the all-hands-on-deck approach this bill ensures. Smaller or overlooked communities like Indian Tribes have direct knowledge of the effects of acidification, both on the coast and inland, and can be an important resource. It only makes sense that they have a seat at the table to provide input on research, assessments, and mitigation that will benefit all of us.

I thank the gentlewoman from Maine (Ms. PINGREE) and the gentleman from Florida (Mr. WALTZ) for introducing this bill, and their many cosponsors for supporting it.

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

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

Madam Speaker, I rise in strong support of H.R. 676, the Coastal Communities Ocean Acidification Act of 2023, alongside my colleague from the State of Ohio.

In bipartisan fashion, we gather here today in Congress encouraging our colleagues to support this incredibly important piece of legislation introduced by my colleague from Maine (Ms. PINGREE) and my colleague from Florida (Mr. WALTZ), two Members who certainly understand the importance of ocean acidification and my colleague from Ohio (Mr. MILLER) is spot on.

As Members from the Great Lakes region, we do applaud NOAA's efforts to understand the Great Lakes and to observe their inner workings. At long last, we are finally now requiring the collaboration of our Tribal communities into the Ocean Acidification Board of NOAA. Tribes with their incredible expertise and their knowledge of the inner workings of our oceans will be important contributors to this board, the history of this board, and the way in which we move forward to advance the science of ocean acidification and mitigating the negative impacts of acidification on the livelihoods, traditions, and well-being of coastal communities.

Acidification has resulted from the oceans absorbing about 30 percent of the world's atmospheric carbon emissions. This change in water chemistry has certainly had detrimental impacts on the health of aquatic organisms by inhibiting their ability to grow and develop. The impacts can be felt across all levels of the ocean ecosystem, and it seriously impacts coastal economic activities, such as fisheries, aquaculture, and ecotourism.

Indeed, ocean acidification—and we know this most prominently through discussion about our reefs—has already had considerable impact on the socioeconomic parts of our oceans. It is also true that the impacts are felt well beyond coastal communities and supporting their fight against ocean and coastal acidification should be a national endeavor, which is, again, why we are bringing today's legislation before you.

H.R. 676 would improve the ability of coastal communities to respond to the challenges of acidification by including two representatives from Indian Tribes, Tribal organizations, and Tribal consortia from affected communities, thereby integrating traditional ecological knowledge into science and addressing societal inequities—including at its best.

Additionally, the bill supports the continued dissemination of research, data, and modern efforts among Federal agencies, non-Federal resource managers, and affected stakeholders by

maintaining the Ocean Acidification Information Exchange—knowledge.

Madam Speaker, I strongly urge my colleagues to support this important bipartisan legislation that rises to the challenge of ocean and coastal acidification, and I reserve the balance of my time.

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

Ms. STEVENS. Madam Speaker, I yield 2 minutes to the gentlewoman from Maine (Ms. PINGREE).

Ms. PINGREE. Madam Speaker, I thank my colleague from Michigan for both being a strong supporter of this bill and yielding me the time.

I thank the gentleman from Ohio for understanding the role of the Great Lakes and how the role of ocean acidification impacts all of us. I truly appreciate his support of this bipartisan bill.

I thank Chair LUCAS and Ranking Member LOFGREN for their work to address the impacts that climate change has had on our oceans.

Madam Speaker, I rise today in support of my bill, H.R. 676, the Coastal Communities Ocean Acidification Act, a bipartisan bill that would direct the National Oceanic and Atmospheric Administration to support the current efforts of coastal communities already facing the impacts of ocean acidification, particularly underserved and rural coastal communities, and better equip them with the resources to respond.

According to the Intergovernmental Panel on Climate Change, atmospheric carbon dioxide concentrations are now higher than at any time in the last 2 million years, and about 30 percent of the carbon dioxide we release into the atmosphere is absorbed by the ocean.

More carbon dioxide in our waters creates challenging growing conditions for marine organisms, especially those with calcium carbonate shells, such as clams, lobsters, and oysters.

Ocean acidification threatens not only our fisheries but the entire blue economy, our marine resources, industries, and jobs, as well as coastal communities like mine that depend on them. A 2020 report found that in the United States, particularly in the waters off Maine and Massachusetts, ocean acidification hot spots could lead to economic losses of \$400 million a year by 2100.

In a State renowned for its lobster and shellfish—which as you know, Madam Speaker, is Maine—you can imagine we take this threat very seriously. I am proud of the efforts in Maine to tackle this challenge, such as through implementing ocean monitoring and data collection and exploring the ability of seaweed and kelp to lower acidity.

The SPEAKER pro tempore. The time of the gentlewoman has expired.

Ms. STEVENS. Madam Speaker, I yield the gentlewoman from Maine an additional 30 seconds.

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